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The development of secretarial and administrative support staff: influential factors in the identification of need

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**The development of secretarial and administrative
support staff: influential factors in the
identification of need**

by

Murray Jack Lovell

A thesis submitted to the University of Plymouth in partial fulfilment for the
degree of

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The development of secretarial and administrative support staff: influential factors in the identification of need

Murray Jack Lovell

Abstract:

Radical advances in microelectronics applications during the 1970's precipitated rapid developments in new office technology which was held to threaten the very existence of the traditional secretarial task role. Many contemporary commentators conceived a correlative link between the emergence of the new technology and the displacement of administrative support staff, whilst others predicted that a form of "Taylorism" was about to invade the office environment with all manner of dehumanising connotations. The reality proved somewhat different and, far from eradicating the role of the secretary or reducing it to assembly-line proportions, the technology helped to facilitate the flattening of organisational structures, thereby exposing secretaries to new opportunities as they asserted control over the new communications.

Companies subsequently perceived the benefits of horizontally enlarging secretarial roles to encompass paraprofessional activities such as personnel, finance, sales and marketing, etc., or vertically extending them to undertake supervisory or monitorial tasks that were previously the domain of functional managers. Thus, the training and development of secretarial and administrative support staff became of paramount importance, yet this was frequently left to the vagaries of chance, to the whim of management, or to questionable analytical practices.

The following thesis discusses the role of the secretary in its inner and outer context and explores the literature to ascertain weaknesses in contemporary approaches to needs analysis. Moreover, from a survey of Times Top 1,000 Companies, it examines the forces for change that are influencing these organisations and charts the ways that secretarial and administrative support staff are increasingly addressing performance gaps in corporate indices of effectiveness. Equally, in combining a survey of secretaries, it establishes the range of competencies that are considered important in reconciling individual, task and organisational goals and suggests a diagnostic procedure that might effectively accomplish this without the biases and concerns that have resolutely pervaded needs analysis methodologies.

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INTRODUCTION

Recent economic, market and legislative pressures allied to technological innovation have introduced significant change issues into most organisations, with wide implications for internal systems, structures and operational methods.

Radical advances in microelectronics applications during the mid 1970's heralded rapid growth in office-based technology and the following decade saw the general acceptance of the electronic typewriter, micro-computer and word-processor and the emergence of the computer network link, desk-top publisher, laser printer and facsimile transmission. Thus, whilst the office constituted "the nerve centre of an organisation in providing the co-ordinating function for all information flows", office automation suggested the evolution of "highly flexible integrated systems that would offer much freedom of choice, mobility and expansion" in the development of associated mechanisms (Birchall and Hammond, 1981 p.15).

The resultant synthesis of telecommunications, computers and peripheral equipment provided components for:-

- text management processes
- electronic mail systems
- electronic filing, storage and information retrieval
- micrographics
- teleconferencing

and created appropriate conditions for the progressive integration of both equipment and people (Henriques and Hoskins, 1984). Management subsequently viewed long term planning as an important aspect of such integration in its endeavours to establish practices that addressed current operational needs whilst pre-empting future organisational requirements (Birchall and Hammond, 1981 p.12). Thus, related planning made it necessary for organisations to examine communications and information processing in their broader context and consider wide-ranging dimensions associated with business opportunity, systems compatibility, etc. and human resource issues associated with changing organisational structures.

Moreover, the introduction of new office technology facilitated movement from traditional pyramid shaped structures to flatter organisations with fewer levels of

management (Thompson, 1985 p.13), compounded by the redefinition of managerial roles as organisations strove to combat lagging productivity and foreign competition (Hennebach, 1989 p.44). The subsequent restructuring appeared both threatening and opportunistic for employees at all levels as they anticipated the certain impact of associated change on present methods and work content (Thompson, 1985 p.35).

Trades unions such as APEX, ASTMS, NALGO, BIFU and similar associations representing office workers, responded with concerns regarding the effect of new technology on the total number of jobs during a period when unemployment was rising both nationally and internationally, and drew up New Technology Agreements based on the premise of no compulsory redundancies (Thompson, 1985 p.11). However, a study examining automation in OECD countries (NEDO, 1983) concluded that the introduction of new technology had not generally resulted in a drop in the number of jobs, but rather had led to a considerable reallocation of female labour within organisations and changes in job content. This changing job content typically diverted emphasis to “process” skills, thereby effecting a shift to more cognitive proficiencies and giving secretarial and administrative support staff an entree into an ever increasing range of paraprofessional job functions (Hennebach, 1989 pp.44-46). Many organisations also identified the beginning of a convergence of role between manager and secretary which had similar implications for both training and careers (Bevan, 1984).

Appropriately focused training was therefore emerging as an essential feature in enabling secretarial and administrative support staff to realize their full potential, yet many organisations continued to exhibit management resistance to related training needs (The Industrial Society, 1993) or else failed to effectively manage the fit between individual development and organisational change (Fairbairns, 1991 pp.43-45). Thus, whilst there existed a proliferation of prescriptions for needs analysis, cautions nevertheless persisted regarding their suitability to effectively unify the goals of the organisation with the inner and outer environment. As a result, task roles that were subject to powerful and radical change influences often fell short of beneficial analysis due to the adoption of overly simplified prescriptions for needs analysis (Herbert and Doverspike, 1990).

In the case of secretarial and administrative support staff, this became increasingly apparent as technological and internal structural changes demanded relevant key competencies in order to meet associated challenges and opportunities, yet many organisations appeared to have left the development of such skills to chance (Fairbairns, 1991 pp.43-45) or to questionable appraisal mechanisms.

Various authors have subsequently advocated an approach to needs analysis away from simplistic task orientated determinants towards the more analytical procedures described by McGehee and Thayer (1961), Snell and Wexley (1985) and others. The encapsulation of such procedures within a performance appraisal structure would appear to offer an appropriate methodology, but its physical application is nevertheless riddled with cautions that detract from its theoretical elegance.

The evidence of such reservations has subsequently prompted the following investigation into some of the effects of recent changes in the fabric of organisations and their probable influence on the evolution, practicality and relevance of contemporary performance appraisal methodology. In proposing secretarial and administrative support personnel as the focus for the study, the author has endeavoured to select a target group that is perceivably subject to change influences yet very much in evidence across the spectrum of commercial activity. Moreover, this group represents the largest female employment category within the United Kingdom (ie., approximately 30% of all economically active women - see TABLE 2.1: HMSO & Eurostat Labour Force Surveys, 1984 - 1994) and is therefore assumed to facilitate superior sectoral balance in the accumulation of research data.

However, when considering secretarial and administrative support staff within the context of their working environments it is possible that larger companies are more likely to have introduced performance appraisal practices than their smaller counterparts. Additionally, training and development initiatives within larger organisations are probably supported with greater resources and consequently less likely to be influenced by transient factors. Hence, where an organisational perspective is sought, the survey group is selected from the Times Top 1,000 Companies and from others whose audited accounts show their turnover to be amongst the highest 4,000 within the United Kingdom.

The study commences with a review of the literature, drawing on the early precepts of McGehee and Thayer (1961) to develop a conceptual paradigm that will facilitate diagnostic needs analysis at three levels - ie., the organisation, the task and the person. Thus, the review initially focuses on:

- i) Organisational change, in order to identify the principal forces that are influencing companies to change.
- ii) Office technology and task roles, in order to examine how technological evolution is shaping working practices.

- iii) Work organisation and motivation, in order to establish the various stages of task role transition.
- iv) Performance appraisal evolution, in order to determine the strengths and weaknesses of contemporary methodologies.

The research project continues with a postal survey targeted at senior managers within the Times Top 1000 and other high turnover companies, testing the corollaries formed during the literature review and identifying competencies and behavioural dimensions that are considered important to contemporary organisations. Attendees of the 1996 London Secretarial Show are similarly questioned in order to provide a task orientated perspective on various issues and reveal the perceived needs of secretaries at an individual level.

The ensuing empirical analysis initially focuses on those external and internal contextual factors that are inducing organisations to change, examining the influences of industrial sector, geographic location and cultural orientation. It continues by investigating their effect on the task roles of secretarial and administrative support staff, and the extent that training and developmental initiatives may be linked to such factors.

Thereafter, notions of horizontal job enlargement and vertical role integration are explored in relation to change issues, with the purpose of establishing the typical training and deployment emphasis of contemporary organisations. This is subsequently related to the personal needs and aspirations of secretarial staff and contrasted with management perception of their task role transition and developmental opportunities. Comparisons are similarly made between secretaries and managers ranking of essential competencies and of the methodologies employed in the determination of associated training need.

In so doing, the stated goals of the performance appraisal are charted over two decades in order to plot the direction in which the process is evolving. A critique of the benefits and exposures of a remedial versus judgemental appraisal procedure is introduced and a prescription suggested that might assuage the biases and concerns that are seemingly inherent in contemporary needs analysis practices.

Thus, central components are identified from both surveys and incorporated into a diagnostic procedure that might facilitate effective needs analysis at the individual, task and organisational level and be responsive to the changes facing administrative support staff and their organisations.

CHAPTER ONE

AN OVERVIEW OF ORGANISATIONAL CHANGE

For many organisations, the management of change is an important contemporary issue, with the rationale extending from local and foreign competition through to national and international political events, regulation and deregulation mechanisms, environmental factions and consumer interest groups (Pettigrew, 1987 p.1). In other cases, change may be essential in order to counter performance gaps resulting from technological obsolescence, structural imbalances, and organisational transitions; these in turn leading to revenue losses, reduced productivity, unacceptable absenteeism and increased labour turnover (Glueck, 1980).

Whilst evidence would suggest that there are no universal blueprints for introducing change and solutioning work organisation and job design problems, Strong and Robinson (1990) nevertheless purport that there are profound similarities between organisations, regardless of their particular activities, workforce or clientele. They go on to claim that "Anywhere and everywhere you look, much the same practical problems occur, problems which are most effectively solved by a common set of management methods".

It is therefore a fundamental responsibility of management to maintain a dynamic equilibrium by diagnosing situations and designing adjustments that are most appropriate for coping with current conditions, and Kast and Rosenzweig (1974) embody this responsibility within four dimensions which they suggest are central to the management of change in providing:-

- i) Stability - to facilitate the achievement of current goals
- ii) Continuity - to ensure orderly change in ends or means
- iii) Adaptability - to react appropriately to external opportunities and demands as well as changing internal conditions
- iv) Innovativeness - to allow the organisation to initiate changes when conditions warrant

Forces for change are multifarious; many rooted in political economy; others associated with market competition, technological advancement and resource availability (Steers, 1977). Therefore, in analysing change issues, Pettigrew, Ferlie and McKee (1992) suggest a "process based and contextual mode of research where the organisation is seen

as embedded in its social, cultural, political and historical context". Thus, for discussion to be theoretically sound and practically useful, they argue "the necessity for continuous interplay between ideas about the context of change, the content of change and the process of change".

An analytical framework:

In exploring the various change elements and their inter-relationships, Pettigrew et al define the analytical challenge in terms of connecting up the context, content and process of change over time to explain the differential achievement of change objectives.

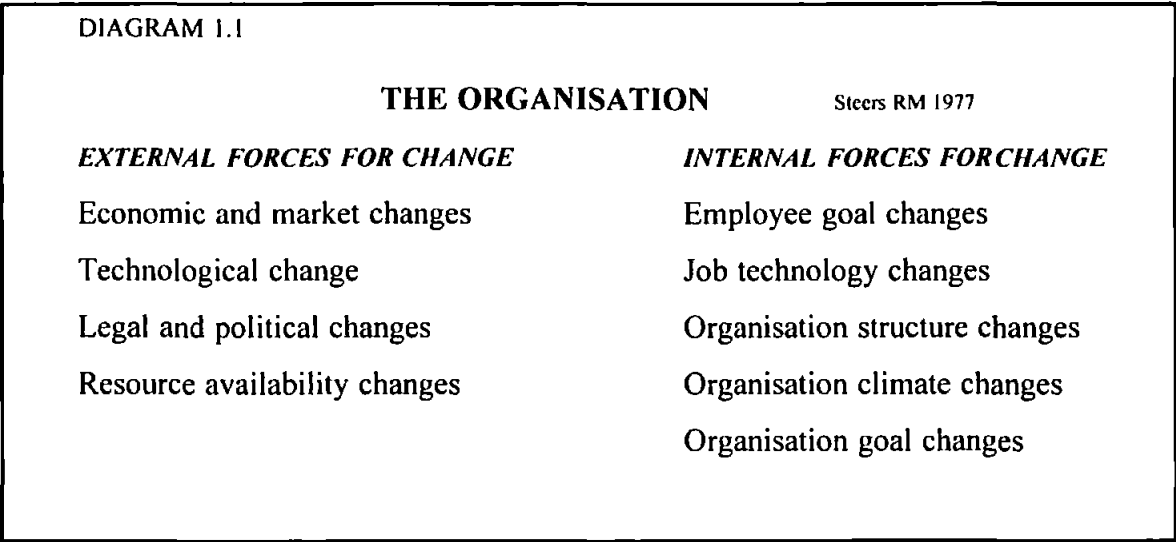
They describe the *context* of change as the prevailing external and internal forces which induce organisations and individuals within them to change. Analytically, it is helpful to distinguish between the outer and inner context, whilst nevertheless recognising that one may directly or indirectly influence the other. The outer context refers to such factors as the national economy, political interventionist policies, legislation, resource availability, social movements, and the long-term professionalisation or deprofessionalisation of vocational categories. By contrast, the inner context refers to the ongoing strategy, structure, culture, and management of organisations which help shape the processes through which ideas of change proceed.

The *content* of change is concerned with the particular area or areas of transformation under study. These may be additionally classified according to a set of abstract features which might affect adoptability: ie., some changes will be radical, others incremental; some will be technological, whilst others centred on changes to roles. Whilst this study will be principally focusing on the latter and its relevance to secretarial and administrative support staff, other parameters will assist in describing the associated change influences that are progressively shaping their task roles.

The *process* of change refers to the actions, reactions and interactions of stakeholders in the determination and implementation of change proposals. Thus, actions may constitute changes in structures, policies, processes and procedures; whereas reactions and interactions might consider the associated responses of all interested parties and the manner in which these influence the perceptions and activities of other participants.

Pettigrew et al's approach appears to offer an appropriate framework in which to identify change elements and describe the manner in which they permeate through organisations to influence the task roles and the training and developmental needs of secretarial and

administrative support staff. However, an apt complement to Pettigrew's methodology is provided by Steers (1977), whose model of 'forces for organisational change' encapsulates external and internal influences to assist the disposition of relevant change factors (see DIAGRAM 1.1):

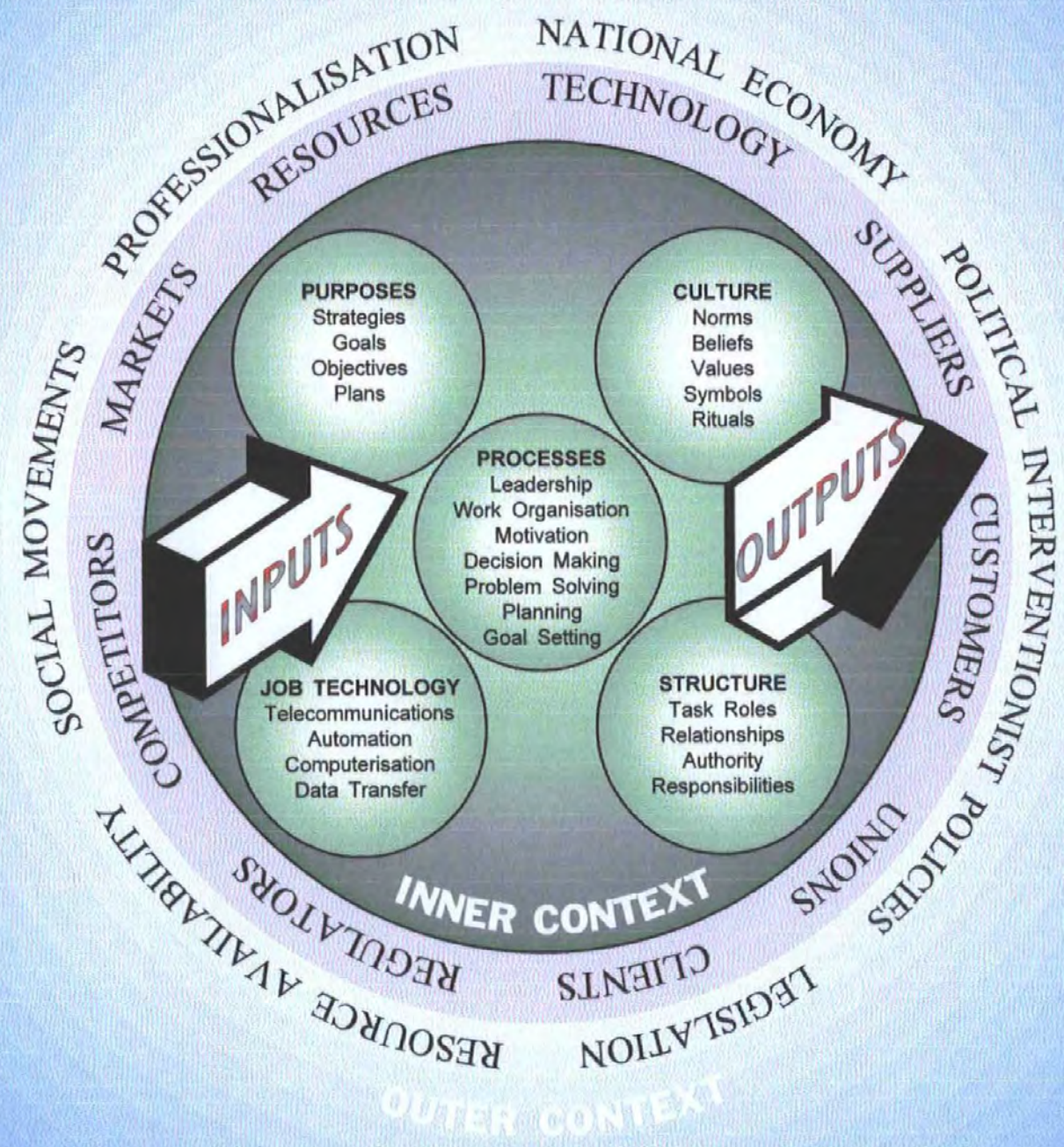


Thus, Steer's model can be located succinctly within Pettigrew et al's framework and illustrated via a derivation of the classic 'open system' organisational model proposed by Katz and Kahn (1978), Harrison (1987) and others. The resultant representation (see DIAGRAM 1.2) has expanded Steer's categorisations to include such features as social movements and professionalisation, whilst retaining the distinction between external technological influences and internal job technology changes; the former relating to advances in materials or manufacturing technology and the latter being concerned with the replacement of skilled activities by automated or computerised equipment. Hence, the integration of the concepts proposed by Steers and Pettigrew facilitates the explicit localisation of change processes and contexts and is consequently adopted in the following study.

Thus, the principal purpose of this and the following two chapters is to present an overview of contemporary influences for organisational change and form an awareness of the primary components that may ultimately shape the training and developmental needs of secretarial and administrative support staff. Therefore, this overview does not aspire to apportion measures of importance to the subjects discussed, nor imply an in-depth study of change issues, but seeks to examine pertinent topics within an appropriate analytical framework. Accordingly, the structure and categorisations suggested by Pettigrew, Steers and others (presented in DIAGRAM 1.2) are adopted in order to focus discussion and assist in the extrication of elements which are especially relevant to the task roles of administrative support staff, yet might perhaps be overlooked in the

DIAGRAM 1.2

THE ORGANISATION derived from Pettigrew, Steers, Katz and Kahn



formulation of a general needs analysis methodology.

The study commences with a brief overview of outer contextual factors in order to relate contemporary organisations to their economic, social, political and technological environments and gauge the effects of extant employment legislation. This precedes a comparatively extensive examination of inner contextual issues, encompassing the vital topic of culture and its relevance to corporate purpose and strategy, subsequently leading to a review of office technology and its possible influence on administrative task roles. The chapter after this comprises a discussion on work organisation and motivation, thereupon concluding the analysis of the more prominent inner contextual issues that are discernibly driving organisational change.

The outer context - implications of developments in the structure of economic activity:

Since the middle of the last century and particularly during the last thirty years, the structure of economic activity within the United Kingdom has changed significantly, underlining a dramatic sectoral shift from manufacturing to service based industries (see TABLE 1.1 & 1.1 EXTENDED and GRAPH 1.1 & 1.1 EXTENDED).

Whilst the relatively stable position of manufacturing between the mid 1920's and mid 1960's may in part be explained by industrial reconstruction following two world wars (George, Joll and Lynk, 1992), subsequent decline in the UK manufacturing base and corresponding increase in service sector activities (GRAPH 1.2) may be considered to be a function of a mature industrial economy. Such maturation is characterised by the movement of resources out of agriculture into manufacturing and subsequently from manufacturing into services and is illustrated in a comparison of the employment statistics of major industrial countries (see TABLE 1.2).

These statistics have clear implications for inter-category movement within occupational structures, demonstrated by the intra-sectoral changes in employment that occurred between 1971-81. The main features recorded by Howells and Green (1988 p.47) were:

- i) concentration of job losses in unskilled manual and skilled craft occupations;
- ii) a significant concentration of job losses in higher level professional and technical skills; and
- iii) an increase in managerial and service occupations.

As a contemporary illustration of intra-sectoral movement, TABLE 1.3 charts and compares changes that occurred between 1986 and 1991 in the employment categories of

three selected locations, each with similar economically active populations. Although these locations display static growth in 'skilled non-manual' and 'unskilled' labour categories, Inner London projects a dramatic increase in 'professional' and 'intermediate/technical' recruitment, whilst West Midlands and Greater Manchester sustain a significantly higher level of 'skilled manual employment'.

General increases in managerial and service occupations were followed by substantial employment growth in banking, finance and insurance disciplines, where during 1981-84 an additional 280,000 jobs were generated. A proportional increase in demand for clerical and secretarial skills resulted in associated shortages which were particularly acute in London and the South East. Despite the possibility of trend effects related to economic recession, this regional scarcity has persisted and, moreover, is forecast to grow by the London Region Training Agency (Povall et al, 1991).

Whilst it is appealing to suggest that intra-sectoral movements might adjust such imbalances, the uneven socio-spatial distribution of labour across the UK precludes a simplistic solution based on localised labour mobility and points to more strategic approaches encapsulated in human resource policies, technological alternatives, or various relocation options which may offer additional economic or strategic benefits. Howells and Green (1988 pp.47-49) align this uneven distribution of occupations with that of industries, describing the long-standing social division of labour in terms of a white collar/blue collar dichotomy having clear geographical dimensions; with industrial and organisational structure favouring the South.

Green (1985) reflects this socio-spatial division of labour in a case study comparison of Tyne and Wear and Berkshire, where managerial, administrative and higher level service skills were found to be under-represented in the northern location and over-represented in the southern district. Of significance is the notion that generic training implications may have a regional emphasis and therefore somehow enmeshed within the white collar/blue collar dichotomy.

Moreover, such effects may be further amplified by the comparatively low mobility of secretarial and administrative support staff, illustrated in Daniels' (1980) survey of offices that had recently decentralised to five urban towns, and where 75.6% of clerical staff had an employment history limited to the same town or otherwise had no previous work experience (see TABLE 1.4). This, coupled with the regional intensification of similar manufacturing and service industries, may well indicate inherent cultural and other behavioural aspects that have wider inner contextual ramifications in training for change.

Thus, whilst regional influences may affect the under or over representation of labour sectors, the comparatively low mobility of administrative support staff allied to the regional intensification of similar industries and services might well compound individual and group values that have developed within a localised environment.

Macroeconomic influences for change:

Whilst Governmental judgements in macroeconomic management during the late 80's and early 90's may have accelerated the process of structural change, sufficient evidence exists to suggest that many of the changes have been evident for a number of years and are shared by other countries with similarly mature economies (Driver and Dunne, 1992 pp.3-4). However, increasing growth within the non-manufacturing sector during the 1970's allied to the changing structure of manufacturing industry, has prompted differing perceptions regarding the cause and effect of political macroeconomic decision-making.

Without doubt, the various oil-shock crises during the early 1970's and the subsequent 1979-81 recession, had considerable impact on the structure of manufacturing industry, contributing to a slow recovery from the effects of high exchange rates and deflationary monetarist policies. An analysis of the period 1979-84 by Barker and Forssell (1992) concluded that such policies led to a large reduction in output of non-oil tradeables, originating from a change in mix of final demand. Such change was shown to be attributable to the increased penetration of imports and parallel loss of export markets. They also point, however, to a frequently ignored increase in services output during this period which more than compensated for the decline in the manufacturing sector.

The subsequent boom period during the mid 1980's has been variously attributed to errors in macroeconomic management, linked to a fundamental failure to appreciate the wider implications of structural change and economic growth. The resultant failure to control inflation and improve balance of payment deficits led to high interest rates, followed by economic recession before the end of that decade (Driver and Dunne, 1992 p.1).

Despite the prevalent effects of recession and progressive shift from a manufacturing to service based economy, opinion remains divided regarding the long term significance of deindustrialisation.

Researchers advocating "positive deindustrialisation" support an approach analogous to Darwinian theory. They argue that fitter firms and industries survive and prosper by virtue of superior efficiency and competitiveness, thereby realising greater opportunities

within national and international markets. Thus, the growing demand for public and private services and corresponding increases in service sector employment, are supported by strong manufacturing growth in output and productivity (Maynard, 1988). They consequently disclaim concerns regarding a decline in manufacturing industry, viewing the position as indicative of expanding potential within the service sector which ultimately encourages entrepreneurial organisations to develop the types of service enterprise at which the UK traditionally excels.

Alternatively, other authors see the current position in terms of "negative deindustrialisation", arguing that increases in service activities are developing out of a weakening manufacturing sector which is largely contributing to a stagnating economy (Green, 1989). Significant growth in the UK's manufacturing base is consequently considered essential in order to reverse this trend and provide appropriate conditions for economic recovery.

Whichever view is taken, it is clear that structural change is a crucial aspect of the development of the UK economy (Driver and Dunne, 1992 p.13), whilst the way in which organisations assess the economic, business and political climate around them determines their strategies, structures, technologies and cultures (Whipp et al, 1987). However, the causes of change in the structure of economic activity are nevertheless complex and include: changes in the pattern of demand; product and process innovation; technical progress; factor substitution; international competition; and Government interventionist policies (Steers, 1977). Each of these aspects may evoke varying degrees of organisational transformation with corresponding implications for training and development, whilst their relative importance would be determined by more abstract features associated with the adoptability of strategic programmes (Whipp et al, 1987).

Technological influences for change:

In recent years, technological innovation has introduced wide-ranging change into both mature and developing economies, particularly in the area of microelectronics applications where it has dramatically influenced indigenous and traditional industries (eg., Swiss watch manufacturing; printing; textile; chemical; banking; etc.) and supported rapid industrialisation in Far Eastern countries (eg., mass-produced consumer electronics). Thus, whilst there is a host of factors that determine economic performance such as interest rates, savings ratio, investment ratio, total demand, external trade balances, historic economic structure, cyclical influences, etc., Braun and Senker (1982) suggest

that technology enters the equation in three fundamental ways:

1. *Technology is a major determinant of skills required in the operation of the economy*

Here they identify three current assertions relating to changes in skills requirements, each typifying the general fear or optimism associated with the wider introduction of new technology:

- i) The drive for increased productivity will be achieved by ever greater division and mechanisation of labour. Many control and decision functions will be taken over by machines and greater control of the workforce will result from increased machine pacing. Consequently, overall deskilling will occur, with requirements for new skills being outweighed by the loss of traditional activities.
- ii) Polarisation of skills will occur as highly qualified technologists design, develop and maintain equipment operated by unskilled machine minders.

Such pessimism regarding automation follows a tradition of labour process theory which is rooted in Taylorism and more recently propounded by authors such as Braverman (1974), Zimbalist (1979) and Cooley (1980). These authors subscribe to the notion that behind the movements towards fragmentation, deskilling and intensification, is the progressive transference of control over the labour process into the hands of management. Braverman, however, argues that whilst Taylorism is concerned with the control and organisation of the labour process at any given level of technology, this is independent of the advance of technology, which simply offers to management the opportunity to do by wholly mechanical means that which it previously attempted to do by organisational and disciplinary means.

- iii) Tasks associated with new technology will become increasingly sophisticated in line with technological advancement, introducing new service activities into the economy and increasing total demand for skills.

2. *Technology is an important factor in establishing the competitive position of firms in the international market, where it is perceived as indicative of the relative quality of goods or services*

In influencing design, construction, quality and reliability, technology can revive saturated or stagnant markets by stimulating demand for perceptively improved products. This has a fundamental effect on the determination of product life cycles, as technologically outdated products are normally excluded from competitive markets, whilst

innovative products can initiate new ones.

3. *Technology influences the overall productivity of the economy by acting upon factor productivity, thereby determining the price competitive position of firms*

Production technology largely establishes how effectively factors of production are utilised and is therefore one of the crucial determinants of overall productivity and, consequently, total economic activity and employment. It can similarly suggest cost-effective and novel alternatives to conventional production methods and resource demands, implying an important contribution to current and future environmental issues.

Braun and Senker (1982) argue that whilst new technology may promote greater efficiencies, a balance should be maintained between productivity and effective demand, and that such balance should be determined by policy - either at organisational, industrial, or national level. This, they affirm, will ensure that technology does not denigrate labour in the process of wealth creation and should assist in establishing the appropriate economic conditions for full employment.

Towards professionalisation or deprofessionalisation?

It has been suggested by Bell (1968) and others from differing academic persuasions, that we will shortly live in a 'post-industrial' society where the professional will be pre-eminent. The rationale for this prediction arises from a conspicuous knowledge explosion in science and technology, subsequently necessitating "increasing numbers of professionals who have mastered the various bodies of esoteric information, and are capable of applying their technical skill and expertise to the manifold problems of mankind on a vulnerable and shrinking planet".

Whilst the literature applies various attributes to the rank of 'profession', Flexner (1915) established the following criteria which provided the elements for many subsequent definitions; proposing that a profession:

- i) is based on intellectual activity
- ii) requires from its members the possession of a considerable amount of knowledge and learning
- iii) has definite and practical purposes
- iv) has certain techniques that can be communicated
- v) has an effective self-organisation
- vi) is motivated by a desire to work for the welfare of society

Greenwood (1962) further distilled these characteristics into five elements that professions appear to possess, specifically:

1. Systems theory
2. Authority
3. Community sanction
4. Ethical codes
5. A culture

Thus, the four great person professions, ie., law, medicine, university teaching and the ministry (Goode, 1969) fit readily within this profile, as perhaps do other occupations which appear to exhibit these elements and perceptively function at similar social levels. However, Goode suggests that these other occupations may be viewed as qualitatively different, for they will be less professional in such traits as cohesion, commitment to norms of service, homogeneity of membership, and control over professional violations. These lesser aspirants are therefore categorised 'semi-professional' by Etzioni (1966) and comprise such occupations as school teachers, nurses, social workers, and others who do not meet the requirements of full professional status because they are typically:

- i) more concerned with the communication than the application of knowledge
- ii) less likely to be guaranteed privileged communication
- iii) rarely directly concerned with matters of life and death

However, Haug (1973) suggests that professions are increasingly buttressed within bureaucratic work settings and consequently the knowledge - service - autonomy model is perhaps being rendered obsolete. Additionally, the rapid explosion of knowledge is of such proportion that no one person can hope to grasp all new findings and techniques within a given professional field and thus the expertise monopoly is therefore, by necessity, maintained through specialisation. This in turn is attracting other disciplines through paraprofessional association, perhaps where peripheral skills, local knowledge and support functions are essential components of the specialist activity.

Haug therefore argues that deprofessionalisation is the trend of the future as professional occupations relinquish their monopoly over knowledge, service ethos and expectations of work autonomy. Indeed, the division of professional occupations into ever-decreasing slivers of specialisation will, it is suggested, be re-aggregated, and from this will re-emerge occupational generalists as palliatives for both professional alienation and fragmented client care.

From the polarised viewpoints of Bell and Haug it is perhaps imprudent to anticipate

future effects of professionalisation or deprofessionalisation on employment sectors, yet sufficient evidence exists to acknowledge the progressive involvement of administrative support staff and other occupational groups in a wide range of paraprofessional activities across the spectrum of commerce and industry. Interestingly, such change was prophesied some fifty years ago, when Carr-Saunders and Wilson (1944) predicted a gradual extension of professionalism into all occupational fields, suggesting that just as the labourer is becoming a figure of the past, so might all occupations evolve some kind of vocational association or organisation. Of specific relevance to this study is Hennebach's (1989) observance of the paraprofessional secretary, who is increasingly becoming involved in such areas as personnel, finance, public relations, etc. and undertaking tasks that might previously have been the responsibility of a functional manager or qualified professional.

Organisations and legislation:

Whatever the activity, all organisations are subject to various formal obligations which serve to provide a statutory framework for their operations.

Notwithstanding the fact that individuals within them must function within the law of the land in order to avoid criminal prosecution, most relevant legislation is of a civil dimension and permeates through every sphere of organisational activity. Although necessarily complex in interpretation, the principle areas affecting business enterprises may be readily categorised and defined in comparatively simplistic terms:

The *law of contract* describes an agreement which various parties have voluntarily entered into and are evoked to obtain recompense for an inexcusable failure to perform the contractual obligations. Such a contract may be written or oral, prescribed or implied, and is no less binding for this other than an inherent difficulty in proving its existence or the terms under which it was made.

The *law of tort* imposes a duty not to injure others, either physically, financially, or by lowering their reputation. The most frequently encountered tort is negligence, commonly manifested in industrial and road accidents, but increasingly extending to acts of nuisance.

The *law of property* is a combination of rules relating *a)* purely to property; and *b)* to the application of general legal rules of contract which apply specifically to property. The law recognises property as either 'personal' - comprising movable chattels and intangibles

such as copyrights, patents, trademarks and company shares; or 'real' - referring to land, buildings and the freehold interests in such.

Constitutional law is concerned with regulating the principle mechanisms of government and their impact on the individual.

Whilst each of the aforementioned have a part to play in underlining organisational behaviour, it is perhaps the following areas of civil law that provide most shape to the policies and practices of contemporary businesses:

Commercial law involves matters relating to agency, sale of goods (Sale of Goods Act 1979), negotiable instruments and other factors relating to business transactions and consumer protection.

Company law applies common law and statutory rules to companies as a mechanism for regulating their dealings with shareholders, employees and creditors. It makes provisions for rules of conduct and procedure if partners have not made a formal agreement governing their duties, rights and obligations (Partnership Act 1890); and prescribes the limits of liability regarding company membership (Companies Acts 1948 and 1967).

Employment law involves special and general rules of contract but also encompasses common law and statutory rights and obligations between employer and employee. Thus, related acts have relevance to every employer, possibly exhibiting more far-reaching influences on organisations and the individuals within them than any other category of law. The degree with which such acts have improved working practices, created equal opportunities, dispelled discrimination and contributed to structural change is perhaps not quantifiable, but they may arguably have helped to forge conditions for the democratisation of the workplace and the progressive emancipation of a significant proportion of the workforce. Equally, another viewpoint suggests that employment legislation introduced throughout the 80's and 90's has served to progressively undermine collective bargaining and trade union recognition, introducing new flexibilities in the management of individual employees at the expense of union power and the employment rights of the individual (Gospel and Palmer, 1993).

Moreover, in presenting a dissertation on the impact of employment legislation, Clifton and Tatton-Brown (1979) refer to widely held concerns regarding its possible effect on recruitment. In particular they echo a suggestion that "the development of a platform of statutory rights in employment has led employers to be increasingly cautious when

considering decisions to expand their labour force, and thus the rights of employees in employment may have been gained at the cost of some reduction in total employment".

They also point to persistent criticisms of prevailing employment legislation, revolving around the reduced ability of small firms to *a)* trim their labour force in line with business downturns; and *b)* dismiss unsatisfactory workers. Daniel and Stilgoe (1978), however, suggest that for larger firms there is little effect on numbers recruited in practice, though it does have considerable effect on methods of recruitment.

Clifton and Tatton-Brown conclude their study by suggesting that employers are subsequently becoming increasingly careful about whom they employ, tending to look more closely at their internal labour market before recruiting. However, whilst this may perceivably have been the case throughout the 70's, more recent legislation may have effectively redressed employer concerns in the process of eroding both union and individual employment protection rights (Legge, 1995). For example, the *Employment Act 1980* repealed procedures for extending collective agreements and promoting trade union recognition. The *Employment Act 1982* tightened the law on closed shops by forbidding membership restricted contracts, whilst the *Trade Union Act 1984* sought to democratise unions by placing constraints on how unions conducted their internal affairs. The *Employment Act 1988* strengthened the rights of individual employees to contest union activity and the *Employment Act 1990* consolidated this by legislating against refusal of employment on grounds relating to union membership. The *Trade Union Reform and Employment Rights Act 1993* attacked the principals of collectivism by allowing individuals to join any union of their choice and by requiring unions to adopt administrative procedures that have adversely influenced membership numbers and union finances (see Legge, 1995 p.263).

Whilst on the face of it such legislation has perceivably served to isolate the individual employee from the excesses of collectivism and introduce greater democracy in union activity, it nonetheless may have conjunctively constrained the rights of the individual. Thus, the *Employment Act 1980*, *Wages Act 1986*, *Employment Act 1989* and the *Trade Union Reform and Employment Rights Act 1993* have, according to Legge, limited employees unfair dismissal and maternity rights and introduced the threat of common law intervention into the arena of industrial relations. Whether or not post-Conservative legislation will subsequently overturn the balance is a matter for conjecture, but it is nevertheless important to put the overall influence of employment legislation in perspective. This appears to be adequately accomplished by Clifton and Tatton-Brown

(1979) who, despite the legislative balance prevailing at the time, report that the measure of concern which employment and other statutory legislation evoke in small firms is comparatively low when ranked alongside other factors typically affecting modern businesses.

Environmental pressures and the relevance of the small firm model:

Reasons for organisations to change are multifaceted, but are ultimately spawned from a need to survive and regenerate (Pettigrew, 1987). However, whilst there may be profound similarities between organisations, regardless of their particular activities, workforce or clientele (Strong and Robinson, 1990) the larger organisation may appear to be less influenced by transient change. Consequently, the small firm is perhaps an appropriate barometer for gauging the pressures that are acting on contemporary businesses, particularly as such organisations are unlikely to have the resources of larger companies to insulate themselves from prolonged exposure to adverse environmental conditions. Thus, the small firm model is included in this study in order to draw an appreciation of those factors that might have a significant effect on businesses in general but from which the larger firm may be seemingly cushioned.

The previously cited work by Clifton and Tatton-Brown (1979) recorded the fundamental difficulties experienced by each of 301 small firms in conducting their day-to-day business. Most frequently mentioned was lack of finance, followed by lack of orders and staff recruitment problems, whilst issues such as employment legislation and government regulations accounted for a relatively small percentage of associated difficulties. Although a comparatively early analysis, its significance is nevertheless reflected in the recent study conducted by Aston University for the Department of Trade and Industry (1991), where it was found that problems in the labour market were more frequently referred to than any other group of problems, including those of financing. In a similar study by the Cambridge Small Business Centre (1992), matters were reversed, with finance issues being of greater concern, but nevertheless confirming that labour market and employment issues are major sources of problems for the small firms sector (see Atkinson and Storey, 1994). In the following extract from the Clifton and Tatton-Brown analysis, rank A refers to the single main difficulty identified by the 301 companies, and rank B aggregates all stated difficulties, to produce a total of 597 problems:

TABLE 1.5

Clifton R; Tatton-Brown C (1979)

Difficulties Encountered By Small Firms

	A%	B%
Lack of finance	20	31
Lack of orders/business	13	21
Acquiring good/experienced/hard-working staff	13	21
VAT	7	16
Acquiring staff labour	7	11
Paperwork/form filling	6	13
Competition from abroad/dumping	6	12
High running costs (electricity, rent etc.)	6	14
Inflation	5	9
Taxation (other than VAT/PAYE/National Insurance)	4	11
Capital costs (machinery/stock)	4	7
Inability to meet demand	3	5
Premises too small/no room to expand	3	5
Employment legislation	2	6
Government regulations/controls	2	6
Difficulty obtaining equipment/spares	2	6
Unions	1	3
Absenteeism/staff won't work	1	3
School leavers won't work	1	2
People receive more on Social Security	1	2
Health and safety regulations	<1	2
Other problems	4	11
N	301	597

However, it can be fairly argued that some of the administrative problems absorbing the energies of small companies may well be amplified due to a deficiency of appropriate skill resources. Similarly, difficulties associated with finance might reflect the kind of cash-flow and supply problems from which the larger company may be closeted. Such issues might, in turn, deflect managerial focus away from strategic, long-term developments towards a form of crisis management, necessitating an introverted, short-term view of the business environment.

Despite these cautions, it may seem reasonable to suggest that the small firm provides a sufficiently representative model in which to form an understanding of the range and relative intensity of the pressures acting on commercial enterprises of all sizes. Thus, problems associated with the acquisition of good, experienced and hard-working staff (ranked equal second in the analysis), are likely to be as problematic for larger organisations as they are for their smaller counterparts. Consequently, the predominance of such difficulties would appear to endorse the need for exacting recruitment and

selection procedures, effective needs analysis, focused training and the provision of realisable career paths within every organisation.

The inner context - the nature of cultural change:

Whipp, Rosenfeld and Pettigrew (1987 p.15) assert that a critical factor affecting the relative competitive position of firms must be their capacity to adjust and adapt to major changes in their environments and thereby improve their competitive performance.

Unfortunately, the diverse nature of economic, political, business and social conditions preclude a generic formula for devising and implementing effective organisational strategies, suggesting to a greater degree, dependency on subjective elements associated with perception, leadership qualities and the vicariousness of chance.

Additionally, an important variable relating to change influences is concerned with the extent to which such forces are incremental or radical, the former possibly inspiring a response based on the process of diffusion, and the latter meriting wider entrepreneurial involvement (Pettigrew et al, 1992). However, whilst diffusion research sustained academic credibility until the mid 1980's, the diffusion perspective was subsequently criticised due to the assumptions that were made regarding the relative stability of environmental and organisational conditions. In many instances, changes to such conditions have been dramatic and top-down restructuring has consequently been adopted as the appropriate dominant motor for institutional change, affecting not only the attitudes and task roles of administrative support personnel but also those of their managers (Hennebach, 1989 p.44)

Thus, whilst deregulation, mergers, joint ventures and corporate redirection may considerably modify structures, functional methodology and management processes, it is the often essential need to introduce change in the value systems, norms and behaviour that make up culture that has the most immediate training implication, yet is perhaps the hardest transition to accomplish in the short term. Authors such as Dumaine (1990) suggest a period of between five and ten years for significant cultural improvements to be realised, yet it is increasingly recognised as one of the key strategic paths by which company change and revitalisation can take place (Burack, 1991).

Allaire and Firsirotu (1984) define culture as "a system of shared and meaningful symbols manifested in myths, ideology and values and in multiple cultural artefacts". They suggest that an analytical distinction exists between the sociostructural system -

comprising of structures, strategies, policies and processes; and the cultural system - based on myths, values and ideology, enabling the relationship between the two to be considered in terms of the degree to which one legitimises and supports the other.

Schein (1984) purports that visible artefacts represented by dress, architecture, technology, behaviour patterns, etc., are supported by preconscious assumptions regarding the organisation and its relationship to aspects of the external environment. Thus, the notion that behavioural norms and expectations represent the personality of the organisation and result from subliminal organisational and environmental conditioning, illustrates the deeply ingrained nature of corporate culture. The fact that such culture is internalised over the years by a process of behavioural experimentation, assimilation and adaptation, establishes the inherent difficulty in modifying organisational culture, particularly as its very existence is concerned with protecting group norms and social relationships (Burack, 1991).

However, many organisations have recognised the need to implement radical changes in business strategy. In a relatively stable business environment, the elements of a well-entrenched and adhesive corporate culture are supportive of the company's mission and success and according to Schein (1985) should be nurtured and encouraged.

Conversely, in the face of significant change, these very same elements may threaten adaptation if they are not modified to fit new business realities. For example, where a company has a history of commercial success with established assumptions regarding itself and the environment, it is unlikely to readily challenge or re-examine those assumptions. Additionally, because they justify past performance and consequently represent aspects of corporate self esteem, such assumptions tend to operate as filters to alternative strategies for survival and regeneration. Therefore, despite clear argument and supporting data, some organisations will avoid change even if it is strategically essential.

However, in reacting to national and international political pressures, regulation and deregulation mechanisms, and environmental and consumer interest groups, many firms are using acquisitions, organic growth and joint ventures as the most appropriate vehicles for diversification and commercial success. In other cases, predictable yet uninspiring performances are motivating organisations to re-examine some of their more idiosyncratic beliefs and traditions, particularly where these have evolved from positions of market dominance.

The importance of adaptive culture:

The importance of developing adaptive cultures in harmony with their business environments is discussed by Kotter and Heskett (1992 pp.142-145) who suggest that failure to recognise this is often symbolic of strong, yet arrogant and insular cultures. They purport that such characteristics are indicative of unhealthy corporate cultures that typically exhibit low regard for customers, employees, stockholders and functional leaders. Furthermore, such organisations have a tendency to stifle initiative and innovation within a blanket of centralisation and bureaucracy, potentially contributing to performance deterioration once historical momentum has waned.

In other cases, organisations have had change forced upon them, perhaps where they have constituted part of the Government's privatisation programme. The rationale for privatisation proposes that stock market processes and competitive influences will result in the transfer of commercial disciplines into organisations, thereby improving internal efficiencies and enhancing customer services (Woodward, 1987). Thus, notwithstanding industries that are by nature monopolistic (eg., British Telecommunications, British Gas, CEEB, Regional Water Authorities, etc.), the principal aim of the programme is to reduce or eliminate entry barriers and provide the conditions for veritable competition and extended consumer choice.

Hatch (1987), describes the privatisation process as a mechanism for:

- i) Increasing competition and spreading consumer choice
- ii) Reducing the public sector borrowing requirement and increasing Government revenues
- iii) Providing the public and workforce with a stake in the industry
- iv) Allowing nationalised industry management to escape from "the dead hand of Whitehall"

It is readily apparent that such radical change should merit a re-evaluation of organisational context, which in turn might perhaps inspire a shift away from bureaucratic thinking to more competitive business philosophies in order to attract customers, employees and investors. Related actions may include decentralisation, cost control, quality emphasis, salary reviews, improved dividends, etc. The cultural implications might consequently suggest a customer orientated approach that encourages initiative and performance through focused strategy, improved communications, shorter decision paths, quality awareness, entrepreneurial appreciation, etc. Existing shared values might be

repressed, cultivated or augmented by the endorsement of positive behaviour; typically through management sanction, reward mechanisms, improvement schemes, company meetings, corporate jingoism, training, etc. Of central concern, however, is the need to maintain an effective fit between context and culture and thereby evolve appropriate organisational behaviour in relation to the business environment (Kotter and Heskett, 1992 pp.28-29).

The comparative success with which differing organisations inspire appropriate cultural change may be evaluated through analysis, but Woodward (1987) cautions that the quality of the methodology used within the evaluation process may fail to adequately determine the criteria of effectiveness, defined as the fit between the organisation and the environment; and organisational health, where expressed corporate values are compared with inherent organisational behaviour.

Of principle importance, however, is the premise that inherent sectoral and regional cultures interact with organisational based values to produce corporate personalities and, consequently, perceptions of best-fit may very much depend on the normative experiences of the participants.

Thus, organisations, and the individuals within them, may react substantially differently to internal and external stimuli, despite sharing similar structural and functional characteristics with other entities. In terms of individual attitudes and behaviours, apparent differences may result from socially shaped cultural dimensions; but for collective patterns of organisational behaviour, such influences may have their roots in company history or in various socio-spatial factors. Examples of such factors can be drawn from previous discussion and include:

- i) Regional variations in organisational behaviour, emphasised by the social division of labour and illustrated in the white collar/blue collar dichotomy (Howells and Green, 1988)
- ii) Intra-sectoral movement of personnel, introducing group perceptions of performance criteria that may have been formed within differing manufacturing and service environments (Howells and Green, 1988)
- iii) Organisational relocation and decentralisation movements, to locations that are characterised by the regional intensification of similar industries and cultures (Green, 1985)
- iv) Mobility of labour constraints, where group experiences are comparatively

limited by industrial sector or region (Daniels, 1980)

- (v) Enforced ideological change, resulting from privatisation processes or from other commercially driven pressures to increase sensitivity to consumer needs (Hatch, 1987)

However, there is sufficient evidence to suggest that a generalised relationship exists between the culture of an organisation and its long-term economic performance (Kotter and Heskett, 1992 pp.11-12). Therefore functional and geographical dimensions that may adversely shape group behaviour should be appropriately addressed as significant training issues on the grounds that if they affect culture they will ultimately influence performance.

Culture as a key to strategic change:

Opinion remains divided regarding the manner in which organisational culture can best be influenced, but consensus prevails in recognising its importance in creating, implementing and maintaining competitive advantage.

Various commentators have identified its inter-relationship with structure and strategy and subsequently propound cultural change as a powerful strategic device. Thus, authors such as Burack (1991) have observed that where accepted organisational methodology is challenged to introduce changes in corporate structures, work relationships, jobs, decision making and other organisational processes, then cultural focus is viewed as instrumental and critical to the longer term success of strategic plans.

In many cases, the need to implement change is bound up with aspects of competitiveness, market share and profitability, whilst factors such as improving quality, increasing efficiency and adopting a customer orientation are fundamental strategies in achieving related objectives (Dumaine, 1990). Organisations with appropriate cultures respond by developing and successfully implementing new policies and strategies that satisfy criteria of performance, and authors such as Peters and Waterman (1982) have attempted to establish their characteristics. Many of such characteristics appear strongly cultural in nature, orientating towards the customer and encouraging innovation, but Gordon (1985) cautions on the relatively narrow focus in the range of organisations considered (ie, high tech and consumer product companies) and points to others operating in less dynamic environments (eg, publicly owned utilities, hospitals and government departments).

Similarly, in discussing the relationship between culture and performance, Kotter and

Heskett (1992 pp.28-29) assert that there is no such thing as generically good cultural content that is appropriate for every organisation. Instead, they posit that culture is good only if it fits its context, such context relating to the objective conditions of the industry, the segment of industry specified by an organisation's strategy, or the business strategy itself. Thus, the notion that different industries develop different cultural patterns to suit their business demands is logically sound, and Gordon (1985) offers empirical evidence to support this assertion in his discussion on the relationship of corporate culture to industry sector and corporate performance. Consequently, in training for change there is an implied need for organisations to appreciate the specific nature of collective outer and inner contextual influences and thereby adopt an integrated approach to cultural change far removed from the generalised or faddish panaceas cautioned by Kilmann, Saxton and Serpa (1985).

Contemporary prescriptions for cultural change:

An examination of the literature shows a plethora of frameworks for the "successful" implementation of cultural change, with emphasis divided between authors propounding top-down interactive processes and others suggesting organic bottom-up methodology.

Similarly, controversy reigns regarding the degree of ease with which organisational cultures can be deliberately managed or changed. Authors such as Peters and Waterman (1982), Deal and Kennedy (1982) and Kilmann (1982) imply that cultures can be readily manipulated via direct, intentional actions, whereas other researchers such as Uttal (1983), Schwartz and Davis (1981) and Dorson (1972) propound that implementing such change is riddled with difficulties, perhaps to the point of impossibility.

In collating principle arguments from various sources, Trice and Beyer (1985) suggest that the reality lies somewhere between these extremes, but nevertheless consider it to be a gradual and difficult process. Of relevance to this study, however, is a general concurrence that the route to cultural change is down a long and tortuous path and consequently the five to ten year cycle purported by Dumaine (1990) may not be an unqualified exaggeration. This is illustrated in a paper by Smith, Whittle, Tranfield and Foster (1993) who, in discussing the development of quality culture through TQM practices, observed that two-thirds of all TQ programmes studied "ran out of steam" or "ground to a halt once the first eighteen to twenty four month honeymoon period was over".

In explaining related factors, they draw on a conceptual framework introduced by Mintzberg during a workshop presentation to the Strategic Planning Society, London (1989), where it was suggested that three types of behaviour shape strategy, specifically:

1. Planning
2. Visionary
3. Learning

The *planning mindset*, is supposedly concerned with rationale and the implementation of change. The domain of functional management it considers: *a)* areas for organisational improvement, *b)* processes and practices that need to be introduced, *c)* types of information systems required, *d)* criteria for measurement and control, and *e)* the cost associated with achieving the change objectives.

The *visionary mindset* is said to focus on the needs of customers and all other stakeholders. Initiated, designed and driven by senior management, the vision cascades down through the management team via awareness and skills training, increased communications, widespread adoption of corporate symbols, and leadership changes in behaviour, style and language.

The *learning mindset* mobilises individual and group participation through improvement initiatives. A bottom-up process, it obtains commitment through involvement and self determination and considers: *a)* performance appraisal issues, *b)* reporting structures, *c)* individual and group training schemes, *d)* recognition awards, and *e)* investment in the working environment.

Smith et al (1993) examined quality culture transition in terms of these three mindsets and observed that most of the practices introduced by organisations tended to cluster within a single mindset. Consequently, this gave undue emphasis to certain phases of the process, resulting in polarised management thinking and falling participation in critical improvement activities. They subsequently identified the need for a fourth paradigm that would provide an agenda for switching between mindsets and facilitating regenerative momentum.

The resultant *transformation mindset* is concerned with redirecting focus to optimise change processes. A somewhat speculative agenda, it encourages management to regularly extricate itself from existing paradigms and assess current performance from the view-point of customers, employees, suppliers, competitors, and established industry standards.

Whilst the Mintzberg/Smith et al model is orientated towards quality culture, it nevertheless suggests a simple yet elegant framework that appears suitable for the wider development and implementation of organisational change strategy. In terms of the changing task roles of administrative support staff, it offers appropriate positioning for generic features such as process methodology and information systems, and for specific developmental needs associated with appraisal mechanisms, internal structures, and related training.

A brief overview:

The present chapter has endeavoured to relate contemporary organisations to their economic, social, political and technological environments. In the ensuing discussion of outer contextual issues it has sought to chart the direction and extent of macroeconomic influences and explore the implications for change in economic activity. Thus, initial enquiry focuses on socio-spatial features, discussing the regional influences surrounding the under or over representation of labour sectors and establishing the comparatively low mobility of administrative support staff. From such, the notion emerges that the regional intensification of similar industries and services might compound individual and group values that have developed within a localised environment. Nonetheless, it is apparent that structural change remains a crucial aspect of the UK economy, with organisational transformation becoming increasingly evident as companies respond to technological progress and changes in the pattern of demand.

In plotting the evolution of employment legislation two opposing perceptions are drawn. The first considers extant legislation in terms of its emancipating qualities insofar as it might perceivably insulate both employees and employers from some of the more insidious aspects of collectivism. On the other hand, such legislation is considered in the light of its progressively deteriorative effect on both trade union membership and the employment rights of the individual. Consequently, greater flexibility in the management of the employee may arguably have been gained at the cost of relaxing employment protection, maternity and other employment rights of the individual. Thus, the observation by Clifton and Tatton-Brown (1979) that constraints imposed by employment legislation are causing companies to exercise greater caution in their staff recruitment and selection processes and look more closely at the development of internal labour resources may have less relevance today than at the time of writing. Nevertheless, they put the issue in perspective when reporting that employment legislation has considerably less

effect on the organisation than the acquisition of experienced, hard-working staff (see TABLE 1.5).

Whilst this latter point may have various implications for training and development, Hennebach's (1989) observance of the progressive diversification of secretarial and administrative personnel into various paraprofessional activities, has particular relevance. Hennebach's report confirms a notion of professionalisation predicted more than half a century ago, setting the scene for subsequent discussion on the changing task roles of secretarial and administrative support staff.

In introducing inner contextual issues, organisational culture was reviewed at some length. It is arguably one of the key strategic paths through which organisational revitalisation can be achieved and can thus be a target of change as well as an instrument. Its relationship to organisational performance was discussed, disclosing the importance of an appropriate fit between organisational culture, industrial sector and business strategy. This lent support to Kotter and Heskett's (1992) proposition that there is no such thing as generically good cultural content and therefore different industries develop different cultural patterns to suit their business demands. Moreover, in acknowledging the inherent difficulties in implementing cultural or indeed any other form of change, a contemporary prescription was included as an apt vehicle for the proposed introduction of a new needs analysis methodology.

The next chapter continues with other inner contextual issues that are particularly relevant to administrative support staff. It is primarily concerned with job technology, office based subsets and with structures and secretarial task roles, subsequently setting the agenda for an examination of work organisation, job design and employee motivation.

OFFICE TECHNOLOGY AND TASK ROLES

The last three decades have produced radical developments in many areas of technology, precipitating change in every sector of commerce and industry. Although the sheer breadth of recent technological innovation precludes more than a passing reference to such developments, the rate of change that has generally occurred may be illustrated by the rapid progression made within the field of computer science.

Following the wider adoption of the transistor in the 1950's, the next decade saw the introduction of micro-chip circuitry, thereby heralding opportunities for hardware miniaturisation whilst sounding the death knell for large, thermoelectrical based, computer installations. Subsequent developments in magnetic storage devices resulted in the emergence of both hard and floppy disks as progressive alternatives to magnetic tape. This allowed data to be accessed non-serially, thereby facilitating interactive (non-batch) applications and dramatically improving systems flexibility.

Meanwhile, parallel advances in micro-processor technology enabled complex programs to operate in real time, whilst the replacement of ferrite-core components with dynamic random access memory resulted in prodigious savings in terms of cost, size and weight. Thus the micro-computer became a reality before the end of the 1970's.

The MS-DOS operating system quickly enabled the standardisation of data storage and software, leading to the introduction of comparatively inexpensive yet highly sophisticated software, with packages presenting such applications as word processing, spread-sheets, databases and graphics. "User friendly" subsequently became the catch-phrase that was to assist in wresting this new technology from computer specialists, and promote the development of windowing operating systems, object orientation and applications such as desk-top publishing. Enhancements such as these encouraged this and similar technology to be introduced into numerous work situations, especially into administrative functions where it appeared to offer considerable benefits in terms of office efficiency (The Royal Society of Arts Examination Board, 1980).

Thus the new wave of office automation started in the mid 1970's with the inception of the electronic typewriter, establishing the foundations for the progressive integration of office equipment, computing and telecommunications (Thompson, 1985). By 1981 the

main technological development in the majority of offices was the introduction of word processors (Henriques and Hoskins, 1984), but rapid advances in information technology and staffing implications resulting from improved office efficiency, prompted a number of studies into the corresponding impact on administrative jobs. A review of contemporary literature by Connell, Bird and Hall (1980) and initiated by the Equal Opportunities Commission, demonstrated a high degree of pessimism associated with the introduction of new office technology, but which nevertheless reflected the general view at that time:

Siemens (1978) predicted that 40% of all office jobs in Germany would be computerised by 1990, resulting in the loss of two million typing and secretarial jobs.

Barron and Curnow (1979) suggested a 10-15% increase in unemployment levels for secretaries, typists, clerks and managers over the following fifteen years.

Virgo (1980) believed that 40% of clerical and administrative jobs were potentially at risk during the 1980's, particularly in private sector services associated with insurance, building societies and banking.

Jenkins and Sherman (1979) suggested a 30% displacement in information processing jobs by 1980.

APEX (1979) predicted that one quarter million typing, secretarial and clerical jobs would be lost by 1983.

A salient aspect of this literature was the general assumption that a statistical correlation existed between the introduction of new office technology and the rate of administrative personnel displacement. This was illustrated by Connell et al (1980) who, in discussing the short term implications for administrative jobs in Britain, suggested that by 1985 a total of 64,000 administrators could be displaced through the introduction of word processors alone (ie., one person displaced per word processing unit). Perhaps to offer a measure of credibility to a somewhat dubious empirical relationship, they further postulated that, on the basis of only one person displaced per three word processing units, approximately 2% of all clerical personnel would be similarly affected by such change.

These assertions were subsequently disproved in a series of surveys undertaken during 1980 and 1984, where Daniels (1987) observed a valid relationship between information technology usage and the increased recruitment of secretarial, administrative, clerical, supervisory, technical, professional and management grades in office work. These surveys also established that, contrary to early predictions, technologically related

displacement occurred in only a minority of instances, this fact being confirmed in an independent report by Hillage, Meager and Rajan (1986).

The reasons for the proliferation of flawed early literature are seemingly born out of a profusion of premises and assumptions which may readily be criticised with the wisdom of hindsight. However, Webster (1990) provides a singularly incisive reason for such misconception in that the word-processed office tended to be characterised as a white collar replica of the assembly line, with the labour process bearing all the hallmarks of factory work from which office workers had hitherto been exempt. Collins (1979) epitomised this thinking when stating that "The introduction of word processing will mean that office work becomes increasingly like factory work - more controlled, more alienating, more tedious, less skilled and more intense". Perceivably, Taylorism was moving from the factory floor to the office.

Whilst early authoritative attitudes to new office technology are of passing interest, the fundamental reasons why its introduction did not result in significant labour displacement are germane to this study and are suggested in a report commissioned by the European Communities. Here, Chalude (1984) points to a general misapprehension regarding the nature of office technology, inasmuch as it is commonly attributed with processing abilities that are more a function of the operative than the machine. This is illustrated in several observations centred specifically around text manipulation activities and demonstrates various behavioural effects arising from the adoption of new office technology:

- i) Many managers are relatively ill-informed regarding the capabilities of the word processor. They consequently attribute it with extensive creative intelligence and expect their administrative support personnel to generate literate and well constructed documentation from relatively limited source material. Over time they unwittingly delegate a significant amount of their own managerial workload to their staff.
- ii) The quality of managerial authorship has generally deteriorated as poorly structured, partly illegible draft documentation replaced grammatically correct correct, well presented copy. Whereas a minimal number of corrective drafts may previously have been necessary, a whole series of major material reconfigurations is the typical product of authors overly dependent on word process editing.
- iii) The apparent ease with which documentation can be reproduced and

manipulated often results in the multi-copy syndrome, with all of the additional effort associated with unnecessary company-wide distribution practices.

To the above may be added current examples relating to the general usage of various data-base, text publishing, graphics, spread-sheet and functionally bespoke software packages. Once available, data enhancement processes typically become routine for many literary activities, adding not only to the quality of text presentation, but also to the job scope and expertise of administrative support personnel.

On this theme, an optimistic, yet equally extravagant contrast to the early literature, speculated on the effect that the technical revolution would have on associated task roles, and concluded that "..... office technology is likely to free secretaries from the more routine elements of their job allowing attention to be given to more interesting and discretionary tasks; it is clear that the traditional role of the secretary is likely to be obsolete by the end of the decade" (Bevan, 1984). Interestingly, later events have not supported these assertions, and many of the problems that organisations perceived technology would solution apparently remain unresolved.

Thurloway (1992 p.1) endorses this view and expresses a belief that the nature of secretarial work is essentially the same as in earlier years, whilst Braun and Senker (1982) made a similar point some ten years before when they observed very little difference in function between the traditional office and the automated version of the 1980's. Paradoxically, however, the wider introduction of information technology is progressively influencing office employment patterns and internal structures, presenting organisations with various commercial and functional incentives to expand the operational scope of secretarial and administrative support staff.

Profile of administrative support personnel:

Official statistics treat secretaries, clerks and other keyboard workers homogeneously whilst many studies accept organisational definitions that are based on subjective rather than objective criteria (Thurloway, 1992 p.2). In the interests of clarity and simplicity, this study supposes that sufficient common elements of activity exist between all administrative support personnel to justify the official homogeneous appellation.

However, this is not meant to imply that significant differences may not exist between the duties of individual staff, nor in the task role expectations of the organisations in

which they work. Thus, whilst some secretarial and clerical staff may be concerned solely with text manipulation, data entry and established office procedures, others may be involved in paraprofessional activities spanning a range of specialist disciplines or dealing with work broadly perceived as a managerial function (Hennebach, 1989).

Recent official statistics confirm that administrative support occupations make up the highest proportion of female jobs, employing 27.2% of the total women employed within Great Britain (see TABLE 2.1: Eurostat Labour Force Survey, 1994). Coincidentally, this is one of the smallest employment sectors for males, representing only 7.8% of the total men employed. It is therefore highly probable that a typical office will be staffed mainly by women and, if a statistical relationship exists across all occupational sectors, approximately 44% of these could be employed on a part-time basis. This is illustrated in the following table which demonstrates a notable consistency over time in full to part-time female employment ratios:

TABLE 2.1:

Employment Statistics - Great Britain:

(000's)

	84	86	88	90	91	94
Population of Great Britain	54,084	54,230	54,662	54,813	56,207	56,753
Total Economically Active	26,248	26,649	27,461	27,941	27,903	28,398
% Economically Active	48.5	49.1	50.2	51.0	49.6	50.0
Total in Employment	23,282	23,829	25,085	25,962	25,601	25,657
Total Women in Employment	9,630	9,895	10,478	11,009	11,034	11,504
% Women in Employment	41.4	41.5	41.8	42.4	43.1	44.8
Women Employed Full-Time	5,357	5,395	5,796	6,207	6,188	6,403
% Wmn Employed Full-Time	55.6	54.5	55.3	56.4	56.1	55.7
Women Employed Part-Time	4,273	4,500	4,682	4,802	4,846	5,101
% Wmn Employed Part-Time	44.4	45.5	44.7	43.6	43.9	44.3
Total Secretarial & Clerical	3,752	3,843	4,260	4,362	4,501	4,238
Women Secretarial & Clerical	2,858	3,014	3,248	3,401	3,496	3,126
Sec/Cler as % of Empld Wmn	29.7	30.5	31.0	30.9	31.7	27.2
Men Secretarial & Clerical	894	829	1,012	961	1,005	1,112
Sec/Cler as % of Empld Men	6.5	5.9	6.9	6.4	6.9	7.8

Extracted from HMSO Labour Force Surveys 1983 to 1991 and Eurostat Labour Force Survey 1994

It is equally likely that 75% of all clerical employees within the office will have an employment history limited to the same town or otherwise have no previous work experience (see TABLE 1.4).

In considering the levels of technology generally accessible to administrative support staff, the following extrapolation provides a credible assessment of the growth in contemporary equipment utilisation. However, due to the relatively limited size of the sample data, a degree of caution is advised regarding its interpretation in order to avoid some of the more gratuitous assumptions of earlier commentators. Nonetheless, the survey by Hepburn (1991) targeted a wide range of organisations and provides a comparative analysis of the types of keyboard equipment used by a cross-section sample of 519 secretaries at that time. Thus, by applying these findings across the national employment base for 1991 and extracting non-keyboard administrative staff from the clerical sector, the level of utilisation prevailing at that juncture is reasonably gauged.

Hence, a contemporary population census (Office of Population Censuses and Surveys, 1991) determined that 17.5% of all working women at that time were essentially clerical, whilst a further 8.7% were broadly secretarial. The resultant 26.2% equates closely to the combined figure for clerical and secretarial employment (see TABLE 2.1) and consequently this proportional relationship has been utilised in the following statistic. Thus, in 1991 approximately one million secretarial personnel throughout Great Britain had regular access to the following range of keyboard equipment:

TABLE 2.2:		
Office Technology Utilisation in 1991		
DEFINITION OF EQUIPMENT	NO. OF STAFF WITH ACCESS	
Electric Typewriter	17.1%	171,000
Electronic Typewriter	39.7%	397,000
Word Processor	72.3%	723,000
Personal Computer	44.3%	443,000
Based on the Clerical & Secretarial Sector: HMSO Labour Force Survey of Great Britain 1990-91		

These values exclude other administrative staff who were not directly involved with text management processes, but might nevertheless have had access to standard or bespoke computer equipment as functions of their job roles. Perhaps not surprisingly, although

85.2% of respondents to Hepburn's survey considered that information technology had resulted in secretarial time saving, there were still many secretaries who did not believe that it had. Certainly, there were many complaints of unnecessary drafting and re-drafting and reports of less discipline on the part of managers in producing and altering work which they believed could be more easily amended on a word processor. Whilst this supports previous assertions regarding prevalent management attitudes, a singularly interesting feature of the survey relates to the relative lack of interest in office technology as a topic.

Nonetheless, subsequent years have seen a dramatic increase in the spread of information technology, not only on the business front but also in the domestic forum where internet access is predicted to have a compound annual growth rate (CAGR) of 37.6% per annum and sales of personal computers a CAGR of 30.9% (see TABLE 2.3). Correspondingly, business orientated equipment such as servers and network computers have projected CAGRs of 55.5% and 116.3% respectively, whilst worldwide software sales are set to increment by 91.1% per annum to the new millennium.

TABLE 2.3: Source: International Data Corporation, 1997

Worldwide Trend in Internet and Intranet Service

Product/Service	1996 (\$M)	2000 (\$M)	1996/2000 CAGR(%)
Internet Access	3,149	11,300	37.6
Personal Computers	5,511	16,200	30.9
Network Computers	706	15,440	116.3
Servers	2,247	13,150	55.5
Network Equipment	3,500	10,300	31.0
Software	916	12,221	91.1
Services	2,477	13,770	53.6
Total	18,506	92,381	49.5

Thus, it is now commonplace for individuals and organisations alike to communicate via e-mail, whilst a great many people from all socioeconomic groups and occupational

categories access the Internet on a regular basis, applying the computer to many applications outside of simple text editing. Moreover, the technology is becoming progressively more powerful as it adapts to consumer demand for increasingly sophisticated software. Despite this, there is little evidence of the computer obviating the need for clerical personnel or dehumanising office practices.

Perhaps, as Webster (1990) suggests, there has been a preoccupation with the Taylorisation of the office which has subsequently "been shown to be largely fictitious and based on political rhetoric rather than empirical investigation". Thus, information technology is now generally perceived as an integral constituent of many clerical functions and consequently, in considering individual and organisational issues, administrative support staff are attaching appropriate emphasis to other equally important aspects of their positions, including supervisory responsibilities, training and development, vocational qualifications, degrees of autonomy and career aspirations, etc. (Hepburn, 1991).

It would therefore seem that new office technology does not represent a threat to the social structure of the office, nor does it appear to impose a system of working that is markedly unacceptable to associated employees. Furthermore, the fervent prophesies of mass displacement and ever wider divisions of labour have been disproved by subsequent employment statistics having seemingly been based on misconceptions regarding the nature of information technology and its application. Conversely, the introduction of such has tended to centralise organisational communications and in doing so, has assisted in the refining of internal reporting structures and exposed administrative support staff to a number of techniques and practices suggesting new career dimensions.

Cox (1986) encapsulates this alternative perspective in stating that "Although system builders often speak of office automation systems, such systems hardly even address office productivity at all, let alone automate it. Office automation systems are primarily tools to be used by the individuals in an office to enhance their personal productivity, using the computer as a solitary tool. We've barely begun to tap the potential of computers as coordination tools, or tools for helping individuals cooperate towards a common goal".

Information technology in practice:

Much of the literature concerning new office technology concentrates on text management processes, often ignoring applications associated with centralised purchasing

systems, stock control, credit control, sales invoicing, personnel administration, product distribution, materials requisitioning, management accounting, etc., and various creative utilities linked to design and development. However, in being exposed to the broad spectrum of functional transactions interlining such disciplines, administrative support staff are adding to their portfolios of experience and becoming increasingly confident in undertaking associated paraprofessional activities. Therefore, in neglecting broader aspects of technological implementation, commentators are failing to recognise individual and collective opportunities for role enhancement.

Although 50% of all secretaries are content to either remain in their current roles or else progress in this activity, a further 36% wish to move into other occupations (Hepburn, 1991 p.17). Obviously, their reasons are many and varied, but it is suggested that, in expanding their operational roles through the medium of information technology, they are gaining a greater appreciation of their own capabilities and contributions in relation to those of professional colleagues. Thus, prior to the centralisation of information processes, administrative support staff may possibly have formed fragmented views of departmental communications flows which might have inhibited their conceptualisation of total functions and the activities of others working within them. However, on-line access to organisational databases and direct linking with customers, suppliers and specialist departments, have exposed arterial inefficiencies, creating opportunities to short-circuit levels of reporting structure and assume greater decision-making responsibilities.

Long (1987 p.151) attributes this phenomenon to a 'second phase' of development, involving the "outright elimination of many intermediary (routine information handling) functions, and has been brought about by the proliferation of personal computers and the increasing ability to interlink them with one another and with databases". Over time, the ultimate integration of data processing, telecommunications and office machines will, it is claimed, result in the 'multifunctional work station' equipped with such features as electronic messaging, voice annotation, audiographics, and facilities for the direct capture of incoming correspondence. Interestingly, Long sees this, supported by the coalescence of portable computer terminals, leading to the elimination of clerical involvement in (eg.) sales functions and a subsequent reduction in sales and similar personnel.

Such views are reminiscent of the Tayloristic fervour associated with the introduction of the word processor and again, perhaps fails to consider various behavioural effects arising from previous technological adoption. Certainly, the implementation of new office

technology will challenge organisational structures as it encourages decentralisation, recentralisation and alternative methods of working, but this is more likely to influence managerial span of control than clerical staffing levels.

In making a similar point, Hennebach (1989 p.44) claims that new information technology has resulted in the absorption of many middle management jobs involved with the processing of information flows. This in turn has contributed to a general flattening of organisational pyramids: the new middle managers are effectively the secretaries and administrators who are now controlling crucial aspects of business communication. Consequently, such responsibilities are calling for a marked increase in the need for initiative and discretion by administrative support staff, and a corresponding necessity for organisations to provide appropriate commercial, vocational and interpersonal skills training (Bevan, 1984 pp.5-7).

Office technology and educational standards:

According to the National Economic Development Office (1983) the introduction of information technology results in far more new skills gained than old skills made superfluous. An obvious illustration is provided in the growing demand for proficiency on the keyboard, which is fast becoming the conventional method for entering and retrieving data, as well as facilitating access to various activity related software packages. Consequently, notwithstanding skills that are operationally specific, organisations frequently identify keyboard ability as a principle competency in the selection of administrative support staff. Increasingly, organisations are seeking computer related cognition as a prerequisite for administrative employment; typically expressed in terms of keyboard speed, software familiarity and local network management experience (Thompson, 1989 p.38).

The Equal Opportunities Commission (1980) similarly views associated skills in information management and analysis as crucial to the development of these staff, consequently advocating training in:

- i) information monitoring and scanning (specifying key variables)
- ii) information filtering and selection (identifying what is relevant)
- iii) information editing and summarising
- iv) information presentation
- v) information storage and retrieval

Thus, they posit, language skills will subsequently become more important in filtering and synthesising information as non-simultaneous electronic messaging replaces a significant proportion of telephone and face-to-face conversations.

Information presentation will increasingly demand competencies relating to the interpretation and expression of graphical and statistical data, thereby aiding principals in decision-making processes.

A greater appreciation of the techniques and applicability of storage and retrieval methods will assist administrative support staff in specifying data characteristics, organising file directories and generating reports.

The wider application of spread-sheets will necessitate the understanding of underlying mathematical operations in order to develop practical formulae and verify end results. Programming proficiency will enable staff to make a vital contribution to the definition, design and implementation of electronic office systems.

Whilst there will inevitably be a degree of controversy regarding the precise blend of education, training and experience, it is clear that computer related competencies will be increasingly valued by organisations and attention should therefore be paid to their development. However, Braun and Senker (1982) caution against overly exaggerating their importance in relation to other abilities, suggesting that such skills are not by any means the only ones required, nor necessarily the most important. Thus, this concentration on information technology is not intended to imply a greater degree of significance within the task roles of administrative support staff, but rather to clarify or dispel prevalent notions concerning its adoption.

Possibly the most fundamental lesson to be learned from the literature and aptly expressed by Webster (1990), is the need to be cautious about reading dramatic transformations of working patterns into future rounds of office automation. However, to suppose that new office technology is not eliminating many of the more routine aspects of clerical activity is clearly a nonsense and therefore its contribution to changing task roles must continue to be recognised and its potential exploited. This, according to Long (1987 p.152), should counterbalance procedural reductions in repetitive and prosaic transactions by supporting the creation of progressively higher skilled clerical jobs.

Perhaps as Braun and Senker (1982) suggest, ".....the only certainties are:

- i) that technological change both requires and causes change in skills
- ii) that there are shortages of some skills, but the composition of these is changing

iii) that a better educated workforce is better able to cope with change."

Education and training are therefore essential contemporary issues given that "The demands of office automation in the next few years are likely to force companies to think as much about the design and organisation of jobs as about the choice and installation of the technology itself" (Bevan, 1984 p.20).

A brief overview:

It is evident that early 80's literature perceived new office technology as a facilitator of scientific management, predicted to bring "Taylorism" into the office. Moreover, not only was its introduction expected to herald dehumanising working practices, it was also correlated with clerical personnel displacement, thus set to precipitate prodigious job losses. However, such views have subsequently been shown to be substantially erroneous, with authors such as Hennebach (1989) and Webster (1990) claiming that the technology is not only freeing secretaries from routine activities, it is potentially enabling them to absorb tasks that were previously the domain of functional specialists.

Hennebach (1989 p.64) also goes on to suggest that in controlling crucial aspects of business communications, the Secretary is effectively becoming the new middle manager, correspondingly siting the need for training programmes to be "closely tied to secretaries' chances for advancement". Nonetheless, Thurloway (1992) considers that the nature of secretarial work remains essentially unchanged, yet Hennebach concludes that the technology is assisting Secretaries to gain access to the new opportunities that organisational restructuring is presenting. This has clear implications for training, as does Thompson's (1989) observation that organisations are increasingly demanding computer related cognition from their administrative support staff.

The next chapter concludes the overview of relevant inner contextual issues, examining aspects of work organisation, task design and motivation, with particular emphasis on the operational roles of administrative support staff. It studies such approaches as job enlargement, job enrichment and task attributes, and considers the likely behavioural consequences of each. Moreover, it focuses on structural and individual approaches to change and discusses relevance to the training cycle as an introduction to performance appraisal evolution and the needs analysis process.

WORK ORGANISATION AND MOTIVATION

In endeavouring to focus on aspects relevant to the secretarial and clerical employment sector, previous discussion has introduced various factors that perceivably influence organisations in general and the task roles of secretarial and administrative support staff in particular. Using the Pettigrew, Steers, Katz and Kahn framework illustrated in DIAGRAM 1.2 it has sought to provide an overview of salient outer contextual issues, exploring such features as employment shift between major sectors, intra-sectoral movement of clerical personnel, macroeconomic activity, technological innovation, occupational professionalisation and current employment legislation.

Inner contextual discussion commenced with an examination of organisational culture, considering its potential influence on corporate purpose and performance and broaching the premise that sectoral and regional cultures might merge with organisational based values in the make-up of the corporate personality. Subsequent discussion was concerned with office technology and task roles, examining the former's effect on the latter in terms of the office environment, labour displacement, skill demands and potential opportunity.

It is thus posited that whilst outer contextual forces such as competition, resource scarcity, regulatory mechanisms and other aforementioned issues shape organisational strategy, it is the effective management of inner contextual issues that is perhaps central to reducing performance gaps in expectations of revenues, costs, productivity, quality, labour turnover, absenteeism and other measures of organisational effectiveness. However, in addressing performance variances, resultant change may be incremental or radical, but is nonetheless often preceded by a process of need recognition, situational diagnosis and strategic planning (see Steers, 1977) and normally followed by varying degrees of modification to work organisation, job design and the hierarchical structure of the organisation.

This chapter will discuss these issues and endeavour to position them within the inner contextual framework, prior to exploring some of the more notable theories of motivation theory and therein establish behavioural foundations for the subsequent examination of performance appraisal methodology.

Performance gaps and work organisation:

Whilst Steers (1977) posits that performance variances may be addressed by alterations to work organisation, job design and the hierarchical structure of the organisation, Glueck (1980) suggests a number of ways that changes to the fabric of an organisation may be effectively orchestrated, specifically:

- i) Effecting changes in job design that permit more specialisation or enrichment

Job enrichment techniques have been successfully adopted by Saab Scania, Bell Telecom and others, with such companies reporting increases in job satisfaction and reductions in absenteeism and labour turnover (Davis, 1985). Whilst there are perhaps many areas of organisational activity that may benefit from this approach, Davis nonetheless cautions that the job content may often be insufficient to create a really satisfying task and any positive influences could be at the expense of the improved productivity that specialisation was designed to achieve. However, this is arguably less likely to apply to administrative support staff as they become increasingly involved in the paraprofessional relationships prophesied by Carr-Saunders and Wilson (1944), reaffirmed by Haug (1973 pp.196-197), and more recently observed by Hennebach (1989 pp.43-46).

- ii) Clarifying job descriptions

A survey by Hepburn (1991 p.15) established that approximately one third of secretaries within a national sample had not been issued with job descriptions, nor had they participated in any formal appraisal or assessment process. Hepburn suggests that this may be because the perception of their role appears to be overly subjective and therefore difficult to measure, but nevertheless confirms the importance of such processes.

Moreover, in a discussion on 'position definitions', Henderson (1984) gives credence to Hepburn's subjectivity argument by suggesting that:

- a) the more complex the requirements and activities, the more difficult it is to describe them in clear unambiguous terms; and
- b) the more complex the activities, the more difficult it is to identify relevant activities that are observable and measurable in quantitative terms, although qualitative assessments are certainly applicable.

However, Henderson propounds that the position definition is a fundamental component in the appraisal system and is the first step in gaining acceptable performance from the employee.

iii) Altering the basis of departmentalisation within the organisation

The methodology may range from the segmentation of a departmental function by product or service, to the forging of a unique series of cross-functional relationships within a totally reformed organisational structure. Due to the nonspecific nature of many secretarial and clerical activities, administrative support personnel are arguably a sector of staff that are demonstrably proficient at adjusting to such change, and this, coupled with their increasing exposure to paraprofessional activities (see CHAPTER EIGHT, TABLE 8.6), may present extended opportunities for the role development suggested by Hennebach (1989) and others.

iv) Increasing or decreasing the span of control and therefore the height of the hierarchy

This is visibly happening on many fronts and is perhaps significantly aided by advances in new office technology. Appelbaum (1985) suggests as much when revealing a general pattern within the United States insurance industry, in which many routine elements of clerical jobs are being largely eliminated and replaced by activities formerly undertaken by lower level 'professionals'. He propounds that this delegation of higher level activities is made possible by two simultaneous developments:

firstly, the reduction of routine keyboarding; and

secondly, the application of new technology to routinise and assist in the production of complex estimates and proposals.

Furthermore, the new technology is assisting in eliminating the jobs of many middle managers who once processed the flow of information to head office, and Hennebach (1989, p.44) suggests that the new middle manager is now the secretary who controls the technology. The apparent eagerness with which administrative support personnel are responding to related promotional opportunities within many sectors of commerce and industry is possibly explained by their seemingly high level of aspiration. Silverstone and Towler (1982); Hepburn (1991) and Lovell (1998 - see CHAPTER NINE) give a measure of empirical support to this assertion, reporting that in 1970, 24% of all secretaries interviewed considered secretarial work a stepping stone to higher occupational activities, subsequently increasing to 33% by 1981; to 35.8% by 1991; and to 44% by 1997.

v) Modifying the organisation manual and its description of policies and procedures

- vi) Clarifying co-ordination mechanisms such as policies and procedures
- vii) Changing the power structure, perhaps moving from a centralised to a decentralised authority

It is evident that recent improvements in business communications have assisted the layering of organisational structures and facilitated decentralisation by furnishing senior management with the ability to monitor local decision-making in real time whilst presenting the illusion of functional autonomy (Marginson et al, 1988). Moreover, it has arguably enabled organisations to cost-effectively centralise human and material resources, perceivably offering significant benefits where customer satisfaction and fast response times are of the essence. Consequently, centralisation is a direction that many companies have taken in restructuring their operations and Kathawala and Lingaraj (1990) point to the flexibility and responsiveness that this might bring. Thus, with progressive advances in technological innovation, Kathawala and Lingaraj suggest that it is becoming less necessary for producers, suppliers and customers to be located close together, particularly since information and communications can be transmitted and processed over considerable distances in a fraction of the time previously taken. Similarly, they posit that the technology has an equally important role in maintaining the communication links necessary to support the decentralised structures emerging from companies diversifying into new products and industries.

However, earlier authors such as Deardon (1967) advise against the decentralisation of logistic systems and data processing activities in order to ensure that head offices retain a measure of collective control over subsidiary operations. Thus, throughout the 1960's and 1970's businesses tended to decentralise both their functional and supplier-buyer activities whilst centralising their administrative services (Dugger, 1985). More recently though, La Belle and Nyce (1987) have presented the notion that organisations will need to recentralise many previously decentralised functions if they are to acquire the level of control necessary for them to sustain competitiveness in the 1990's. As a consequence, they posit that strategic functions such as planning and control, marketplace intelligence and technology research should be recentralised, as should infrastructure functions associated with risk management, policy and standards management.

Thus, administrative services may correspondingly be subject to more rigorous co-ordinating effort in providing top management with the information essential for accurate decision-making. By implication, whatever route is taken regarding recentralisation or decentralisation, administrative support functions would seem crucial to the

effective control of business communications (Hennebach, 1989) and may therefore appear primary targets for job enlargement and job enrichment processes in an effort to encourage the flexible specialisation of administrative labour resources.

Job design within planned organisational change:

Cooper (1974) suggests the wisdom of selecting for enlargement functions that have a real impact on organisational effectiveness in their contribution to key operational goals. Previous discussion lends much support to the assertion that the task roles of administrative support staff fit readily within this category inasmuch as:

- i) Whilst the roles of management are being redefined so their ranks are perceptively thinning, necessitating a measure of executive type support from administrative personnel in order to sustain appropriate levels of managerial control.
- ii) Effective communications are progressively important in determining an organisation's ability to remain responsive, competitive and efficient. Administrative support staff are often essential to the channelling, processing, interpretation, collation and distribution of critical information.
- iii) Computerisation is commonly central to increasing productivity in financial administration, marketing, personnel, logistics, stock control and many other areas of modern business; and administrative support staff generally control this new technology.
- iv) The involvement of administrative personnel in paraprofessional activities could provide organisations with a significantly enhanced labour resource offering novel options in terms of succession planning.

Povall et al (1991) suggest, however, that established career paths which offer opportunities for secretaries to use and develop their range of skills and experiences are rare. They consequently assisted in initiating a secretarial development programme within British Airways to ensure that career opportunities both inside and outside of the administrative stream are substantially improved and not left to the vagaries of chance.

The project was instigated in order to address personnel issues that are of significance to British Airways, W H Smith, Reed Personnel Services and possibly many other

organisations; specifically:

1. Concern with losing experienced staff with valuable organisational knowledge due to:
 - a) insufficient operational challenges
 - b) boredom arising from routinised working practices
 - c) difficulties associated with working for too many managers
 - d) lack of development or career prospects
 - e) lack of training, particularly related to personal development
 - f) difficulties in moving away from secretarial based activities
2. Lack of candidates considered sufficiently skilled and experienced to fill vacancies for PA's and executive secretaries reporting to senior management
3. Awareness that organisations are not fully utilising the abilities of secretaries who are known to be capable of accepting a wider range of responsibilities
4. Concern regarding the lack of a structured career path for secretaries
5. The perceived need to link secretaries into organisational strategies aimed at generally improving staff recruitment and retention

The methodology commenced with an assessment workshop, thereby presenting individuals with an opportunity to review their current role; share experiences and ideas with others; gain a greater understanding of organisational changes that would influence their future role; identify their personal development and training requirements; whilst simultaneously assisting the HR department to establish the dimensions of appropriate training support. This was subsequently followed by an investigation into the mechanics of how such training needs could best be met, whether by internal or external agencies. A new grading structure was then implemented, together with new job titles and salary scales, and these were rated in accordance with proficiency levels based on an NVQ framework. Finally, recruitment and selection procedures were modified to accommodate the new grading structure.

In recounting the above process, the author does not intend to attribute it with any sense of uniqueness, other than acknowledge that it represents a contemporary record of this type of approach. Indeed, a significant number of companies such as Elida Gibbs,

SmithKline Beecham, and Mercedes-Benz, are believed to have implemented similar programmes, but at the time of writing they do not appear to have documented their methodology.

However, the British Airways project does illustrate a situation where employees are participating to a large degree in the job change process. Nevertheless, Herzberg (1968) cautions that employee involvement in job development contaminates the process by introducing hygiene related human relations factors and argues that it is the content of the job that will produce subsequent motivation and not the involvement or challenges inherent in establishing the change. Implicit in this assertion are concerns regarding the relevancy and practicality of employee suggestions, and the difficulties associated with measuring job enrichment dimensions due to Hawthorne effects and the possible emergence of self-fulfilling prophecies that overly support employee ideas (Maitland, 1974). Thus, Herzberg advocates the tactical 'tell/sell' approach over the organic 'consult/participate' methodology, yet both approaches appear to have advantages and disadvantages in equal measure. Perhaps as Maitland suggests, it is by necessity a matter of compromise, yet it remains essential that ideas arising from such processes should be practical, relevant, acceptable, measurable, and fundamentally job enhancing.

Unfortunately, difficulties seem to exist in distinguishing additional but similar tasks (job enlargement) from essentially different tasks (job enrichment) and subsequently applying an overall measure of job content. In illustrating such difficulties, Kelly (1982) uses the notion of work roles in considering a horizontal series of interdependent roles through which a flow of work is processed. Attached to this horizontal organisation of roles are several offshoots of vertically organised roles which necessitate occasional interventions in the major flow such as supervisory and quality control activities. Thus, a reorganisation of the horizontal series of roles may effectively result in job enlargement, but it is adjustments to the vertically organised (or ancillary) roles which typically present greater changes in terms of individual reward, status and job enrichment.

Kelly goes on to suggest that the two countries in which most extensive use has been made of vertical role integration are also those with the fastest growth rates of white collar work (ie., United States and United Kingdom). He purports that the significance of intrinsic motivation is much greater in vertical role integration than in other theories of job redesign such as work flow reorganisation or flexible working groups and suggests that the work attitudes of clerical and technical staff are more favourable to the ideas and realities of vertical role integration than blue collar employees. Thus, the current

explorations by British Airways et al, aimed at inducing intrinsic motivation, job satisfaction and task significance into administrative support roles, would seem a fundamental step in remedying many of the frustrations that adversely influence both individual and organisational effectiveness, thereby paving the way for vertical role integration and the potential eradication of critical performance gaps.

However, any resultant improvements in productivity may be difficult to assess and although method study may, to an extent, provide a mechanism for measuring office productivity, the degree of conceptual work in office tasks appears to present serious obstacles to accurate measurement. In addition, Kelly suggests that part of the expansion in office work might perhaps be linked to aspects of management status, particularly where higher levels of secretarial and administrative support may be perceived as indicative of superior ranking within the organisational hierarchy. Thus, a common belief in such notions may, according to Kelly, be contributing to a slower rate of productivity growth in this sector compared to that demonstrated within industrial work.

Moreover, whilst reasons for implementing job redesign may essentially focus on dimensions of productivity, job enrichment is being used by many employers (eg., British Airways) to stem turnover, curb absenteeism, ease recruitment problems, and enhance responsibilities (Povall et al, 1991). However, Hackman and Oldham (1976) postulate that it is perceived rather than actual job content that is motivating, and that jobs must be changed on each of the dimensions of autonomy, variety and task significance for improved motivation.

This is illustrated in a study by Locke, Sirota and Wolfson (1976), where increased opportunities for variety, decision-making, liaison, and control over labour allocation and work scheduling were introduced into the clerical section of a local government agency:

TABLE 3.1: Behavioural and attitudinal results in a study of vertical role integration		
	Locke, Sirota and Wolfson (1976)	
Measure	Experimental groups	Control groups
Productivity	+ 23%	+ 2%
Absenteeism	- 5%	+ 7%
Turnover	- 6%	+ 20%
Complaints	0	4
Attitudes	No change	No change
N	46	49

Locke et al suggested that the improvements in productivity were attributable to the improved utilisation of staff, elimination of unnecessary procedures, better performance feedback and inter-individual competition, yet Kelly (1982, p.160) questions why attitudes remained unchanged, whilst so called indices of satisfaction (eg., absenteeism, turnover, and complaints) would indicate the contrary. He therefore posits that attitudes did improve in the early stages in anticipation of better pay and new responsibilities, but when these were not forthcoming, disappointment set in prompting a return to previous attitudes.

Thus, horizontal and vertical role integration may produce worthwhile improvements in productivity, but the key to both increased job performance and lasting attitudinal improvement would appear to lie in improving employee motivation. It is therefore tentatively suggested by Kelly that job redesign may not necessarily be the cause of performance improvements, but may in fact facilitate progress by removing obstacles in their path.

Davis(1985) similarly advances that positive influences may be conditional and not essentially linked to the redesigned task when he cautions against potential productivity losses resulting from inadequate or ill conceived job content. Such thinking implies that performance and attitudinal improvements may well arise from the very process of perpetrating job redesign and might consequently be distinct from the theoretical benefits suggested by the new design *in situ*. This phenomena is well documented by Trist (1963) and others, implying synonymity with the so-called 'Hawthorne effect' and also the possible materialisation of self-fulfilling prophesies from various individuals participating in the redesign exercise.

Thus, in discussing the relationship of individual motivation to work organisation, that which emerges lends support to Schein's notion that human behaviour is extremely complex, and it may therefore be somewhat idealistic to attempt to apply a unique theory across the spectrum of organisational activity. Nevertheless, employee motivation has been the subject of extensive research in recent years, much of it concerned with the determination of factors effecting the individual's performance at work. Consequently a number of theories have evolved around notions of peoples needs and motivation and the apparent satisfaction or dissatisfaction that they derive from their employment. Hence, motivation is arguably germane to the needs analysis process insofar as it drives performance and perceivably exerts significant change forces on the individual (see CHAPTER FIVE and DIAGRAM 5.2).

Notable theories of employee motivation:

The scientific management school exemplified by Taylor (1911), emphasised the importance of economic factors in determining peoples occupational motivation. Individuals ostensibly fulfilled their economic needs by working for monetary reward, and apparently submitted to job-rating, standardisation processes and perceptively dehumanising activities in return for a variety of financial incentives. Whilst 'Taylorism' has subsequently been criticised on the grounds that it treats people like machines, the widespread use of bonus schemes within present-day industry supports the idea that money can nevertheless be a significant motivator in inducing individuals to work harder or tolerate adverse working conditions.

However, there are arguably a great many people who allege that they would not wish to be exposed to such environments regardless of the level of remuneration. This suggests that financial reward is merely one of a number of factors influencing employee behaviour and that the implicit assumption that economic gain is a primary motivator may be somewhat conditional. Maslow (1943) gives credibility to this assertion in his 'Theory of Human Motivation', where his hierarchy of needs purports that money is a lower level need commensurate with safety and security, and subsequently becomes comparatively unimportant as higher needs associated with self-esteem and self-fulfilment are satisfied.

Other needs would therefore appear to assume progressive importance once basic physiological and safety needs have been met, and the Hawthorne Studies undertaken at the Western Electrical Plant, Chicago during the late 1920's (see Roethlisberger and Dixon, 1939) illustrates this proposition. In this case, research directed at establishing relationships between the working environment and employee performance suggests that social factors such as group cohesion, open communication and freedom in task organisation, has greater motivational significance than environmental improvements or financial incentives.

Ensuing behavioural students have frequently criticised these studies on the grounds of the 'Hawthorne effect', propounding that the results were influenced by the employees' knowledge of their participation in the experiments. However, more recent and equally classic experimentation by Trist et al (1963) comprising the Tavistock Mining Studies, provides further supporting evidence of the impact of groups on individual attitudes, behaviour and performance. Thus, despite possibly flawed methodology, the Hawthorne study nevertheless did much to reveal the dimensions of informal organisational

behaviour and establish the importance of social factors on employee motivation.

Equally, Maslow's notion of hierarchical ascendancy - ie., that once lower level needs are satisfied their effect on behaviour diminishes and they are supplanted by others of a higher order, has similarly incited both corroborative hypothesis and controversy. This is illustrated in the contrasting approaches suggested by Herzberg, Alderfer and Schein, with each recognising differing degrees of complexity regarding the aspirations of the individual and the nature of motivation.

The Two Factor Theory of Motivation propounded by Herzberg (1966) distinguishes between lower and higher level needs in relation to a series of job events. Herzberg argues that, whilst each event may elicit feelings of both dissatisfaction or satisfaction, extrinsic aspects associated with company policy, administration, supervision, salary, inter-departmental relationships, and working conditions have a strong tendency to evoke feelings of dissatisfaction. Alternatively, intrinsic factors associated with achievement, recognition, task involvement, responsibility, and job progression essentially produce feelings of satisfaction.

Thus, factors which more often lead to dissatisfaction are primarily hygiene related, as in Maslow's lower order needs, whilst those which are frequently a source of satisfaction may be considered motivators and likened to Maslow's higher level needs. Similarly, Herzberg maintains that the realisation of these higher level motivators ultimately leads to some measure of self sustaining satisfaction, whereas the fulfilment of lower order needs will not in itself be a source of satisfaction. However, King (1970), Bailey (1983) and others, have criticised Herzberg's hypotheses on several counts:

- i)* The study sample appeared to be excessively biased towards technical and professional occupations rather than clerical or manual activities, perhaps introducing group partiality in favour of the former.
- ii)* The interviewing technique may have influenced participants to inappropriately attribute achievement and recognition to personal efforts rather than other external agents, again possibly prejudicing the findings.
- iii)* In certain circumstances, hygiene factors could represent very effective sources of motivation and satisfaction to individuals who may not be remotely interested in achieving recognition or growth within the workplace.
- iv)* Resultant theories are broadly expressed in terms of satisfaction outcomes rather than behaviourally determined criteria such as performance,

absenteeism, turnover, etc.

Bailey cautions, however, that it may be imprudent to assume that a direct correlation exists between satisfaction outcomes and generally accepted indices of satisfaction.

A less rigid need theory advanced by Alderfer (1972) proposes that individuals have three basic sets of needs:

1. Existence - the need for goods and benefits associated with material existence;
2. Relatedness - the need for maintaining interpersonal relationships with family, friends, co-workers, subordinates and supervisors;
3. Growth - the need for personal development, through creativity and/or the achievement of productive potential.

The essential distinction between Alderfer's and Maslow's theories relates to their perceptions of need progression. Whilst Maslow suggests that satisfied physiological demands are replaced by progressively higher level needs, Alderfer considers that frustration and regression interact within the cycle to provide a reversionary aspect. Consequently, where an individual's endeavours to fulfil growth needs results in frustration, so lower level needs become increasingly appreciated and subsequently assume positions of greater prominence.

Aldag and Brief (1979) point to a limited empirical endorsement of this hypothesis, yet suggest that available data supports the propriety of this thinking. Therefore, although Maslow's model appears to present a coherent paradigm for charting an individual's ascendancy through the various physiological levels towards self actualisation, his theory nevertheless asserts that man's needs are progressive and self sustaining. Thus, whilst this rationale might assume validity during intervals of individual and organisational equilibrium, Alderfer's proposition that such features are in fact reversionary may be generally more appropriate, especially throughout periods of radical corporate change when frustration, insecurity or other regressive factors may lead the individual to an enhanced appreciation of lower level needs.

Schein (1965) similarly suggests that hierarchical precedence changes from one situation to another, whilst advocating that aspects of satisfaction or dissatisfaction differ from role to role. Herzberg provides an elegant model along similar lines, but argues that feelings of satisfaction and dissatisfaction have much to do with intrinsic and extrinsic elements

of *every* job event; and furthermore, lends support to Maslow's conjecture that the satisfaction derived from higher level motivators is self sustaining and not generally reversionary.

Prevalent within these ideas is the notion that man strives to supplant lower level physiological needs with higher order needs and, whilst such needs may be progressive or reversionary, they nevertheless influence behaviour and are consequently important determinants of an individual's motivation both inside and outside of the organisation. In the author's view this is perhaps presumptuous and pays little heed to the observations of Goldthorpe, Lockwood, Bechhofer and Platt (1969) who posit that many industrial workers view their jobs solely as sources of comparatively high income and not as sources of intrinsic satisfaction. This does not suggest that these individuals may not seek higher level needs, but considers that such attainments may be sought within their domestic situation, their circle of acquaintances, or the community at large and not essentially at their place of work.

Clearly though, many employees *do* seek the approbation of their colleagues and supervisors and look to their jobs to provide a structure for personal development and self fulfilment. Thus, during periods of organisational stability, the theories of Maslow and Herzberg would appear relevant to such a group, offering credible models for the exploration of human motivation and the potential enhancement of individual performance. In conditions of non equilibrium, however, the previously discussed ideas of Alderfer seem more applicable as employees direct their concerns towards material aspects of their existence in response to feelings of threat, anxiety or uncertainty.

For those personnel motivated primarily by extrinsic reward, pay and job security remain essential satisfiers. Therefore, attempts to induce or improve intrinsic satisfaction through work organisation may be viewed with a degree of cynicism if changes in working practices are not reflected in the reward mechanism, despite the fact that such changes may present transparent opportunities for personal advancement. Therefore such idiosyncrasies may indicate that the key to unlocking the paradoxes of employee motivation lies firmly in the necessity for organisations to undertake effective needs analysis, not only at the organisation and task levels, but essentially at the individual level in the manner proposed by McGehee and Thayer (1961), Katz and Kahn (1978) and others.

Perhaps as Bailey (1983 p.41) suggests, "motivation is a complex process in which there are a number of motivational factors which can vary and interact with both the individual

and his situation". Schein (1965 p.41) reinforces this point in his collective observations regarding the nature of man's motivation within the organisation, specifically:-

- i) Man's motives are variable and complex, with hierarchical precedence changing from one situation to another.
- ii) Man is influenced by the organisation and acquires new motives as a result of interaction between his needs and his work experiences.
- iii) Man's motives may differ from role to role, each one providing different facets of satisfaction or dissatisfaction.
- iv) Man's productivity depends not only on his motivation, but also upon the nature of his work, his relationship with others and his personality, capability and experience.
- iv) Man will respond to dissimilar management styles at different times, depending on his motives, tasks and associates.

This concept of motivation questions the notion that all persons are disposed to satisfy higher level needs and suggests that individuals differ widely in what they wish to achieve from their jobs. Thus, Taylor's view of money as a primary motivator may hold, but only inasmuch as it may be considered an instrument for gaining other desired outcomes, or a yardstick for gauging personal achievement (see Aldag and Brief, 1979 p.12). Goldthorpe et al illustrate the former in their study of three Luton manufacturing plants, and Lawler and Porter (1963) discuss the latter in their examination of managerial attitudes and performance.

Goldthorpe et al (1969) reported that many skilled and semi-skilled workers adopt an instrumental attitude to work, viewing their job merely as a means to an end and not as a source of satisfaction. Whilst they may not necessarily indicate a liking for their work or otherwise identify with the enterprise, they are nevertheless attracted to work with high extrinsic rewards. Thus, generous pay and job security are primary demands, thereby enabling them to force up their standards of consumption. Goldthorpe et al subsequently argue that the origins of these attitudes emanate from external factors allied to the individual's personal history, family circumstances and social class or aspirations, rather than from internal sources linked to the structure or organisation of work.

Expectations and outcomes:

Lawler and Porter (1963) found that the perceived salary differential between a manager and others at a similar level, was a better predictor of the manager's satisfaction with his remuneration than the absolute value of payment. This suggests that a feeling of reward equitableness may be more important to the individual than his comparatively high salary (measured in terms of the national labour market) which might nevertheless be lower than that of others within his direct peer group. According to Lawler and Porter, such comparisons appear to be particularly significant to those of a higher educational standard and may be determined on an inter-company basis as an indicator of value outcomes, or contrasted with external salary levels as a measure of social accomplishment.

Although Goldthorpe et al, and Lawler and Porter might perceivably have addressed opposite ends of the occupational spectrum, a notion of fairness permeates through both studies, perhaps implying that the individual's perception of equity and fairness may be a fundamental factor in influencing his motivation and behaviour.

Bailey (1983 p.45) makes this point in suggesting that "*.....the discrepancy between what a person expects and what he gets in terms of reward or valued outcome tends to modify his motivation and behaviour towards that outcome. Thus, if in comparison to the rewards obtained by other people or in comparison to the rewards an individual expects, an individual feels that the actual reward he obtains is unfair or inequitable he will behave in a way to reduce this discrepancy*". This, and similar observations, are germane to the evolution of 'expectancy theory', which enlarges earlier ideas of motivation and introduces an important concept into the arenas of work organisation and performance appraisal.

From such analysis, the needs and expectations of the employee may be contrasted with those of the organisation, and a methodology established to provide both the organisation and the individual with a route to the gratification of these needs. Whilst this suggests a somewhat complex analytical exercise, it may prove in practice to be comparatively uninvolved, particularly where expectations may be readily linked to mutually desired outcomes within a framework of perceived equitableness. Thus, theories of motivation assume less importance than the verification of the strength of the individual's orientation towards achieving desired outcomes. As explained by Vroom (1964), this valence and the expectation of achieving higher pay, recognition, or whatever need the individual has, is as important a behavioural factor as actually attaining the outcome. Hence, its influence on performance levels has been reasonably established, thereby advancing its

relevance to the needs analysis process.

The previously discussed studies of Alderfer, Schein, Goldthorpe and others suggest that people work in order to gain outcomes which they believe will fulfil their existence, relatedness and growth needs, irrespective of whether or not such attributions of relatedness and growth occur inside or outside of the organisation. However, Lawler, Porter and Bailey posit that if these outcomes appear inequitable to the individual, or are at variance with those anticipated, then the morale of the individual will be affected, influencing that person's attitude and behaviour.

Moreover, the notion 'that the expectancy of achieving a desired outcome may perhaps be as important a behavioural factor as the outcome itself' has been explored by Vroom (1964) who demonstrates a coherent relationship between motivation, performance and outcome.

His notable theory suggests that: *motivation (M) is a function of the expectancy (E) of attaining a certain outcome in performing a certain task, multiplied by the value (V) of the outcome for the individual* and may be expressed as:

$$M \propto E \times V$$

Vroom further defines motivation, or the force to perform, as:

$$F = \sum (E_{ij} V_j)$$

where F = the force to perform; E = the perceived probability (expectancy) that the i th amount of effort will lead to the achievement of performance level j ; and V_j = the valence of each performance level, representing the strength of the individual's positive or negative affective orientation towards the outcome.

Vroom suggests that a performance level acquires valence if it is perceived as leading to the attainment of other outcomes such as pay and recognition, and describes the valence of a task as:

$$V_j = \sum (I_{jk} V_k)$$

where I = the instrumentality of performance level j for outcome k ; and V = the valence, or perceived desirability, of outcome k .

In offering empirical support to the above hypotheses, Steers and Porter (1983) encapsulate the basic assumptions underpinning expectancy theory, and posit that all models, regardless of their particular formulation, infer the following principles:

- i) Man evaluates available courses of action in a rational manner;

- ii) Individuals will act in relation to perceptions of effort leading to outcomes and the perceived value of the outcomes;
- iii) By training and illustration, employees can be shown that effort will lead to performance;
- iv) Managers should take steps to strengthen the perceived relationship between performance and outcomes;
- v) The organisation should recruit individuals who would find a high instrumentality between organisational rewards and personal goals.

Therefore, Steers and Porter state that explicit within such theories is the need for organisations to specify the relationship between task performance and rewards or outcomes, implying a procedural link between goal-setting, performance appraisal and reward. Nevertheless, in bringing about performance improvements, strategies directed at changing individuals have a tendency to emphasise employee skills, attitudes and motivation and take many forms including communication enhancement, social processes and training events linked to vocational skills, interpersonal development, decision-making and motivation (Glueck, 1980).

Such training is arguably one of the more important components within the individual change cycle, yet its effectiveness may be dramatically curtailed by the perceptions and attitudes of local management. Therefore, as in other areas of organisational activity, the training process itself may be subject to expectancy influences, and this is illustrated by Fairbairns (1991) who suggests strong connectivity between training which is important (*I*) to a person's job; identified training needs (*T*) which may be strategically salient to the organisation's development; and the degree to which training is likely to be rewarded (*R*) or otherwise encouraged by line management.

Thus, $I + T + R$ represents the point at which operational and strategic priorities for learning converge to provide the most acceptable position for training and development;

Similarly, $T + R + \text{low } I$ suggests a strategic training requirement which has low task relevance and may be restricted by personnel category or location, yet nevertheless receives local management endorsement;

Hence, $I + T + \text{low } R$ implies that the training requirement may be job related and strategically important to the enterprise as a whole, yet it is unlikely to be supported locally within the organisation. Therefore, due to the low expectation of

reward or recognition, employees may be discouraged from participating, or perhaps anticipate a lack of practical reinforcement at the workplace having undergone the training process.

Latham (1988) similarly acknowledges the link between organisational support, training effectiveness and strategic change, and suggests that "...organisational support for training should be operationally defined as the extent to which training objectives are linked to organisational objectives, the extent to which the training objectives change as soon as there is a change in the organisation's strategic emphasis, and the extent to which training progress is viewed together with the progress made in achieving the business plan".

Thus, the importance of linking training objectives to organisational goals is well articulated and, more recently, O'Donnel and Garavan (1997) have reiterated its centrality to the integration of HRD into the wider organisational strategic process.

Hence, Fairbairns and Latham are not alone in stressing the importance of managing the fit between employee motivation, individual development and organisational change.

The point has been amply documented and the early study by McGehee and Thayer (1961) exemplifies this thinking in their analytical integration of three levels of training needs, embodying analyses undertaken at the organisation, the job and the individual level. Others such as Katz and Kahn (1978), Vinton, Clark and Seybolt (1983), and Leat and Lovell (1997) also advocate this approach, as does Bramley (1989), who propounds that the training function should be at the centre of strategic management and thus supported by employee and management involvement as a precondition for improving employee motivation, job performance and organisational effectiveness.

Personal and organisational sources of resistance to change:

However, notwithstanding the reinforcement that training may accord strategic management, any discernible change to work organisation, job design, role structure, performance measurement, or indeed any other job-related function, is likely to encounter varying degrees of resistance from both personal and organisational sources. The fact that such resistance appears to be an inherent aspect of organisational change therefore poses questions regarding the propriety of tactical (*tell and sell*) consultations over organic (*discuss and involve*) approaches to dealing with change; the latter being possibly more susceptible to contamination from the hygiene related human relations factors cautioned by Herzberg.

Steers (1977), however, suggests a number of sources of individual resistance which appear to have relevance to many, if not all, areas of organisational change. Primarily he cites individual perception as a major source of resistance, positing that misunderstanding of purpose, mechanics or consequences of change might precipitate the greatest resistance, as indeed might the failure of participants to see the need for change.

Other individual sources typically evolve from the fear and uncertainty that frequently arise from impending change, particularly the employee's fear of the unknown and fear of losing status, power, job security, power, etc. Allied to these concerns are the potential threats to existing friendships and social relationships, particularly where such associations are long-standing and formed within an environment of structural rigidity.

Sources of change may also appear orientated towards protecting vested interest in the status quo, where perhaps habit, allied to a lack of identification or involvement with change, might induce strong opposition. Thus, impending change might perceptibly question group norms and role prescriptions and introduce conflicting personal and organisational objectives.

However, resistance to change is not solely a characteristic of the individual, and therefore some of the obstructions might emanate from organisational sources, particularly where reward systems exist which may reinforce the status quo and/or where there is a clear trail of sunk costs in past decisions and actions.

From a collective stance, there is also the possibility of interdepartmental rivalry or conflict, which may lead to a general unwillingness of staff to co-operate. There might also exist a widespread fear that change will upset the current balance of power between groups and departments and/or evoke other concerns due to the prevailing organisational climate.

A further and highly significant source of resistance identified by Steers relates to the physical management of change. Such resistance might have its roots in a past history of unsuccessful attempts at change and a record of related consequences; a poor choice of methodology utilised in introducing change; or a general lack of confidence in management.

Thus, the significance of managing change has been evident for many years and, as early as 1947, Lewin was proposing a model for individual change, subsequently initiating much related discussion by authors such as Schein (1961), Seashore and Bowers (1970), Lawler (1977) and more recently Levasseur (1992).

Lewin proposes that before change can occur, the individual must feel a need for it, which may emanate from a perceived deficiency, actual dissatisfaction or a desire for improvement. He suggests that it is then necessary to alter the forces acting on the individual in order to disturb his stable equilibrium sufficiently to motivate him and prepare him for change. This is the first step in the process of change, and is aimed at *unfreezing* the present level of behaviour and initially unlocking the existing social system, and may be accomplished in a number of ways. These include cathartic counselling processes aimed at purging individuals of prejudicial attitudes (see Allport, 1945), increasing pressure to change, reducing threats or resistance, and establishing a series of training events as vehicles for facilitating wider organisational change (see Steers, Ungson and Mowday, 1985).

The second step is concerned with *movement* and embodies the action necessary to change the social system from its present level of behaviour to the new prescribed level. Such action might take the form of organisation structuring, team development, or various kinds of intervention in order to guide behavioural movement in the direction of desired change (Burke, 1987). Central to this process is the notion that individuals will learn new attitudes, either through emulating others (*identification*), or through a need to adapt and apply learned behaviours as a means of solving problems (*internalisation*).

The third step involves the process of *refreezing*, intended to make the new level of behaviour relatively secure against further change. This introduces deliberate steps to ensure the permanence of the new state of behaviour, and may comprise such forms as collaboration, competition, alternative management techniques, or new reward systems in an endeavour to positively reinforce the desired behavioural change. In so doing, it strives to integrate new thinking into the individual's personality.

Clearly, there are glaring similarities between Lewin's model and that of Smith, Whittle, Tranfield and Foster (1993) discussed in CHAPTER ONE. However, whilst Lewin is more directly concerned with behavioural adjustment and individual performance, Smith et al contrive to achieve the same result through planning, communication, training and learned commitment from the participant. Whilst both approaches appear equally valid, fundamental to Lewin's three-step procedure for change is his proposition that behaviour is a function of an individual's personality, considered primarily in terms of motivation or needs and the prevailing situation or environment. Thus, the environment is represented as a field of forces that affect the person, whose subsequent behaviour can be predicted if the intensity and valence of the imposed forces can be determined (Lewin, 1948).

This encapsulates one of the central themes of this chapter, suggesting support for the hypothesis that the anticipation or actuality of change exercises a primary influence over individual motivation and is therefore inextricably linked to performance (see especially reports of the Hawthorne experiments by Roethlisberger and Dixon, 1939). Thus, in managing change one manages many aspects of performance, yet it is apparent that change is ever-present, either in a continuous and sometimes insidious form, or as a radical process arising from a perceived gap in individual or organisational expectations.

Moreover, it is suggested in the work of Lewin and others that training is an important component within the change process and hence an empirical relationship between change, individual needs, training and performance may be evident. It therefore seems reasonable to suppose that performance appraisal systems could provide essential information for identifying training needs, yet Herbert and Doverspike (1990) consider that much of the existing literature does not prescribe how the appraisal data may be utilised once it has been collected. They also express concerns regarding a perceived inattention to the various problems that might arise when existing appraisal systems provide input for the needs analysis process. It is observations such as these that have prompted the following enquiry into the evolution of contemporary performance appraisal methodology as a precursor to assessing its responsiveness to individual needs and determining its effectiveness as an instrument for addressing performance gaps within the organisational structure.

PERFORMANCE APPRAISAL EVOLUTION

Previous chapters have endeavoured to describe the more salient forces for change that might be acting on organisations and individuals to change, locating such influences within an organisational model (DIAGRAM 1.2) that facilitates the analytical approach suggested by Pettigrew, Ferlie and McKee (1992). Where appropriate, the discussion has focused on the task roles of administrative support staff, thereby featuring an employment sector that is generally undergoing considerable transition in response to significant advances in job technology and the progressive flattening of organisational structures. This in turn has perhaps lent support to the proposition that education is an essential aspect of the change process, whilst concurrently identifying specific training topics which may be pivotal to the future development of clerical staff.

From an examination of the literature it would appear beneficial and comparatively straightforward for every organisation to introduce a bespoke performance appraisal programme and use the data as the basis for a comprehensive needs analysis methodology for addressing training, development and motivational issues. However, opinion remains divided regarding the purpose of performance appraisals and there is sufficient evidence to suggest that many employers use the process primarily as a mechanism for determining salary levels. Consequently, Cascio (1982), Hyde and Smith (1982) and others, have commented on the conflict that arises when appraisal programmes are used for both salary determination and personnel development, whilst McAfee (1982) has narrated the biases and irregularities that occur when such linking is evident.

Cascio posits that a performance appraisal system that is used for salary administration purposes may not be appropriate for developmental purposes since the former requires interpersonal information and the latter intrapersonal information. Thus, whilst salary administration requires data concerning differences between the performance of *different* individuals, a developmental system seeks data relating to variances within a *particular* individual's performance. Typically, only one or the other type of information is obtained, and a system that attempts to accomplish both purposes may be extraordinarily complex and costly to develop. Furthermore, Cascio, and Hyde and Smith caution against a conflict between the supervisor's role as 'judge' and 'helper' which they suggest is inherent in systems requiring both types of information from the same appraisal.

Hyde and Smith also propose that appraisal information is likely to be more accurate when the purpose of the appraisal is employee development. This perhaps indicates that the supervisor experiences a measure of discomfort in undertaking judgemental appraisals, introducing one of the principal human barriers to effective performance appraisal. Such rater concerns are well documented in many standard texts and commonly focus on the following dimensions:

Acceptance

Where the rater perceives that an adverse rating may damage mutual acceptance, his need for social affiliation may override partiality.

Security

A disagreeable yet accurate rating might adversely affect the performance of the individual, thereby reflecting on the group for which the rater is responsible.

Affiliation

Unacceptable behaviours may be subconsciously minimised where there are rater/ratee similarities, and negatively emphasised where dissimilar characteristics exist. Such affiliations may be based on gender, race, age, personality, education, status, organisational experience, etc., but whilst there is some empirical data illustrating related effects, Landy and Farr (1983) point to a degree of preoccupation with laboratory and simulation experiments and, in some cases, a lack of systematic research effort.

Limitations

The rater may be constrained due to a lack of education, organisational experience, or developed skills.

Self protection

A ratee's response to an unfavourable performance appraisal may range from indifference to violent reaction.

Thus, the potentially adverse impact of a poor performance rating may be overcome by measuring only those dimensions and qualities which will provide an acceptable or non-threatening result. Similarly, as most job functions are multi-dimensional, it may be comparatively easy to manipulate ratings by focusing on dimensions that are particularly favoured by the organisation. Whilst it is imprudent to suggest that divorcing developmental criteria from salary administration will totally eradicate such distortions, it is nevertheless appealing to suggest that a concentration on the former may significantly reduce manipulation by presenting the rater as a counsellor and cultivator, thereby

encouraging mutual honesty and acceptance.

Leat and Lovell (1997) therefore suggest that the principal purpose of the performance review activity should be to assess training and developmental needs and this would seem to be the collective view of the personnel professionals surveyed by Long (1986), yet paradoxically there appears to be less recorded interest in employee promotability and career planning. Perhaps this is indicative of the emergence of dual labour markets, resulting in an increasing emphasis on performance through horizontal job enlargement and reducing emphasis on career development for those individuals not on structured career paths. It is also evident that the appraisal process is increasingly utilised as a mechanism for reviewing past efforts and setting performance objectives, perhaps focusing attention on more judgemental aspects of the process:

TABLE 4.1:		
Performance Appraisal Revisited		Long P (1986)
Stated aims of the performance appraisal process	1977 %	1985 %
To assess training and developmental needs	96	97
To help improve current performance	92	97
To review past performance	91	98
To assess future potential/promotability	87	71
To assist career planning decisions	81	75
To set performance objectives	57	81
To assess salary increases or new salary levels	39	40
Others - eg., updating personnel records	-	4
	----	----
<i>N</i>	230	250

However, whilst objective setting and performance review can be considered germane to the appraisal process, it is strongly argued that related data may lose its integrity once a link with reward mechanisms is established by the rater and/or ratee. Early research by Rothe (1949) established that when pay and ratings were connected and a remuneration ceiling existed, raters gave higher grades to individuals who had yet to attain the pay ceiling. Similarly, Meyer, Kay and French (1965) observed that pay decisions, when related to appraisal ratings, became the overriding concern of many supervisors at

General Electric, inducing them to adjust ratings to produce predetermined levels of remuneration that appeared to have little in common with demonstrated work effort. Hence, the proposition that 'pay drives appraisal ratings' assumes validity, leading Henderson (1984) to suggest that compensation-related appraisals may be critically flawed and therefore of limited use for any other organisational purpose.

Definitive approaches to performance appraisal:

An early, yet classic dissertation by McGehee and Thayer (1961) suggests that performance appraisals should be instigated at three levels:

Firstly, performance appraisals should be conducted at the *organisational level* to determine where training initiatives should be directed, examining such features as organisational objectives, skills resources, indices of effectiveness, and the organisational climate. Thus, an examination of organisational goals and objectives will reveal functional targets that may require changes in performance standards, thereby necessitating training involvement.

The manpower plan may predict exposures resulting from promotions, retirements and turnover, and provide a demographic base for identifying training needs. This, and the maintenance of a knowledge and skills inventory, will establish operational training needs and may also be useful in predicting future skills requirements.

Efficiency indices such as labour costs, material costs, machine down-time, material wastage, product quality, equipment utilisation, distribution costs, late deliveries, customer complaints, etc., may be analysed in order to determine whether shortfalls in performance can be improved through the introduction of appropriate training.

Organisational climate indices such as labour turnover, absenteeism, short-term sickness, attitude surveys, grievances, and strikes, may similarly point to training needs as well as perhaps indicating the necessity to alter some aspects of the work situation. Additionally, line management opinion surveys may provide valuable input, particularly where the introduction of unfamiliar systems or new equipment imply special training requirements.

Katz and Kahn (1978) suggest that organisational effectiveness may be expressed in terms of the following constituents:

- i) Goal achievement, measured in relation to product or service quality, increased output and productivity improvements

- ii) Increased resourcefulness, through the achievement of greater market share, the establishment of new markets and increasing employee versatility
- iii) Customer satisfaction, resulting from the minimisation of complaints, the maximising of on-time deliveries and an enhanced organisational (or functional) image
- iv) Internal process improvements, arising from propitious group cohesion, high standards of supervision, minimal departmental boundaries and the establishment of realistic and tangible departmental objectives

However, they point out that attempts to change parts of organisations by changing individuals (as distinct from *developing* individuals) have a long history of theoretical inadequacy and practical failure. Thus, inasmuch as organisations are made up of individuals, it might appear conceptually appealing to change the organisation by changing the membership, yet perhaps this may not be achievable in practice because:

- a) An organisation has objectives, priorities and policies
- b) It has a structure and an accepted way of doing things
- c) The changed individuals may not be able to change situational factors

Bramley (1989) adds support to this caution in suggesting that "..... if the intention is to change the effectiveness of the individual or part of the organisation, a different postulate should be considered that combines learning with organisational change rather than the more traditional approach of *merely* training the individual".

Secondly, performance appraisals should be accomplished at the *job level*, this involving the collection of data about a particular job or group of jobs and examining:

- i) Standards required
- ii) Knowledge, skills and attitudes required to achieve standards

Thus, 'job descriptions' will provide outlines of jobs and list typical duties and responsibilities. These may, however, change over time in response to the determination of new organisational priorities. Conversely, jobs may be significantly modified and enhanced by occupants working towards personal career goals, perhaps resulting in vast differences between job descriptions and actual jobs.

'Job specifications' will endeavour to provide detailed lists of all identifiable tasks, and will possibly include standards by which satisfactory standards will be judged.

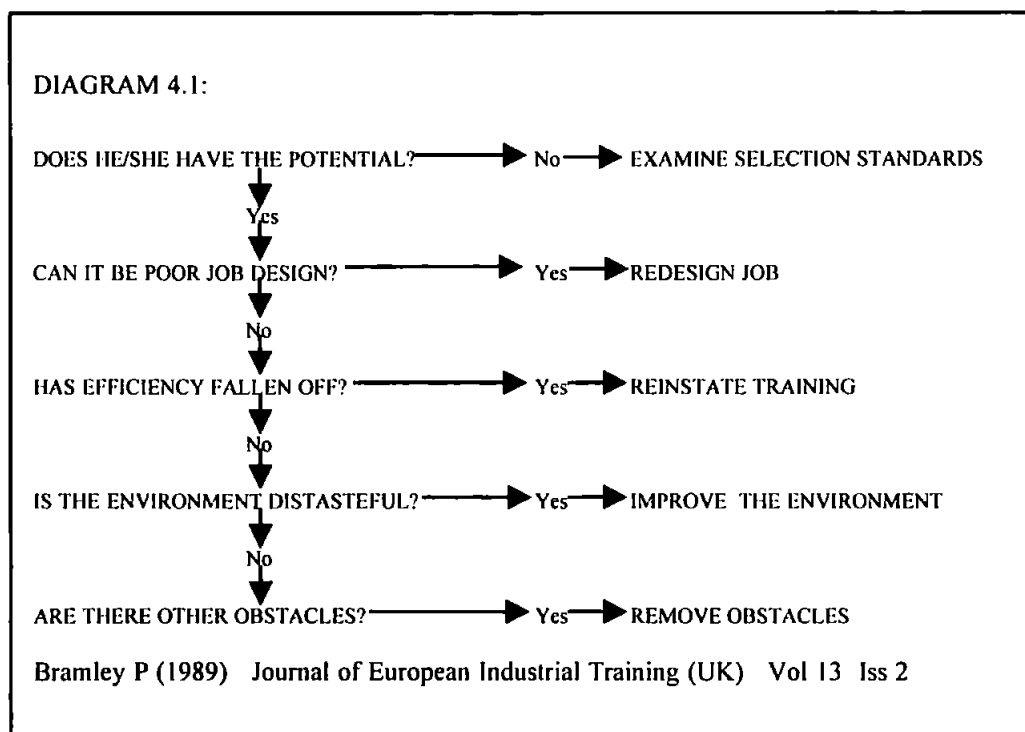
'Performance standards' may be established and subsequently phrased as objectives for the job, thereby annotating the targets or standards by which such objectives will be judged.

Job observations or work sampling may be incorporated within the process in order to facilitate the detailed analysis of specific job activities. McGehee and Thayer also advocate asking the job holder and supervisor about particular aspects of the job.

Thirdly, performance appraisals should be implemented at the *person level*, focusing on how well a particular employee fulfils the various tasks necessary for successful performance. Thus, individual training needs can be identified through:

- i) Performance appraisal which should identify weaknesses and areas for improvement as well as strengths
- ii) Interviews and questionnaires
- iii) Devised situations, such as role playing, case studies and business games
- iv) Observation and work sampling, or the testing of skills and knowledge required in the job

In related discussion, Bramley (1989) suggests a decision-tree approach to remedying skill deficiencies in individual performance, specifically:



Thus, the integration of the three levels of analysis proposed by McGehee and Thayer forms a conceptually appealing performance appraisal methodology which has evoked

much comment since its inception. More recently Vinton, Clark and Seybolt (1983) have further endorsed this study observing that "..... training needs analyses often concentrate on the person analysis level and neglect the links with organisational goals which are necessary to ensure that training is effective in advancing the cause of the company". They consequently advocate procedures that will deter undue concentration on a single level of analysis, and suggest the propriety of a broader process wherein the differences uncovered between actual performance and performance objectives should provide the data for the determination of training needs. Furthermore, they specifically recommend the use of Behaviourally Anchored Rating Scales (BARS) in order to "overcome weaknesses" in the supervisory assessment of such needs.

Judgemental measures of work performance:

The seminal work on BARS was undertaken by Smith and Kendall (1963) with the objective of replacing simple numerical and adjectival anchors with descriptions of actual job behaviours that reflect varying levels of task effectiveness. These behavioural anchors are worded in a "could be expected to" format, and set within scaling procedures borrowed from psychophysics to improve psychometric properties. Thus, the rater is expected to infer or predict the behaviour of the ratee based on the rater's past observations of the ratee's work performance, and thereby avoid some of the ambiguity and imprecision associated with other forms of judgemental measure.

Prominent amongst such judgemental expedients are perhaps the various derivatives of the Graphic Rating Scale introduced by Paterson (1923). Using numerical rating scales (eg., '1' through to '5'); or adjectival descriptors (eg., ranging from 'poor' to 'excellent'), the rater is allegedly able to undertake criterion-referenced measurement free of quantitative judgements, yet with the capability of increasing or relaxing the degree of discrimination by adjusting scale, changing increments, or modifying descriptors. However, Stevens (1946) appears to acknowledge the imperfections inherent within such processes when cautioning that "any particular scale, sensory or physical, may be objected to on the grounds of bias, low precision, restricted generality and other factors; but nevertheless posits that ".....the objector should remember that these are relative and practical matters and that no scale used by mortals is perfectly free of their taint".

Unfortunately, the Graphic Rating Scale may be more susceptible to bias than other performance appraisal methodologies in readily presenting the rater with the opportunity to opt for an average or central tendency value to avoid uncomfortable decisions. In

order to reduce such effects, psychometricians have subsequently advocated scales with even rather than odd intervals, thereby forcing a choice above or below the median value (*ie., indicating a measure of acceptable or unacceptable behaviour*). Thus, the foundations for the Forced Choice Scale are established, yet the very fact that a choice may need to be forced perhaps implies a fundamental weakness within such systems that may restrict their application for all but superficial behavioural analysis.

The notion of forced choice within appraisal mechanisms is not, however, limited to Graphic Rating Scales and is evident in various ranking systems associated with performance measurement; particularly where ratees and their job inputs are intimately known to their raters. Here, Simple or Straight Ranking systems may be adopted to rank individuals against their colleagues on a number of performance dimensions, and Henderson (1984) suggests that, where raters are able to suppress biases related to personality differences and focus on work behaviour, such systems can demonstrate a high degree of interrater reliability. However, Henderson cautions that rater bias and rater concern are common attributes of the appraisal process and thus the influence of the latter may encourage a tendency towards average ranking due to the fact that practically all employees consider their own performance to be average or above and will probably resent a lesser appellation. Therefore, in order to circumvent this phenomenon, a Forced-Distribution Ranking system has evolved, necessitating the rater to allocate a prescribed percentage of ratees to adjectival descriptors (*eg., ranging from unsatisfactory to superior*) positioned within a bell shaped curve approximating that of normal distribution. Hence, it may be required to allocate 5% of the ratees to each of the category extremes, 15% to each of the next categories, and 60% to the middling descriptors.

Other forced choice processes include Paired-Comparison Ranking, where each ratee is compared in turn with other colleagues to obtain rankings for a number of behavioural dimensions which ultimately form a profile of the individual's overall performance. A close derivative is the Alternation Ranking procedure, where high and low performers are selected alternately and placed towards the appropriate end of a ranking list which subsequently meets with the nomination of the average ratee.

Notwithstanding the effects of rater bias and rater concern, systems incorporating various forms of comparative ranking appear to exhibit a number of weaknesses which may detract from their integrity and contribution to the 'summary person analysis'. Defined by McGehee and Thayer (1961), the summary person analysis is intended to give a global

evaluation of individual performance and classify the employee as a successful versus unsuccessful performer. However, shortcomings inherent in comparative ranking processes may lead to flawed conclusions for various well documented reasons, principally:

- i) Ranking may be an inappropriate mechanism for comparing the members of one group with those from another
- ii) A comparatively low-ranked employee in a high performing group may be superior to a high-ranked employee in an average group
- iii) Comparative ranking positions may suggest vast differences in performance which in actuality may be minimal
- iv) The ranking technique may utilise an insufficient number of behavioural dimensions which can lead to the oversimplification and hence the inaccurate evaluation of performance within a complex activity

Additionally, ranking can stimulate intra-group hostility, resulting in lowered productivity and worker dissatisfaction. Perhaps the needs analysis process may therefore benefit from reduced emphasis on the perceptively judgemental summary person analysis and more concentration on the knowledge, skills and abilities comprising the 'diagnostic person analysis' in an endeavour to understand the reasons underlying individual behaviour. Thus, whilst the diagnostic person analysis, individual effort level and environmental factors are the components that make up the summary person analysis, a diagnostic approach may suggest a methodology less preoccupied with ranking low or high achievement and more interested in providing developmental support for the individual.

However, whichever evaluation process is adopted, focus inevitably returns to the fact that there is a rater and a ratee and that there may or may not be a hidden agenda between them. Psychometricians have consequently attempted to reduce ambiguity and the effects of bias by proposing the use of descriptive anchors to describe a comprehensive series of job behaviours. A classic application of this concept concerns the method of Summated Ratings where the rater is required to evaluate a ratee in terms that best describe his or her job behaviour when undertaking a number of prescribed activities, and record the outcomes on a judgement scale usually extending from 'strongly agree' to 'strongly disagree'. Positive (ie., desired) responses subsequently receive progressively higher scores as they approach the appropriate scale extreme and lower where the

converse is the case. An overall rating is obtained by summing the item scores to provide a measure of individual performance, whilst an analysis of specific behavioural dimensions contained within the instrument provide clues for further training and development.

Blood (1974) suggests that a derivative of the former in the shape of Behavioural Expectation Scales (BES) may prove useful for a number of purposes beyond performance appraisal, including the development of training programmes. In this application, the rater makes value judgements regarding the way that the ratee would be expected to act in a given number of job situations, which are then recorded on a scale typically ranging from 'unlikely to' to 'likely to'. Scoring is subsequently computed in a similar manner to that proposed for the summated ratings process, and the resultant data used for overall performance evaluation and the determination of training needs. Blood cautions, however, that when adopting this procedure as part of a training needs methodology, behavioural items that may have been deleted during the initial scaling process should be included in the final instrument. Herbert and Doverspike (1990) suggest that this may indicate that some important behavioural information relevant to the identification of training needs can be overlooked as a result of procedures which delete items from the final scale in order to enhance psychometric qualities. To this, the author adds a further caution regarding the analysis of that which, in effect, emanates from contextually shaped expectations, whilst nevertheless acknowledging that such an approach may prove effectual in helping to determine the training needs of administrative support staff.

Another notable variant in the form of Behavioural Observation Scales (BOS) is proposed by Latham and Wexley (1977), who claim that their instrument provides superior content validity, reliability and relevance to the job over other extant methodologies. They also suggest that BOS presents a simpler appraisal mechanism by *merely* requiring the rater to indicate the frequency that each behaviour is observed, thereby avoiding complex judgements about performance which may be an inherent aspect of other procedures. However, Murphy, Martin and Garcia (1982) do not support Latham et al's declaration that the response requirements are simple, since BOS would appear to measure not only the rater's observations of work behaviours but also the recall of these observations which may have been gathered on a periodic basis. They therefore suggest that the cognitive operations required of the rater by BOS, BARS and other judgemental formats would converge as the interval between the observation and rating process increases.

Moreover, Bernardin and Kane (1980) identify an allegedly serious weakness within the

BOS methodology, suggesting that there is a distinct possibility that a given frequency interval may indicate a significantly higher level of satisfactory performance in one behaviour than in another. Thus, in employing a fixed standard scale to observe frequencies of behaviour, the prospect of assigning an incorrect rating to a particular job behaviour is apparent. They therefore advocate a Performance Distribution Assessment technique (PDA), whereby the job under analysis is separated into its component functions and hierarchically ordered according to some notion of functional breadth. Each level within the hierarchy is subsequently assigned performance dimensions to provide observation scales that determine specific measures of outcome for each comparable behaviour. However, whilst it is accepted that the concept may suggest a reduction in rating disparity, the technique nevertheless appears overly dependent on the subjective categorisation of functional components. Additionally, being an observation based procedure it remains subject to the rater recall concerns expressed by Murphy et al.

A critique of Behaviourally Anchored Rating Scales:

The conception of BARS has resulted in much research and comment during recent years, establishing the technique as an important contributor to performance appraisal methodology. Thus, the following critique is included, not as a comprehensive synopsis of the literature, but as a selection of representative material introducing some of the salient observations that have emerged.

Borman and Vallon (1974) conclude that the BARS technique yields ratings that are superior in terms of reliability and rater confidence, but that simpler graphic scales result in reduced leniency and better discrimination between ratees. Leniency, however, would appear to be a prevailing phenomenon within any rating process, and Mohrman and Lawler (1983) propose an expectancy theory approach to understanding the motivational pressures that induce a rater to leniency. They suggest that a distinction exists between the rater's private and public opinion, and therefore the appraiser must be motivated to provide an accurate report, or at the very least, must not be motivated to give an inaccurate one. A recent endorsement of this theory is presented by Salvemini, Reilly and Smither (1993) who observe that rating congruence frequently improves when raters are offered financial incentives to produce accurate reports. Moreover, Bernardin and Beatty (1984) posit that leniency depends more on rater attitudes within a particular organisational context and less on a rater's ability to judge people; whilst Banks and Murphy (1985) lend support to this assertion when recommending that researchers keep

in mind the distinction between a rater's ability to accurately judge performance and a rater's willingness to accurately report judgements.

Thus, it is widely held that leniency is caused by motivational factors such as hidden agendas, avoidance of conflict, operational concerns, budgetary considerations and friendships, thereby resulting in intentional distortions at the time of formal evaluation. However, Hauenstein (1992) considers that motivational factors may be insufficient to fully explain this so-called 'rendering-bias' and that memories of negative performance incidents may decay over time to constitute a 'retrieval bias', thus contributing to additional leniency in performance judgements.

Keaveney and McGann (1975) employed the rating of students by their lecturers as a vehicle for comparing behaviourally anchored and graphic rating scales, concluding that BARS do not differ from graphic scales in terms of leniency but do appear to be less influenced by halo effect. Halo error may occur when a ratee is judged excellent in one quality, which in turn influences the rater to overly score other behaviours. This suggests that halo effect may reasonably be a function of rater competence, yet Murphy and Anhalt (1992) posit that such error is not a principal characteristic of the rater but rather is partly a characteristic of the ratee and the unique rating situation.

Burnaska and Hollmann (1974) undertook a comparison of three different rating instruments: the first comprising a behaviourally anchored rating scale; the second consisting of adjectival anchors applied to the same dimensions and definitions as the former; and the third a traditional graphic rating format. They suggest that leniency and composite halo are present in all three formats, but the BARS procedure results in reduced leniency, and affords increased discrimination when contrasting inter-ratee behaviour. Nevertheless, Burnaska and Hollmann caution that improvements in some aspects of rating using the BARS methodology may be accompanied by problems in other areas, and conclude that each format seems to have its own unique problems.

However, there exists a proliferation of research material contrasting various rating mechanisms and claiming differing measures of relevancy, practicality, accuracy, or equivalence in their application. A study by Borman and Dunnette (1975) compares behaviourally anchored rating formats with numerically anchored instruments displaying identical dimension labels, whilst similarly comparing graphic rating scales bearing trait labels to those utilising numerical anchors. They conclude that, although the standard BARS format appears psychometrically superior in terms of halo, leniency and reliability, format differences account for a trivial percentage (ie., 5%) of rating variance.

Although Hauenstein (1992) observes that the rendering-bias perspective (ie., that bias which is introduced during the marking of the evaluation form) appears deeply ingrained in performance appraisal research, other forms of bias may be as much a part of the instrument as it is of the rating process. Murphy and Constans (1987) suggest as much when they purport that behavioural anchors may affect the way that raters process information about ratees and may therefore be a source of rating bias. They posit that the inclusion of specific behaviours on a rating form may increase the likelihood that raters will recognise and focus on those behaviours, assuming them to be of especially significant importance. To illustrate this, they cite the example of an unexceptional performer who occasionally exhibits certain behaviours normally characteristic of a superior employee. If the rater's attention is directed by behavioural anchors towards those specific behaviours, the ratee's overall performance may be perceived as considerably better than it actually is. They subsequently suggest that behaviourally anchored scales are not necessarily more objective or less prone to bias than scales without behavioural anchors.

A later study by Piotrowski, Barnes-Farrell and Esrig (1989) replicated the study by Murphy and Constans, but extended this work by adding a retention interval of up to one week as an independent variable. The findings support the earlier study, concluding that BARS introduces a novel form of rating bias which may be found in both immediate and delayed rating conditions.

Therefore, it would appear from the literature that BARS are not totally free of the bias that can distort other performance appraisal procedures, nor is there unanimous opinion advocating their superiority over other rating mechanisms. However, there is insufficient evidence to indicate that they are in fact any worse, whilst the notion of Behavioural Expectation Scales (BES) might suggest an appealing methodology that could be beneficially applied in multi-dimensional task functions where direct observations of performance may be restricted. Thus, the author posits that the task roles of administrative support staff are multi-dimensional and becoming increasingly so, this perhaps detracting from the effectiveness of other behaviourally based techniques necessitating the direct observation of ratee performance, as in the case of Behaviour Observation Scales (BOS). Furthermore, if the BES procedure is adopted within a system that is totally divorced from salary administration or disciplinary processes, some of the rater concerns that typically lead to rating bias may diminish. However, there are other sources of bias which do not essentially emanate from rater concern, yet are capable of

influencing behaviourally based instruments and all other rating techniques.

Common sources of rater and ratee bias:

In a training trend survey undertaken by the Industrial Society (1993), 53% of the respondent secretaries (N = 396) perceived their male managers to be a barrier to their training and developmental opportunities. Although the statistic lacks any descriptive information, it nevertheless suggests a prevalent gender issue which may extend into performance appraisal practices. However, the literature contains very little evidence of overt gender discrimination, although gender-role stereotyping appears to be a common phenomenon which may be instrumental in introducing significant rating distortions into the appraisal process.

In a laboratory study, Goldberg (1986) randomly assigned the names of male and female authors to identical academic articles and presented them for appraisal by a mixed group of undergraduates. He reported that articles purporting to be from female authors were significantly down-rated, not only by male students but also by their female colleagues. This work was subsequently replicated and extended by Seymour and Voss (1988) who found the female to female bias reduced in strength compared with the previous study. Interestingly, however, there were no significant rating variances between men and women in female dominated fields such as nutritional science, education and textiles; whilst in male dominated fields such as computer science, astronomy and civil engineering there was a high degree of bias by women against women.

A further variant of this study was reported by Barnes-Farrell, L'Heureux-Barrett and Conway (1991) who examined the performance evaluation of male and female participants involved in two gender-typed occupations. The findings indicate that worker behaviours from male-typed task areas are appraised more accurately when presented in the context of a male-typed occupation, and behaviours from female-typed task areas are appraised more accurately when presented in the context of a female-typed occupation. Whilst this study constitutes a laboratory experiment, it nevertheless has implications regarding the accuracy of performance judgements that may be applied to administrative support staff entering into traditionally male-dominated task areas.

Moreover, Gupta, Beehr and Jenkins (1980) suggest that supervisors give higher ratings to subordinates of opposite gender, although male subordinates tend to receive more promotions from male supervisors. Furthermore, Wexley and Pulakos (1982) conclude

that female raters give more variable evaluations to male ratees than to female ratees, whereas male raters give equally variable ratings to male and female ratees. However in a similar study of cross-gender bias, Elmore and LaPointe (1975) investigated the rating of college lecturers by students and could find no significant evidence of cross-gender interaction within the performance appraisals. This is an important observation and germane to the Author's hypothesis that certain bias interactions are minimised when the purpose of the appraisals are investigative and developmental and perceptively disassociated from other organisational purposes. Perhaps it also questions the validity of some of the laboratory experimentation, seemingly orientating around student-lecturer interactions yet possibly assuming to simulate field conditions. However, what may reasonably be gleaned from the literature is perhaps encapsulated by Schein (1975) who posits that men and women seem to share common gender-role stereotypes about work-related variables and thus may be expected to evaluate male and female ratees with biases common to both rater genders.

Psychological similarity between rater and ratee may also lead to a distortion of judgement, and Frank and Hackman (1975) suggest that more favourable ratings may be given when such similarities are evident. Here there is perhaps a conspicuous link with the notion of high leader-member exchange (LMX), where supervisors develop high quality exchange relationships with certain subordinates and not others. A recent study by Duarte, Goodson and Klich (1993) demonstrates that poorly performing high LMX employees are given superior appraisal ratings, regardless of their actual performance, although the effect appears to be more pronounced in the assessment of general tasks and relationship orientated categories.

However, on the subject of racial bias, opinion appears contradictory regarding its effect on the appraisal process. Whilst earlier work by such authors as DeJung and Kaplan (1962) suggests that raters tend to give same-race ratees higher ratings, a comparatively recent study by Waldman and Avolio (1991) examined race effects on the performance evaluations of 21,547 individuals, and found no evidence of a same-race (rater-ratee) interaction effect. Furthermore, racial differences between rater and ratee appeared to account for only minor variances in performance evaluations once qualitative measures of ability, education and experience had been considered. Bearing in mind the topical and pervasive interest in racial issues this may appear somewhat surprising, yet a similar performance evaluation of 8,642 US army recruits by Pulakos, White, Oppler and Borman (1989) produced comparable results, both between race and between gender.

Age stereotyping has attracted some interest as a research subject, and Schwab and Heneman (1978) and Barnes (1980) conclude that rating variances may be evident in certain behavioural observations but not in others. Thus, young raters may rate young ratees higher than older ratees in interpersonal skills, whilst older raters may favour older ratees in areas of self-development. Shore and Bleicken (1991) support this proposition, suggesting that age bias may not apply exclusively to older individuals and may only be associated with selected performance dimensions. However, Landy and Farr (1983) point to a lack of data on occupational age stereotypes and consider this a fruitful area for further study.

A novel area of investigation which has recently appeared in the literature describes a modesty bias which may have cultural foundations. An investigation into the self-rating of performance by Taiwanese employees undertaken by Farh, Dobbins and Cheng (1991) observed that employees tend to rate their own job performances lower than their supervisors evaluate them. This modesty bias occurs relatively uniformly across gender, educational level and age group, and suggests a phenomenon contrary to that which may be expected in Western cultures. However, Yu and Murphy (1993) do not support a cultural relativity hypothesis observing, in a replicated study, that Chinese workers, like their Western counterparts, show leniency in self-ratings, perhaps indicating that broad cultural factors cannot readily explain the modesty bias reported by Farh et al.

Although rater memory and recall may perhaps have more congruence as sources of rater error than rater bias, the effects are nevertheless of significance to the appraisal mechanism where a connection between memory, recall and judgement processes is generally acknowledged. Implicit in this relationship is the notion that as memory for specific behaviours improves, so judgemental accuracy also improves, thereby suggesting a critical link with information encoding and recall. However, Hoffman, Mischel and Mazze (1981) posit that the purpose for which information is intended to be used affects the manner in which the information is organised. Thus, an observer who categorises a behavioural episode with the purpose of recalling the incident or empathising with the participant, may tend to encode the data primarily in terms of the participant's goals. Alternatively, an observer whose object is to form a personality impression of the participant or predict future behaviour, may tend to organise the episode in terms of the participant's traits. Woehr and Feldman (1993) extend this hypothesis in their study on information processing in performance appraisal judgements, concluding that the causal relationship between memory and judgement may be driven by contextual factors at the

time ratings are required as well as at the time information is encoded. This might assume particular relevance in the somewhat subjective analysis required by Behavioural Expectation Scales, as may other forms of non-conscious bias associated with prior belief, expectancy and hindsight.

A related study by Billman, Bornstein and Richards (1992) involved participants attributing covariance judgements to variable pairs of 'meaningful' ascriptions in order to assess the effect of prior belief on objective discrimination. For example, where prior belief is prevalent, body weight and daily calorific intake should be perceived as positive correlates; amount of rainfall and number of sunny days should be viewed as negative correlates; whilst number of movies attended and amount of red meat eaten should suggest zero correlation. Other ascriptions such as daily calcium intake and average resting pulse would typically be unconnected by any form of prior belief and usually invoke agnostic responses.

Cover stories suggesting scientific validity were established for all covariant pairs, and each data set subsequently judged in terms of which showed stronger correlation.

Despite the credibility of accompanying validations, participants rated data sets very highly correlated (either positively or negatively) when they had prior belief in an association, and very lowly correlated with exceptionally poor discrimination when their prior belief advised no relationship. Consequently, raters' evaluations are significantly shifted towards the extremes of the rating scale when there is prior belief, whilst the agnostic "don't know" condition appears to result in sensitive discrimination, low bias, and appropriate use of correlation scales.

Such studies imply the existence of inherent linking between context and encoding, encoding and recall, recall and discriminatory sensitivity, discrimination and prior belief, prior belief and expectancy, and expectancy and hindsight. The latter is suggested by Mazursky and Ofir (1990) who posit that, after the outcome of an event is known, there is a distortion in the recall of expectation indicative of hindsight bias (the observer knew 'it' would happen), whilst exposure to a surprising or unexpected event appears to bias recall judgement in the opposite direction. This is supported in the results of experimentation by Schkade and Kilbourne (1991) who conclude that hindsight bias is significantly greater when an outcome is inconsistent with expectation based essentially on the observed employee's performance history, current behaviour, or both. They therefore posit that expectation-outcome consistency would appear to be an important moderator of hindsight bias.

However, rater expectation may lead to yet another form of bias suggestive of a self-fulfilling prophecy which can contribute to substantial inequalities within the appraisal process. A particularly interesting example of this phenomenon was reported by Rosenthal and Jacobson (1968) who randomly selected one out of every five schoolchildren from an elementary class and suggested to their teacher that these exhibited superior intellectual attributes which would lead to high academic achievement. As the result of this prognosis, something happened within the teacher-pupil relationship which led the selected children to make clear gains over other pupils in terms of test performance and general standard of achievement.

A similar study narrated by Snyder (1982) describes how Albert King of Northern Illinois University, informed a welding instructor at a vocational training centre that five men in his training programme had unusually high aptitude. Although these individuals were selected at random and knew nothing of their superior appellation, they nevertheless learned essential trade skills in half the standard time, scored significantly higher than others in welding tests, were absent less frequently than other trainees, and were singled out by colleagues as preferred co-workers.

Thus, a link between rater expectancy and self-fulfilling prophecy is clearly demonstrated, suggesting a bias that may have critical implications for the performance appraisal process. On the one hand, selected subjects appear to benefit from a special relationship with their instructors, supervisors, or mentors, with high expectation perhaps resulting in enhanced developmental progression for the select few. On the other hand, a preoccupation with the notional abilities of the prescribed minority may detract from the fair evaluation and appropriate education of the majority. However, the extent of such bias may, in practice, be difficult to establish without extensive knowledge of rater prior belief and expectancy.

Other landmarks in performance appraisal technique:

Previous discussion has focused on some of the significant contributions to performance appraisal methodology and examined research material exploring the various biases that might distort associated rating processes. Equally, a number of authors have identified the fundamental importance of performance appraisal in training needs analysis and thus the following selection of contemporary literature is included to illustrate this relationship and plot the direction of associated research.

Wessman (1975) considers that individual training needs tend not to be adequately identified, thereby suggesting the imprecise nature of the needs analysis process. He therefore posits that individual diagnosis is an essential part of the procedure, along with the determination of performance standards and the assessment of environmental factors, and prescribes performance appraisals, surveys, critical incidents, assessment centres, psychological testing, skills inventories, and coaching as the appropriate diagnostic techniques. Wessman cautions, however, that performance appraisal data may be biased by trait judgements, and that developmental objectives may be secondary to administrative goals. He therefore concludes that, for the performance appraisal to be useful for needs analysis, it must contain objective dimensions of behaviour which allow for an objective evaluation of the discrepancy between present and desired levels of performance.

Kirkpatrick (1977) specifies four approaches to needs analysis, comprising performance appraisals, surveys, testing, and advisory committees. In advising the systematic utilisation of performance appraisal data, he suggests that the purpose of the performance appraisal process is to determine individual developmental needs, and consequently *all* that needs to be done is to analyse these needs and formulate training programmes from them.

However, in a later article, Kirkpatrick (1978) lists twelve techniques for determining training needs, but cites the utilisation of performance appraisal data as one of the best approaches to needs analysis. He again suggests that the rater is explicitly identifying training needs when conducting the appraisal, and should *simply* use this information to develop the training plan.

Cummings and Schwab (1978) have a markedly different view from that of other commentators. They describe a Management-by-Objectives (MBO) based performance assessment process, and suggest that developmental appraisal should be limited to the "proven high performer with upward potential". Thus, those individuals who do not fit this criterion undergo a form of evaluative monitoring, reliant on supervisory control and intervention to produce improvements in performance. However, aside from Cummings and Schwab's apparent disregard for training as a mechanism for developing inferior performers, Henderson (1984 p.85) points to an activity trap which can detract from MBO's effectiveness at integrating organisational and individual goals by inducing the following behaviours:

- i) An inclination by participants to overemphasise areas where goals are

monitored and deemphasise those where goals are not set, vague, or qualitative

- ii) The setting of goals that are relatively easy to achieve, thereby reflecting favourably on departments and key individuals
- iii) An unwillingness to become involved in goal-achievement areas where there is a greater risk and higher chances of failure
- iv) A tendency to inappropriately or inefficiently use resources in order to ensure that certain measured objectives are achieved
- v) A preoccupation with developing paperwork systems for the purposes of posturing and deflecting criticism

Nevertheless, various researchers have proffered support for the MBO process, and authors such as Schneier and Beatty (1979) have outlined an integrated approach using both MBO and behaviourally based appraisal methods. They suggest that effectiveness based measures achieved through the MBO process provide a global analysis of results, whilst behaviourally based indicators facilitate the identification of deficiencies at a micro behavioural level. Furthermore they posit that, in order for a performance appraisal technique to be beneficial to needs analysis, the process must not only ".....specify deficiencies in behavioural terms", but must also ".....include all relevant dimensions and identify environmental deterrents to desired performance levels".

A three phase approach to performance evaluation which includes this environmental dimension is proposed by Snell and Wexley (1985), who advocate results orientated appraisal, behavioural appraisal and skill appraisal as the collective mechanism for diagnosing individual performance. They further suggest that, in contrasting data from each appraisal method, individuals may be assessed in several additional performance dimensions. Thus, a comparison of skill data and behavioural data should determine the individual's effort level, whilst a comparison of results data and behavioural data should measure the effect of environmental factors on the individual's performance.

Observation in appraisal methodology:

Whichever approach is adopted, a proportionate level of observation would appear to be a prerequisite for informed and valid assessment. Thus, although mechanisms incorporating behavioural expectation techniques may be strongly dependent on notions of

anticipated behaviour, such procedures nevertheless require the rater to have prior knowledge of ratee proficiency and character gleaned over a reasonable period of time. Unfortunately, the amassment, collation and translation of this knowledge will almost certainly be distorted by contextual factors prevailing at the moment of observation and by a host of other non-conscious biases associated with encoding, recall, discriminatory sensitivity, prior belief, expectancy and hindsight. To this may be added other biases emanating from stereotyped perceptions of ratee gender, race, age, education and further influences suggested by rater/ratee trait similarities or prejudices. Should this imply an insufficient number of variables, rater concerns will similarly affect the process, but may perhaps introduce conscious distortions at the rating stage rather than within the observation and recall phases.

Thus, it would be imprudent to suggest that the faculty of observation may provide anything other than a subjective view of behavioural events, yet such perceptions form the foundations of all performance appraisal processes. However, it is posited by Cascio (1982), Hyde and Smith (1982) and others, that appraisal information may be more accurate and less influenced by bias and rater concerns when its purpose is solely developmental, with the rater seemingly adopting the role of counsellor and taking a specific interest in the potential of the individual. Additionally, the observation encoding faculty of the rater may be better focused, perhaps facilitating incisive and contextually balanced recall (see Hoffman et al, 1981; and Woehr and Feldman, 1993).

However, observations of work-related behaviour may be amassed over an extensive time frame and encoded in terms of ratee goals or traits. Whilst such observations may be organised through counselling, role play, skills testing, work sampling, etc., it is suggested that, in the case of administrative support staff, the multi-dimensional nature of the role would tend to encourage a somewhat generalised process resembling a Critical Incident Technique (CIT).

Initially discussed by Flanagan (1949), and further refined by Ronan and Latham (1974), Latham, Fay and Saari (1979) and others, the Critical Incident Technique requires the systematic observation of ratee job accomplishment and behaviour in relation to several performance dimensions. Such dimensions may include technical knowledge, application of knowledge, administrative effectiveness, interpersonal relations, response to superiors, delegation, and personal commitment, and are subsequently translated in terms of defined *critical* job incidents. Flanagan considers it essential that these incidents constitute specific work situations relating to important aspects of the job and

must therefore represent actually observed behaviours. Thus, the translated observations may then be scaled to provide a series of illustrative behavioural anchors, with each descriptor establishing the performance parameters for Behavioural Observation (or Expectation) Scales by defining the various levels between successful and unsuccessful job performance.

However, previous discussion has examined salient issues relating to encoding and recall and suggested that, as memory for specific behaviours improves, so judgemental accuracy also improves (see Woehr and Feldman, 1993). This perhaps poses questions regarding appropriate methodology for recording performance related information, particularly as the interval between observation and rating may be considerable.

Thus, in many cases it is likely that critical observations may be made over a protracted period of time, possibly encompassing a variety of situations each with their own contextual implications. It may therefore seem imprudent to rely solely on raters' cognitive processes for the recall of situations and events, and consequently diaries and checklists are frequently utilised to promote accuracy and aid discrimination. However, an equally recent study by Maurer, Palmer and Ashe (1993) suggests that such instruments may not only be ineffective at reducing between-ratee contrast effects, they may actually strengthen the effects, thereby negating their usefulness in improving contextual discrimination. This may lead to the conclusion that there are no beneficial alternatives to an ingenuous reliance on the cognitive abilities of the rater, which may nonetheless be interlaced with various trait judgements and further modified by rater concerns and other contextual issues.

The use of psychometrics in performance assessment techniques:

With all of the distortion and conflict seemingly inherent in the performance appraisal process, it may appear that the road to effective needs analysis is unduly pitted with difficulty. However, it may readily be argued that behavioural idiosyncrasy is a function of all human interaction, and is therefore inherent within the construct of all those individual differences that produce expertise and talent in every area of human endeavour. Thus, although traits, biases and concerns are universal features of performance appraisal methodology, it may serve little purpose to emphasise the commonality of such characteristics and systematically suppress them in order to simplify needs analysis practices. On the contrary, it might seem important to develop mechanisms for identifying such elements within the performance appraisal process, and

establish techniques for assessing their contribution or impediment to both individual and organisational growth.

Equally, in recognising that these elements have a significant influence in the rendition of performance appraisal, it is therefore suggested that such factors may be measurable along with other traits that form individual personality and attitude. Thus, a link with psychometrics has long been established, and this branch of psychology has subsequently provided much structural input into needs analysis technique since its early inception.

A revolutionary development in the application of psychometrics originated in Paris during 1904, when Alfred Binet was appointed by the Minister of Public Instruction to develop a methodology that could separate mentally retarded from normal school children. Binet subsequently assembled a set of thirty standard scales, which could effectively discriminate between 'bright' and 'dull' pupils as well as institutionalised and average children, and thereby laid the foundation for a series of procedures which were to be widely used in retardation diagnosis for the next sixty years. However, such procedures, including the later Stanford-Binet derivative of 1919, were not free from connotations of social defectiveness, nor from inferences of class and race effects that emanated from notions of intellectual and moral superiority. Authors such as Eysenck (1967) and Jensen (1973) have continued to fuel related debate into genetics and intelligence, leading contemporary psychologists to concur that 50% of the variation in intelligence scores is inherited (see Rust and Golombok, 1989).

Notwithstanding such debate, this line of enquiry has nevertheless resulted in the development of various analytical procedures that have enhanced the rater's ability to compile knowledge based data (measuring ability, aptitude and achievement) and person based data (measuring personality, mood or attitude), each relevant, in some degree, to performance appraisal and needs analysis. Thus, seminal investigation into the measurement of intellect by Galton and Pearson during 1883, produced the Pearson Product-Moment Correlation Coefficient which subsequently heralded the development of multiple correlation coefficients and the chi-square test. Charles Spearman expanded this work, and in 1904 produced the procedures for more complex correlation matrices and established the foundations of factor analysis, thereby facilitating the investigation of multi-variable behavioural relationships.

Such activity similarly precipitated the construction of the Graphic Rating Scale (see Paterson, 1923) and provided scaling procedures for the criterion-referenced techniques which form the basis of contemporary Behaviourally Anchored Rating Scales. Thus,

some analytical aspects of performance appraisal methodology have long pedigrees which even predate the scientific management school exemplified by such practitioners as Frederick W Taylor (1911).

It is therefore supposed that the application of such well established concepts should introduce, into the performance appraisal process, heightened dimensions of reliability and validity which might implant a greater degree of precision into needs analysis practices. That this may indeed be the case is manifestly demonstrated in the proliferation of related literature since Smith and Kendall conceptualised Behaviourally Anchored Rating Scales during the early sixties. However, despite much debate on the comparative merits of BARS techniques, it is suggested by Herbert and Doverspike (1990) that such discussion may be focused on idealistic methodology and that factual data supporting the usefulness of performance appraisal information within the needs analysis process is incomplete and inconsistent. Implicit in the apparently pessimistic stance of Herbert and Doverspike, is the recognition that performance appraisal is an important needs analysis technique, yet its utility for this purpose appears to be somewhat devalued through imprudent linking with other summary procedures (see TABLE 4.1). Moreover, their concerns are reflected in the assertions of Cascio (1982), McAfee (1982), Leat and Lovell (1997) and others, who likewise caution against the use of performance appraisal processes for any purpose other than the determination of training and developmental needs.

Thus, from the literature a series of corollaries may be drawn that might shape the development of an appropriate paradigm for effective needs analysis. In the following chapter such corollaries are briefly reviewed as a precursor to defining the research hypotheses and creating a conceptual model of the envisaged process.

SURVEY OBJECTIVES, CONCEPTUAL MODEL AND RESEARCH HYPOTHESES

Previous chapters have surveyed contemporary literature, exploring issues that appear to be central to the needs analysis process and identifying some of the flaws inherent in extant practices. Related discussion has lent support to the three-fold classification of needs analysis originated by McGehee and Thayer (1961) and subsequently favoured by various authors including Bramley (1989), Herbert and Doverspike (1990) and Leat and Lovell (1997). Such needs classification essentially integrates organisational objectives, task requisites and individual needs and is thereby perceived to appropriately position training and developmental needs within their organisational and physiological contexts. Thus, in seeking a framework for a responsive, analytical instrument that might accurately locate such needs, the conceptual challenge is concerned with extracting the principal need components at organisation, task and person level and translating them in behavioural terms to assist the identification of training and developmental interventions.

Preliminary corollaries for an effective needs analysis instrument:

Therefore, in considering the design criteria for an effective needs analysis instrument, the following corollaries might reasonably circumscribe the major issues contained within the literature:

Authors such as Hyde and Smith (1982) point to the conflict that exists when appraisal systems are used for a number of administrative purposes. Hence **COROLLARY 1:**
The instrument should be developed solely as an aid to needs analysis, and therefore visibly and physically divorced from any other interpersonal function.

Cummings (1973) suggests that raters and ratees may not truly believe that the appraisal is solely for developmental purposes, despite conspicuous evidence of a dedicated needs analysis system. Thus **COROLLARY 2:**

The instrument should provide perceptively non-judgemental evaluations, which demonstrably initiate training and other developmental processes.

Landy and Farr (1980) and others, assert that raters are prone to making a number of

well-documented errors which may affect the veracity of the needs analysis process when its purpose is anything other than the determination of training and development needs.

Hence **COROLLARY 3:**

The instrument should present the rater as a counsellor and cultivator, thereby minimising 'rater concern' and encouraging veridical judgement.

Herbert and Doverspike (1990) state that "the behaviour rating system used in making the diagnostic person analysis should include all those areas of required performance that can be identified". Therefore **COROLLARY 4:**

The instrument should ideally include such dimensions as: technical knowledge; application of knowledge; administrative effectiveness; interpersonal relations; response to superiors; delegation; and personal commitment.

McGehee and Thayer (1961) and others, posit that performance appraisal and needs analysis should be undertaken at three levels of analysis; the organisational level, the job level, and the person level. Thus **COROLLARY 5:**

The instrument should address a wide range of training and developmental issues that may arise through organisational change, technological evolution, work organisation, and individual aspiration.

Burnaska and Hollmann (1974) suggest that leniency and halo effects may be present in all rating formats, but the BARS procedure appears to exhibit less of these distortions and provides improved discrimination. Hence **COROLLARY 6:**

The instrument should, if practicable, be constructed around Behavioural Expectation Scales as advanced by Blood (1974) in order to improve psychometric precision.

From the earlier model of the organisation (DIAGRAM 1.2), various components can be identified that are pivotal to organisational well-being. Moreover, the study of 'office technology and task roles' has endeavoured to establish a profile of administrative support staff and indicate the direction and scope of future change. 'Motivation and work organisation' has examined aspects of employee satisfaction, whilst 'performance appraisal evolution' has explored different mechanisms for effective needs analysis and discussed the biases and distortions that are inherent in the application of contemporary systems.

The next phase of the investigation is therefore concerned with extracting and collating the salient elements from previous discussion and constructing a conceptual paradigm of an appropriate diagnostic process that might effectively determine the training and developmental needs of administrative support staff. Thus **COROLLARY 7:**

The instrument should be responsive to the changes facing administrative support staff, their task roles, and the organisations in which they work.

In selecting administrative support staff as the focal employment category for this study, a sector representing some 16% of the total UK workforce and 27% of all economically active women is nominated (see TABLE 2.1: Eurostat Labour Force Survey, 1994).

Moreover, it is a sector that is generally undergoing singular transition as a consequence of technological evolution and the progressive flattening of management structures and is correspondingly likely to rigorously challenge the hypotheses of any needs analysis methodology. However, whilst the proposed instrument is theoretically drawn around the task roles of secretarial and administrative support staff, this is not intended to suggest a mutually exclusive procedure that is resistive to adaption for other employment categories.

Revisiting the literature and clarifying the aims of the research:

From the previous review of the literature, it is clear that a number of important questions remain unanswered regarding the nature of organisations, their cultural preferences and the influences of inner and outer contextual forces on the task roles of their administrative support staff. However, in acknowledging the breadth of such topics it is evident that the enquiry might assume a somewhat unwieldy dimension if not confined to the more salient aspects of the literature. Hence, the following discussion revisits those central issues in order to map the direction of the research and subsequently lay the foundations for the research hypotheses:

Needs analysis at the organisational level:

There is abundant evidence that the United Kingdom is experiencing a sectoral change from manufacturing to service based industries, with official labour statistics showing predictable average growth in service personnel of 2.4% per decade between 1861 and 1971, accelerating dramatically to 15% per decade between 1971 and 1981 and 22% per decade between 1981 and 1991 (see TABLE 1.1, TABLE 1.1A and TABLE 1.2). In many cases, this is necessitating a measure of ideological reappraisal, particularly where organisations are changing from a product-based to a service-based culture, or perceive a need to otherwise adapt in order to fit new business realities (Schein, 1985 p.38).

However, whether the organisation is in equilibrium or in transition, there is likely to be

an ongoing need to encourage members to be demonstrably supportive of current cultural norms and thereby ostensibly represent the image and personality of the organisation. Where corporate purpose is long established and well defined, this may be deeply ingrained and self-perpetuating due to the probability that the culture will be strongly rooted in all areas of organisational life and therefore constantly enforced at each point of interaction. However, where organisations are subject to rapid change through corporate redirection, or via such factors as deregulation, mergers, privatisation, joint ventures, etc., the members may be expected to adopt new value systems demanding radical behavioural adjustments. The idea that the adoption of new value systems may be strategically important to organisational well-being is clearly plausible (see Burack, 1991 p.88), yet it is commonly held that significant cultural improvement may take a number of years to realise (Dumaine, 1990).

However, in reviewing the needs of customers, employees, suppliers, and other stakeholders, it may appear strategically imperative that new practices and values are introduced that might lead to functional improvements and some criteria of organisational success. How then may change be planned, initiated and driven? This is discussed in a previous chapter, where Smith, Whittle, Tranfield and Foster (1993) suggest a process that is conceptually elegant and seemingly worthy of wider evaluation. Drawing on previous work by Mintzberg (1989) they describe strategy shaping behaviour in terms of planning, visionary, and learning mindsets, to which they add a further transformation aspect to provide an agenda for facilitating regenerative momentum should the process flounder.

Peters and Waterman (1982) have attempted to establish the characteristics of successful organisations, suggesting that these are highly cultural in nature and orientating towards the customer (eg; quality, responsiveness, efficiency, etc.), whilst Kotter and Heskett (1992 pp.28-29) assert that there is no such thing as generically good cultural content that is appropriate for every organisation. They consequently argue that culture must fit contextually, such context relating to objective industrial conditions, the industrial segments within the strategy and the business strategy itself.

Gordon (1985 pp.103-125) appears to agree and offers empirical evidence to support the notion that different industries develop different cultural patterns to suit their business demands. However, a more conservative view may suggest a measure of validity for both arguments inasmuch as, whilst different industries might exhibit different cultural patterns, there could nevertheless be various characteristics that are valued by all

organisations as important contributors to strategy and corporate success. *Thus, it would appear beneficial to survey and identify contemporary cultural values to determine whether sufficient commonality exists across all major industrial segments to justify their inclusion within a needs analysis instrument.*

Howells and Green (1988 pp.47-49) nevertheless point to a long-standing social division of labour, suggesting a white collar/blue collar dichotomy with clear geographical dimensions. Thus, cultural differences may be exaggerated through the regional intensification of similar industries and further amplified as a result of the comparatively low mobility of administrative support staff. *Consequently, whilst the desirability of certain cultural values might be common to all industrial segments, some characteristics may be shown to have distinct regional dimensions that may emerge through the geographic spread of survey respondents.*

Moreover, Whipp, Rosenfeld and Pettigrew (1987 p.15) posit that the way in which organisations assess the prevailing economic, business and political climate determines their strategies, structures, technologies and cultures. Although each of these may evoke varying degrees of organisational change, their relative importance would be determined by factors associated with the comparative ease with which related strategic programmes can be adopted. *This suggests that the survey might identify pertinent cultural, structural and technological elements whose perceptual importance may reflect the comparative ease with which they can be addressed as strategic training issues.*

Authors such as Haug (1973 p.197) argue that deprofessionalisation is the trend of the future as professional occupations relinquish their monopoly over knowledge, service ethos and expectations of work autonomy. On the other hand, Bell (1968) predicts the emergence of a 'post-industrial' society where the professional will be pre-eminent. Hennebach (1989) seems to endorse the former, observing that administrative support staff are becoming increasingly involved in a range of paraprofessional activities, encouraged by improved communication systems, flattening management structures and the redefinition of managerial roles. *Thus, the survey might support the proposition that the task roles of administrative support staff are converging to some degree into paraprofessional or managerial related job functions, inferring the need for progressive emphasis on individual training and development.*

Studies by Clifton and Tatton-Brown (1979), Storey (1985), DTI (1991) and Cambridge Small Business Centre (1992), confirm the recruitment of experienced, hard-working staff to be one of the most fundamental difficulties experienced by smaller firms and by new

enterprises (see Atkinson and Storey, 1994 p.14). Moreover, disregarding short-term recessionary effects, Povall et al (1991) point to regional scarcities in clerical and secretarial skills which are forecast to grow and not readily solutioned through future intra-sectoral movement or the wider mobility of labour. Thus, the recruitment, development and retention of administrative support staff are important contemporary issues, illustrated by the recent Training Agency funding of a related project aimed at devising a strategy for reducing the deficit in experienced secretarial personnel (Povall et al, 1991). *Therefore, the survey might establish that a significant number of organisations recognise the strategic importance of administrative support staff development and are accordingly committed to providing appropriate training programmes.*

Needs analysis at the task level:

Previous discussion has narrated how the new wave of office automation commenced in the mid 1970's with the inception of the electronic typewriter and heralded momentous advances in the development of office equipment, micro-electronics, computer miniaturisation and telecommunication systems. Thus, the subsequent emergence of the word processor and personal computer introduced the potential for dramatic improvements in office efficiency and brought with them much concern and speculation regarding their long-term influence on employment levels and task roles. However, the new technology did not result in the massive labour displacement prophesied by contemporary authors, nor did it introduce Taylorism into the office. Rather, it led to the progressive integration of office equipment, computing and telecommunications and prompted the evolution of flexible integrated systems that would provide the mechanism for efficacious departmental and corporate decentralisation and the medium for superior information systems.

Almost paradoxically, administrative support personnel tended to respond favourably to the new technology and rapidly adopted it, thereby increasing their control over crucial aspects of business communication (Hennebach, 1989). Similarly, due to a general misconception regarding the text management capabilities of word processing equipment, some managers inappropriately attributed it with measures of literary creativity and unwittingly delegated a significant amount of their traditional workload to secretarial staff (see Chalude, 1984). Moreover, this partial delegation of managerial authorship coincided with the general availability of data-bases, spread-sheets, computer graphics, and desk-top publishing packages and thus text and data enhancement processes became

typically routine within a variety of secretarial and clerical tasks. *Therefore, a survey of administrative support tasks across major industrial segments might reveal a universally high standard of literary competence allied to modern text processing skills.*

The National Economic Development Office (1983) suggests that the introduction of information technology results in far more new skills gained than in old skills made superfluous. This is reflected in an earlier report by Connell, Bird and Hall (1980), who predict that skills in information management and analysis will be crucial to the development of office staff. They therefore advocate the need for training in:

- i) information monitoring and scanning (specifying key variables)
- ii) information filtering and selection (identifying what is relevant)
- iii) information editing and summarising
- iv) information presentation
- v) information storage and retrieval

Thus, the survey of administrative support tasks might disclose the need or desire for competence in information technology that is common to all industrial segments.

Equally, just as new office technology is precipitating wide-ranging opportunities for job enlargement, so is the new technology facilitating the absorption of many middle management jobs previously involved with the processing of information flows (Hennebach, 1989). This in turn may unfold new and very real opportunities for horizontal job enlargement or vertical role integration, enticing administrative support staff into various paraprofessional type activities that were formerly the domain of functional managers. It also suggests the importance of learning new competencies, and Hennebach lists a number of these, advocating ".....word processing, business writing, office data systems, public relations, understanding the company product, communication systems, data analysis, accounting, management principles, and graphics and layout, to name a few". *Thus, the survey might suggest various managerial and paraprofessional competencies that would encourage the wider development of administrative support staff and subsequently contribute to job enrichment and individual development.*

An earlier prediction of technological evolution by NEDO (1983) suggests that language skills will become increasingly important in filtering and synthesising information as non-simultaneous electronic messaging replaces a significant proportion of telephone and face-to-face conversations. Although Webster (1990) cautions against reading dramatic transformations of working patterns into future rounds of office automation, the feasibility of this and similar innovation, must question current working practices and

perhaps stimulate notions of prospective skill needs in order to exploit technological progression. *Thus, the survey of administrative support tasks might disclose significant areas of commonality across all industrial segments regarding the principal competencies that are perceived to be important for progressive job enlargement and to satisfy individual aspirations.*

Needs analysis at the person level:

Taylor (1911) suggests that individuals ostensibly fulfil their economic needs by working for monetary rewards and are consequently prepared to submit to various dehumanising activities in return for financial incentives. Maslow (1943) however, posits that the implicit assumption that economic gain is a primary motivator indicates the pursuance of lower level needs associated with safety and security, which may therefore be conditional on an individual's positioning within a notional physiological hierarchy. Researchers such as Herzberg (1966) support this view, and endorse the opinion that satisfied physiological demands are supplanted by progressively higher needs; whilst Alderfer (1972) asserts that such needs may be reversionary, with lower order needs assuming greater prominence should insecurity, failure to fulfil growth needs, or other frustrations induce personal concern. Thus, these theories appear to make a number of fundamental assumptions regarding the nature of man's motivation within the organisation, perhaps implying derivatives of a generalised theory that individual motivation has much to do with interaction between needs, expectations, work experiences, and relationships with others. However, Goldthorpe and Lockwood et al (1969) posit that the origins of motivation may also emanate from external factors divorced from organisational sources, indicating that some employees appear to adopt instrumental attitudes to work and view their employment principally as means of elevating standards of consumption and not as sources of satisfaction.

This disparity would seem to endorse the notion that human behaviour is extremely complex (see Schein 1965 p.41) and may therefore defy the construction of a unique theory of motivation that could be applicable to each individual in differing organisational and social contexts. Moreover, perhaps the reward itself may be less important than the verification of the strength of the individual's orientation towards achieving a desired outcome (see Vroom, 1964) and the subsequent provision of some route towards its attainment. This directs the focus back to needs analysis at the person level, where such outcomes may be identified and translated in terms of how they can be realistically

achieved within the job or organisational structure as motors for individual development and corporate success.

However, it is apparent that individuals may lack the personal characteristics and competencies that might sustain their effectiveness in existing or enlarged task roles, or the traits and attributes necessary to exploit future career opportunities. It is equally clear that certain individuals are predisposed to particular types of tasks and are consequently more likely to be successful if their energies and abilities are channelled towards these preferences. Such inclination may be determined via psychometric evaluation, but may nevertheless be transparent from obvious clues discarded during day-to-day work activity. Similarly, peripheral needs and interests may be established through general conversation, whilst ulterior needs might be determined as a result of counselling or third-party communications.

As with the 'organisation' and 'task' aspect of needs analysis, it is suggested that commonalities may exist between organisations regarding desired personal traits or attributes for both general and specific task functions. However, whilst an attribute may be endowed through experience and learning and therefore represent a developmental issue; a trait may present complexities in terms of whether it is capable of modification through a process of learning and reinforcement, or whether it is deeply ingrained and rooted in non-conscious behaviour. Thus a negative attribute of poor punctuality may, for example, be corrected through a programme of time management, whilst the trait of dishonesty might be incapable of correction.

Similarly, an individual may appear to be characteristically disloyal, yet it is perhaps possible that this employee has not learnt to distinguish between irreverent and seditious behaviour. Moreover, the exercise is made no easier by virtue of the rater's own behavioural preferences, suggesting a caution concerning the possible introduction of bias and other distortions of judgement. Also, Fairbairns (1991 pp.43-45) discusses a situation where a training need may be important to the individual, job related and strategically beneficial to the organisation, yet unlikely to be supported by local management. This may arise where new strategic objectives challenge well-entrenched practices, but may also occur if the training need is at odds with some notional stereotype such as assertiveness training for female secretarial staff.

However, such attributes may nevertheless be important to individual development. Interestingly, a survey by The Industrial Society (1991) exploring the most highly rated attributes in a secretary, ranked in descending order: initiative, accuracy, confidentiality,

flexibility, knowledge, confidence, tact, humour, and assertiveness. As suggested previously, some of these attributes may be learnt or enhanced through appropriate interpersonal training and periodic reinforcement. *Thus, a survey of managers within different industrial segments might reveal a global level of satisfaction or dissatisfaction with the interpersonal and social skills of secretarial and administrative support staff.*

Previous comment has expounded the importance of appropriate skills training in preparing individuals for horizontal job enlargement and vertical role integration. Whilst the former exposes individuals to paraprofessional skills that might previously have been the domain of functional managers (eg., finance, personnel, marketing, public relations, data processing, etc.), the latter encourages individual involvement in supervisory and monitorial activities in support of flattening hierarchical structures.

Thus, at the person level of analysis, interpersonal development and additional training in other skill dimensions may be necessary to equip individuals for new or extended job roles that match their expectations. Again, such development might possibly be tangential to current task roles, yet may offer considerable organisational benefits in terms of succession planning or future corporate strategy. Also, in focusing on the individual's needs and expectations, it may represent an effective source of motivation, perhaps producing prolific gain at the task level. *Therefore, the survey might disclose a range of skills that may principally advance the development of the individual whilst providing significant current or future benefits at task and organisational levels.*

The notion that such such development may be crucially important to individual and organisational well-being, is illustrated in some of the programmes that have been initiated by various major companies.

For example, the IBM corporation insists that all staff have long-term job development objectives that are subsequently formulated into a personalised training plan for the individual's career progression.

The Mitre Corporation provides a 'soft-shell' job transfer scheme, whereby staff members may temporarily change departments in order to explore alternative vocational options.

Texas Instruments encourage secretarial staff to apply for any internal positions that may interest them, thereby perceptively minimising their isolation from promotional opportunities. *Thus, the survey might reveal that a significant number of organisations focus on the horizontal and vertical development of their secretarial and administrative support staff when devising training programmes, perhaps substantiating the propriety of an appropriate diagnostic needs analysis instrument.*

An illustration of the BES methodology:

Former chapters have centred around some of the prominent factors influencing organisational change, and identified many of the pivotal issues concerning administrative task roles and individual motivation. In subsequent discussion relating to performance appraisal and needs analysis methodology, it is suggested that Behavioural Expectation Scales might provide an effective mechanism for the diagnosis of training and developmental needs if the necessary components can be identified, validated and incorporated within a practicable BES framework.

However, in considering such components a number of 'performance' dimensions emerge that may be of generic importance to contemporary organisations and their administrative support staff. Moreover, such dimensions may include further subsets of specific skill or behavioural items that might represent training issues crucial to the strategic objectives of organisations, the development of individuals within them and the effectiveness of their existing and future task roles. Therefore, in its notional application, the BES mechanism should endeavour to collate critical examples of observable performance within each dimension and express them in a range of behavioural terms representing differing levels of acceptable or unacceptable performance. Thus, the highest level of acceptability will indicate a superior employee requiring no remedial intervention within that specific dimension, whilst lower levels may suggest varying degrees of monitoring or training.

Consequently, the process hinges on the translation of previously observed critical incidents into a number of behavioural expectation descriptors which may be scaled according to levels of acceptability.

As an example, an organisation may be moving from a product based to a service based culture, where aspects of customer care are considered essential to the new strategy. Therefore, customer care is likely to be a desired culture value for which observed incidents of superior, good, mediocre and poor customer care may be narrated to represent typical behavioural expectations.

For example:

This individual can always be expected to present the highest standard of customer care in dealing with clients, suppliers, and internal agencies

may suggest superior performance in this subset requiring no further action. However, the substitution of *always* by the adverb *sometimes*, indicates a markedly lower level of performance necessitating some training intervention in order to address the differential. Similarly,

This individual can often be expected to be non-diplomatic with clients and rude to suppliers

may suggest poor or unacceptable performance demanding interpersonal development and perhaps telephone skills training.

In much the same way, this methodology may be applied to task dimensions and their subsets in order to assess the need for further vocational training. For example, organisations may consider that literary competence and modern text processing skills are essential requisites for their administrative support staff. Thus, descriptors illustrating the various levels of performance might be applied along a similar notional scale, and perhaps narrated as follows:

DIAGRAM 5.1: An Example Behavioural Expectation Scale

1.2

This individual can always be expected to produce the highest standard

1.0 *of literary composition and report writing using desk-top publishing technology and a range of data enhancements*

0.8 *This individual can be expected to produce a high standard of literary composition using word-processing and desk-top publishing technology*

0.6 *This individual can be expected to produce an acceptable standard of literary composition, and accurately reproduce it on an electronic typewriter*

0.4 *This individual could not be expected to produce comprehensible and grammatical written material from source information*

0.2 *This individual is always expected to make typographical errors when producing copy from original material*

0.0

Thus, a rating between 0.2 and 0.4 suggests that the individual does not make significant typographical errors but is presently unable to originate acceptable literary composition. Similarly, a rating between 0.6 and 0.8 signifies some word-processing ability and an improved standard of literacy.

Consequently, the appropriate training intervention may be interpreted as that which is necessary to move the individual from the current position on the scale, to that required by the organisation, task and individual. Although the ratings are clearly subjective they

are nonetheless stimulated by the observation of prior critical incidents and are therefore arguably valid for developmental evaluation. Furthermore, the discriminatory precision of the mechanism may perceptively be increased by lengthening the scale in order to facilitate the accurate positioning of ratings. It would thus seem reasonable to postulate that providing performance dimensions can be clearly expressed and accordingly positioned along an evaluative scale, then the resulting instrument might be utilised to accurately determine appropriate training intervention. ***Thus, the survey might identify essential competencies that can be translated into behavioural terms and effectually structured within a BES framework applicable to secretarial and administrative support personnel.***

Aims and objectives of the research project:

Therefore, drawing on the literature review and the preceding discussion, the research hypotheses may reasonably be articulated. Whilst individual hypotheses might not necessarily be critical to the conception of a needs analysis methodology, issues will be nonetheless addressed that appear collectively pertinent to a fuller understanding of need at the three levels of analysis. Moreover, it is anticipated that in exploring and testing the various hypotheses, the findings may offer some contribution to the literature and perhaps expose salient areas for further investigation.

Thus the principal research hypotheses are:

- ◆ that areas and degrees of commonality may exist in the cultural preferences of organisations
- ◆ that there may be a relationship between an organisation's cultural orientation and the type and extent of change that it may be experiencing
- ◆ that the type and extent of organisational change may have a discernible influence on the task roles of secretarial and administrative support staff
- ◆ that the skills and competencies required by organisations, administrative task roles and the individuals working within them can be identified
- ◆ that the methodologies presently employed in determining the training and developmental needs of administrative support staff may be established
- ◆ that the components for an appropriate TNA instrument based on behavioural expectation scales may be discerned and developed
- ◆ that a potential requirement exists for such an instrument

A conceptual research model for the application of the diagnostic instrument:

Previous discussion has proposed that an appropriate needs analysis instrument might feasibly comprise a series of Behavioural Expectation Scales encompassing a number of performance dimensions and subsets relating to the three levels of analysis advocated by McGehee and Thayer (1961) and others. Thus, these three levels of investigation will be concerned with analysing the differences between:

- i) the performance needs of the organisation, and the relative behaviours expected from the individual
- ii) the performance needs of the task, and the relative behaviours expected from the individual
- iii) the physiological needs of the individual, and the individual's personal developmental needs

These differences subsequently form the basis of a diagnostic training needs analysis from which a personalised training and developmental plan may be formulated that addresses the specific issues revealed through a mechanism such as the the BES instrument.

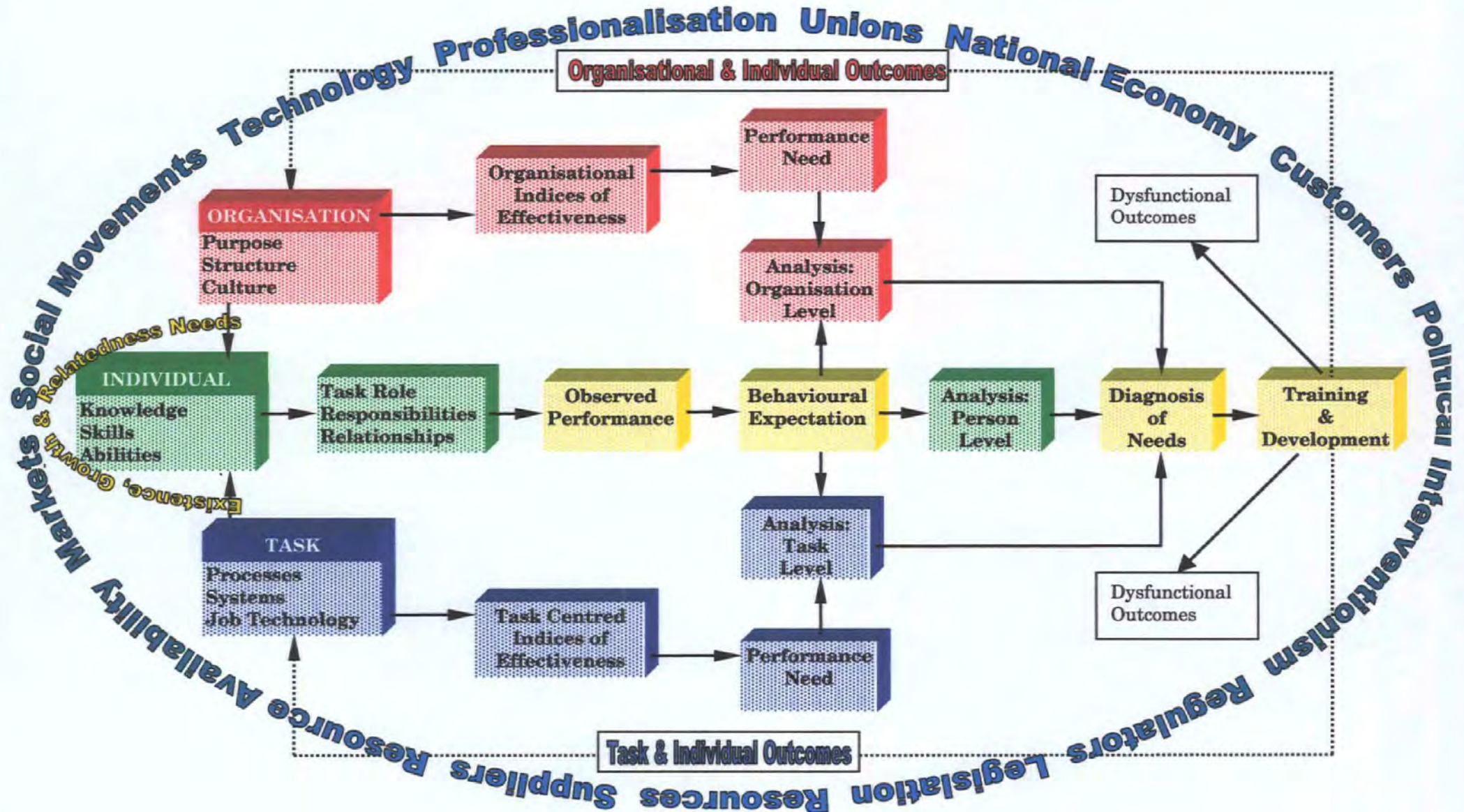
A conceptual schematic of this needs analysis process (see DIAGRAM 5.2) depicts the relationships and interactions that influence the needs of the individual. In introducing physiological factors into the paradigm, the three needs identified by Alderfer (1972) are incorporated, *ie.*, *existence, relatedness, and growth*, as a less rigid and perhaps less idealistic alternative to Maslow's hierarchy of needs (see Aldag and Brief, 1979).

Organisation and task requisites are similarly positioned, as are the points of intervention for analysis, diagnosis and training.

In essence, the model illustrates how outer contextual forces play directly on the organisation and the task (and indeed on all areas of organisational activity), generally causing their indices of effectiveness to be modified in line with changes in business realities. Such forces for change may also have a direct influence on the individual by challenging those needs relating to material existence and those relating to the physiological growth that results from productive or creative achievement. Equally, change effects permeate through the organisation via inner contextual forces linked to strategy, culture, job technology, process and structural change, etc. (see also DIAGRAM 1.2). Thus, in order for the organisation to survive and prosper, it must respond to forces for change by developing appropriate strategies and integrating them into a cultural framework that will constantly reinforce the strategic emphasis. In a similar way, the

A CONCEPTUAL MODEL FOR NEEDS ANALYSIS

DIAGRAM 5.2



task must comply with expanding goals and objectives, which will typically be achieved through a combination of work reorganisation, technological revision and individual development.

Thus, differences between the anticipated performance of the individual (based on prior observation) and the changing performance requirements of *a)* the organisation, *b)* the task and *c)* the individual, suggest the necessity for periodic analysis and diagnosis in order to implement effective training and developmental interventions. Hence, a BES mechanism is suggested as an appropriate mechanism to shape analysis and diagnosis, potentially leading to cultural reinforcement and job enhancement opportunities through job enlargement and job enrichment practices.

In terms of its practical application, it is anticipated that the diagnostic needs analysis instrument will be used solely for training and developmental purposes in order to minimise distortions resulting from rater bias and rater/ratee concern and induce confidence in its application. It is also proposed that the instrument be initially constructed to analyse the present and future needs of administrative support staff, thereby presenting the opportunity to rigorously test the propriety and precision of the methodology within a highly populated catchment.

However, it is seemingly futile to devise such an instrument in isolation without due regard to the literature that has charted organisational, task and individual needs. Katz and Kahn (1978) and Steers (1977) illustrate the link between organisational purpose, culture, structure, technology and processes, whilst the work of Pettigrew et al (1992) suggests a contextual framework that perceivably encapsulates the relationships between the various components (see DIAGRAM 1.2). It is therefore evident that the interplay between inner contextual issues is an inherent feature of organisational behaviour and will correspondingly exert significant influence on training and developmental interventions.

Thus, mergers, acquisitions and privatisation programmes, etc., might modify organisational *purpose* to encompass more competitive business philosophies in an effort to improve market positioning, gain customers and attract investors and other stakeholders (see CHAPTER ONE). Consequently, there may be an essential need to move from an insular or bureaucratic *culture* to one that is highly adaptive and commercially focused. This reasonably suggests the benefits of cultural orientations that are customer focused, market responsive and quality aware, etc., each implying a concept that might be engendered and reinforced through appropriate training.

However, whilst the literature is well served on the subject of organisational culture, opinion remains divided regarding the ease with which cultural change can be effectively implemented. Authors such as Uttal (1983), Schwartz and Davis (1981) and Dorson (1972) consider cultural change to be riddled with difficulty to perhaps the point of impossibility, with top-down restructuring being possibly the only effective measure. On the other hand, commentators such as Peters and Waterman (1982), Deal and Kennedy (1982) and Killman (1982) propound that cultures can be readily manipulated via direct intentional action, whilst others such as Dumain (1990) view the path to cultural change as long and torturous, taking perhaps five to ten years to navigate. Nevertheless, a common panacea emerges from the literature, where Lewin (1947), Mintzberg (1989) and Smith et al (1993) suggest unfreezing the existing level of behaviour; moving the social system from its present level to the newly prescribed condition; and then refreezing to make the new level of behaviour relatively secure against future change. Implicit in this notion is the need to define desired cultural orientations in behavioural, functional and performance terms that relate to the strategies, goals and objectives of the organisation.

Thus, the link between purpose, culture and employee development is quite transparent, whilst their connection with organisational *processes* is equally obvious. Here, such factors as leadership, work organisation and motivation exert an unarguable influence over performance (see CHAPTER THREE), ultimately facilitating goal achievement through the processes of planning, problem solving and decision making.

Conjunctively, organisational *structures* are typically undergoing significant change in response to new business realities, perhaps alternating between a centralised/decentralised authority or adapting to varying degrees of hierarchical delayering. Once again, a relationship between work organisation, structural change and performance is clearly evident, revealing an obvious catalyst for horizontal job enlargement and vertical role integration. However, whilst there is an essential role for training and development in the implementation of horizontal and vertical initiatives, the importance of training in reconciling individual, task and organisational goals should not be understated.

For instance, it is counter productive for employees to perform well in task dimensions and simultaneously fail to reflect the cultural ideals of the organisation. Thus, practical efficiency may not necessarily result in customer satisfaction if organisational behaviour does not exhibit a caring, customer focused orientation. Equally, a perceived lack of quality focus in the production of goods and services might consign an organisation to a

catchment of the marketplace from which it may be unable to extricate itself. Similarly, a company that is not market responsive might dilute its customer base, be oblivious to new commercial opportunities, and perhaps ultimately face extinction through its inability to evolve.

It is therefore apparent that such commercially centred orientations are generally critical to organisational success but might reasonably be developed, honed and reinforced through training intervention. Thus, the importance of integrating organisational need into training needs analysis becomes increasingly clear, yet it is equally essential to ensure that an organisation's belief about its own cultural orientation is shared by its customers, employees and other stakeholders. For example, there is abundant evidence of cultural ideals undergoing translation into mission statements that are seen merely as management platitudes to notions of excellence, service and quality.

Moreover, where organisations undervalue such orientations as employee centredness they risk inefficiency through demotivation, alienate one of their most important identity audiences (see Ind, 1990) and discourage employee contribution to organisational health and corporate success (see especially Legge, 1996). Thus, the many facets of motivation and expectancy theory are arguably central to the constitution of task roles and in the assignation of related authority and responsibilities (see CHAPTER THREE), reasonably endorsing their inclusion within contemporary management training programmes.

Nevertheless, in considering task role transition and in particular that of secretarial and administrative support staff, it is evident that *job technology* has evoked much controversy since the emergence of new office technology. CHAPTER TWO endeavours to chart the significant advances in micro-computing development and comments on the speculation that preceded its introduction, subsequently sowing predictions of mass secretarial displacement and the introduction of Taylorist working practices into the office environment.

Perhaps the main misconception underpinning many of the fallacious prophesies resulted from a widespread conviction that the micro-computer was essentially an instrument of productivity at the task and individual level. This has subsequently been shown to be an erroneous assumption and it is increasingly evident that new office technology is also facilitating wider organisational change, precipitating task role transition, supporting structural delayering, enhancing management reporting procedures and optimising many areas of internal and external communication. However, the earlier models of Steers (1977) and Katz and Kahn (1978) present significant clues that this is indeed likely to be

the case. Thus, in allying job technology with purposes, culture, processes and structure (illustrated in DIAGRAM 1.2) they demonstrate its inherent linking with all spheres of organisational activity.

Contextual issues within the investigative framework:

It may therefore be discerned from previous discussion that an appreciably high level of organisational interplay exists that might perceivably make it inappropriate to examine specific contextual issues without due regard to others. Thus, in framing the various survey questions it is considered necessary to broaden the survey to include as many questions as practicable that might clarify, or measure, inner contextual dependencies.

Nonetheless, it is perhaps equally important to gauge the influence of outer contextual issues on the organisation (see CHAPTER ONE), particularly with regard to their impact on the various spheres of inner organisational activity. Fortuitously, researchers such as Daniels (1980), Green (1985) and Howells and Green (1988) have adequately explored the inter-sector mobility of office staff (see TABLE 1.4), thereby negating the need to examine socio-spatial influences in the distribution of administrative support personnel.

However, other influences such as the national economy, resource availability, employee legislation and competition, etc., clearly have a more dynamic effect on contemporary organisations and the way that they structure themselves. Thus, changes in the outer context might feasibly alter organisational strategies, goals and objectives (ie., modify it's purpose) with a cascading influence on all other spheres of inner contextual activity. Consequently, such change may have a very real effect on training and developmental need at all three levels of analysis and thus a related investigation should endeavour to measure the comparative influence of outer contextual factors and explore any correlative associations in the perception of need.

By way of a preliminary illustration, CHAPTER ONE includes a small firm model by Clifton and Tatton-Brown (1979) (see TABLE 1.5), listing the causes of difficulties encountered by small businesses. Here it can be seen that many of the problems effecting the smaller company are outer contextual in origin yet might reasonably be a catalyst for change within the organisation. This in turn may precipitate various training interventions as the company strives to counter adverse factors, formalise new strategies and realise it's changing objectives.

Hence to the methodologies currently employed by organisations in the determination of

training and developmental need. It is apparent from the literature that the performance appraisal is one of the primary mechanisms for contemporary needs analysis. However, various authors have observed that the instrument is routinely used for a number of additional administrative purposes (see especially Long, 1986 - TABLE 4.1) that arguably debate its veracity. Thus, CHAPTER FOUR charts the development of the performance appraisal and discusses the biases and concerns that are perhaps inherent in all procedures that require the supervisor to be both 'judge' and 'helper' (see especially Cascio, 1982 and Hyde and Smith, 1982). It also considers various behaviourally centred procedures and argues a case for the behavioural expectation scale (BES) as a more veritable alternative to conventional processes.

Consequently, one of the more salient research issues emerging from the literature relates to whether or not ideas about appraisal purpose have changed sufficiently since Long's earlier study to dispel or vindicate a new approach. It is accordingly necessary to survey the range of appraisal procedures currently utilised by contemporary organisations and determine the analytical purposes underlying their adoption. Moreover, it is perhaps equally important to assess the extent to which respondent organisations might be receptive to a more radical approach to needs analysis.

The investigative procedure:

It is therefore incumbent that pertaining notions, corollaries and hypotheses be explored via a detailed survey, ideally directed at large organisations occupying different industrial segments. The notional definition of a 'large' organisation is one with a turnover in excess of £20m employing a minimum of 200 personnel; and consequently those listed within the Times Top 1,000 Companies are presumed to meet this criterion.

Thus a positivist approach to data acquisition is prescribed, this being considered best suited to exploring ideas of organisational commonality than the more phenomenological perspective typically gleaned from case-study. Nonetheless, the author is mindful of the excesses of both approaches - the former potentially inducing a sterility that is seen to have problematic consequences for the social sciences (see Shields, 1995) and the latter possibly displacing instinctive enquiry with implausible speculation. It is therefore intended that the survey will produce an empirical platform on which to discuss the identified corollaries, yet also provide the basis for more intuitive investigation in the light of subsequent analysis.

The preliminary stage of the investigation will therefore involve the construction of a questionnaire, compiled around the ideas and hypotheses discussed within this chapter. Whilst its structure may be comparatively comprehensive, it should nonetheless facilitate non-arduous completion by the target group within a reasonably short time frame. Therefore, the propriety of the questionnaire should subsequently be tested via a field trial directed at a representative sample of the intended recipients.

Following a process of refinement in line with the specific observations of the trial respondents, the amended questionnaire will be submitted to a different representative group as a further test of its validity and then mailed to senior managers represented by the Times Top 1,000 and similar high turnover companies.

Survey responses will be analysed via an academically validated statistics package (SPSS release 6.0) and the resultant data examined for commonality across industrial sector, geographic location and cultural disposition.

The principal performance indices and employee competencies will then be identified, along with other items that might perceivably influence need at the individual, task and organisational level. Thus, the components will be distinguished that are arguably central to an effective needs analysis methodology.

Following the conclusion of the empirical analysis, a prototype instrument will be devised and constructed, commensurate with the literature review and survey findings. Where possible the assistance of a representative organisation will be enlisted to provide constructive guidance and afford future opportunity for instrument evaluation. However, it is clearly acknowledged that the intended illustrative mechanism will be the product of the literature review and survey data and no other validation will be inferred by its appendage to this thesis. Equally, it will have no claim to exclusivity other than it might ostensibly satisfy the literature and perceivably fit contemporary conditions of use.

A note concerning the target organisations:

Strong and Robinson (1990) assert that there are profound similarities between organisations, regardless of their particular activities, workforce or clientele. They go on to suggest that the same practical problems seem to occur which may be effectively solutioned by a common set of management methods. This may be perceivably so, and supports the author's notion of commonality that pervades the various discussion points throughout this study. Hence it is presumed that respondents from differing industrial

segments will nevertheless identify similar performance needs and, bearing in mind the small firm analyses by Clifton and Tatton-Brown (1979), Storey (1985), DTI (1991) etc., this conception might possibly relate to most organisations irrespective of size and cultural predisposition. Despite this, the present study advocates a specific focus on 'large' organisations typified by Times Top 1,000 and similar high turnover companies. However, this in no way implies that the proposed diagnostic approach may not be applicable for small organisations. Indeed, it might be of greater relevance to the smaller company, particularly where there is a dearth of training expertise within the executive team. Unfortunately, such companies are frequently unable or unwilling to financially support training and developmental programmes, especially throughout intervals of economic recession. Furthermore, during recessionary periods, larger organisations generally continue to view training as an investment in people, whereas smaller companies sometimes perceive training expenditure as a non-essential overhead. Thus, larger organisations will be selected for the questionnaire in order to minimise survey distortions arising from the effects of economic factors on training issues. It is nonetheless proffered that an appropriate instrument might be of benefit to most organisations in addressing the various methodological inconsistencies that are generally associated with contemporary needs analysis practices (see Herbert and Doverspike, 1990).

QUESTIONNAIRE DEVELOPMENT

Sudman and Bradburn (1984) opine that mailed questionnaires can be powerful tools both in policy formulation and in evaluation if they are used appropriately. They subsequently assert that three factors appear to influence the strength of the response - specifically, the educational level of the target group; the degree to which the questionnaire reflects the professional activities and interests of the recipients; and the ease with which its completion can be incorporated within potentially busy work schedules.

Thus, they produce empirical evidence to suggest that 50-80% of physicians might cooperate in a perceptively relevant survey, as might 81% of accountants, 71-88% of teachers and 65-67% of lawyers; yet a survey directed at lesser educated or older populations will predictably result in an unacceptably poor response for the following reasons:

- a)* Such groups may find the questionnaire hard to read and understand;
- b)* They may be concerned that they will make mistakes and therefore appear foolish to persons reading their submissions;
- c)* They might harbour suspicions regarding the ultimate intention of the study.

However, Dillman (1978) nevertheless posits that mailed questionnaires can be used to survey the general population if their construction is sufficiently short, simple and salient. This would seem to be substantiated by an evident increase in the use of mail procedures, possibly reflecting a nationally higher level of education and a growing familiarity with the mechanics of such techniques.

In the case of the proposed survey, the target group is to be represented by senior training personnel and operations executives within Times Top 1,000 and similar high turnover companies, suggesting an educational standard on a level with the professional respondents discussed by Sudman and Bradburn. Moreover, Sudman and Bradburn hold that recipients of mailed questionnaires who have strong positive or negative feelings about a topic or programme are more likely to respond than recipients who are neutral. Thus, it might appear reasonable to suppose that a carefully structured and specifically targeted questionnaire could achieve a high cooperation rate, assuming that aspects relating to *(a)* sponsor credibility, *(b)* vocational salience, *(c)* questionnaire length and *(d)* question construction are appropriately addressed.

(a) sponsor credibility:

Taking these elements in turn, Baumgartner and Heberlien (1984 p.66) indicate that a belief among respondents in the prestige and credibility of the sponsors appears to enhance survey response rates, with sponsorship from universities or government departments inflating cooperation rates by 6-10% over those achieved by private market research firms. Additionally, survey credibility may be enhanced if covering letters and envelopes are personalised rather than designated for the attention of the (eg) Personnel Director. Dillman (1978) and Yu and Cooper (1983) endorse this view, suggesting that response rates are positively influenced by personalisation, whereas Roberts, McCrory and Forthofer (1978) do not substantiate the positive influence of personalisation practises. Commenting on this conflicting evidence, Baumgartner and Heberlein (1984 p.71) consider it likely that "anonymous procedures and personalisation interact with other factors, such as the type of population surveyed, the topic of the survey, or the sponsor", implying that these factors generally determine the appropriateness of personalisation or anonymity.

(b) salience:

On the basis that salience is taken to mean 'importance to the respondent' (see Foddy (1993), then surveys judged to be highly salient are likely to obtain significantly higher response rates than those that are considered only possibly salient or not salient at all. Heberlein and Baumgartner (1978) demonstrate this, reporting that a *highly salient* survey achieved a 77% response rate; a *possibly salient* survey obtained 66%; whereas a *non salient* survey resulted in only 42% of recipients responding. Salience also appears to influence the accuracy with which an event can be recalled, particularly where the event is (i) unusual, (ii) has a high economic cost or reward, or (iii) has a continuing consequence for the respondent (see Sudman and Bradburn (1982 pp.42-47).

(c) questionnaire length:

In discussing questionnaire length, Erdos and Morgan (1970) consider that six pages, 8.5 x 11 inches, should represent the maximum length and page size. Childers and Ferrell (1979) similarly support the notion that page size is important, reporting that the size of the pages has a significantly negative effect on response rate when questionnaires of 8.5 x 11 inches and 8.5 x 14 inches are compared. However, in testing the effects of one and two page surveys they establish no quantifiable significance, whilst Heberlein and Baumgartner (1978) assert that the length of a questionnaire, measured in terms of the number of pages, the number of items, or the estimated time of completion, shows no

ordered relationship to the final response rate. They also believe that although longer questionnaires might have higher costs to respondents, longer questionnaires may nevertheless signal to the recipients that the study is important and therefore worthy of the additional effort.

Of singular relevance, however, is the study by Hornik (1981), where a cover letter relating to a mailed questionnaire informed recipients that the survey would take twenty minutes to complete and subsequently achieved a response rate of 41.5%. In a replicated mailing, the cover letter notified recipients that the completion time would be forty minutes and correspondingly produced a response rate of 25.5%; whilst a similar control package without any mention of completion time in the cover letter realised 31.5%.

Thus, although the salience or perceived importance of a survey may negate the notional inconvenience of answering it, some indication to the recipient that the questionnaire will not take inordinately long to complete might positively influence the outcome.

Nevertheless, for special interest groups, particularly for professional groups whose members are highly educated or situations in which professional issues are the major concern, then as the topic and the sponsorship increase in salience, so can the questionnaire become longer and still obtain a reasonable number of responses (Sudman and Bradburn, 1984 p.38).

(d) question construction:

Whilst previous discussion has indicated that the educational standard of the intended survey respondents should be comparatively high, Sudman and Bradburn (1984) nevertheless caution against constructing questions that necessitate a great deal of writing when answering. They assert that, although the members of such groups may not feel anxious regarding grammatical accuracy or self-expression, they may possibly be concerned with the time it takes to complete a questionnaire, and therefore open-ended questions that require substantial replies may be perceived as excessively time-consuming. Furthermore, in an earlier work (Sudman and Bradburn, 1982) they identify a form of 'question threat' where the nature of the topic might infer the correctness, desirability, or social/organisational congruence, of answers that differ from the respondent's current orientation. This could similarly impel the recipient to ignore the survey, or alternatively under-report any answer that implies a deviation from a markedly normative response.

Thus, although there appears to be a range of prescriptions for effective questionnaire development, authors seem to be unanimous in advocating the propriety of:

- i) using a judicious mix of open and closed questions to establish both

fine shades of attitude and focused opinion

- ii) remaining aware of the strengths of both question types, principally:
open questions which enable respondents to express themselves in their own words, and intimate level of knowledge, degree of salience, and strength of feeling
closed questions which encourage respondents to answer in a manner that can be meaningfully compared, producing less variable answers that are easier to compute and analyse
- iii) remaining aware of the weaknesses of both question types, principally:
open questions which can result in unsatisfactory or obscure answers that are difficult to accurately interpret or code
closed questions which can evoke distorted or central tendency answers particularly when rating scales are employed
- iv) omitting funnel questions, where a respondent's answer may be unduly influenced by previous answers, or otherwise provide conspicuous clues to the anticipated or favoured response
- v) avoiding the use of branching, or similar question skipping practices which may introduce confusion into the process
- vi) ensuring that questions are not biased, by balancing response options
- vii) minimising misunderstanding, by setting questions in context, informing respondents of the purpose and specifying the perspective that should be adopted when answering
- viii) clearly defining the topic in terms of its dimension.

Whilst every one of the above points may be intrinsically important in promoting survey accuracy, it is the final point that is perhaps singularly essential in promoting meaningful responses. Foddy (1993) demonstrates its significance when citing the following three questions from a 1945 Gallup Poll:

Q1. Do you think the government should give money to workers who are unemployed for a length of time until they can find another job?

YES	63%	NO	32%	DONT KNOW	5%
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Q2. It has been proposed that unemployed workers with dependants should be given up to \$25 per week by the government for as many as twenty-six weeks during one year while they are out of work and looking for a job. Do you favour or oppose this plan?

YES	46%	NO	42%	DONT KNOW	12%
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Q3. *Would you be willing to pay higher taxes to give unemployed persons up to \$25 a week for twenty-six weeks if they fail to find satisfactory jobs?*

YES	34%	NO	54%	DONT KNOW	12%
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This challenge to pertinent question construction is admirably reflected by Freed (1964) who asserts that ".....general and vague questions are usually indicative of a lack of clarity on the part of the writer, bewilder the reader and produce unreliable results(whereas)..... a clear and pointed question elicits an effective and relevant response".

A framework for questionnaire construction:

In previous chapters, the author has endeavoured to identify various issues that are considered relevant to the study, prerequisite to establishing the project corollaries and devising the framework for the questionnaire.

For example, it has been suggested that training needs may have a geographic dimension resulting perhaps from social divisions of labour and the regional intensification of similar industries. Hence, the first group of questions will be concerned with identifying the types of industry or service in which the respondents are employed and the geographic location in which they are based. Additionally, because 'parent' organisations may be exerting further influence on established organisational values this group of questions will also attempt to establish *i)* whether or not each respondent organisation has a parent, *ii)* the principal business activity of the parent and *iii)* the parent's country of origin.

This leads into the second group of questions which will be concerned with establishing the cultural features which are currently important to the respondent's organisation with regard to both its current and future success.

A selection of 'closed' options will be offered such as *(a)* market responsive, *(b)* innovative, *(c)* results and goal orientated, *(d)* scientifically and technologically orientated, *(e)* quality centred, *(f)* customer focused, *(g)* employee centred, *(h)* community involved, etc; and opinions sought as to whether respondent organisations value similar cultural features as their parents.

The third group of questions will examine the forces that are inducing corporate change, to understand how the national economy, changing markets, foreign competition, political pressure, technological change, etc., may be influencing hierarchical structures and sustaining or modifying established organisational values. Thus, change may emanate from various market, political or economic conditions, etc., or from numerous regulatory,

technological or resource related factors. Alternatively, the seeds of change may be propagated organically from stakeholder interaction (eg., employees, management, unions, shareholders) or as the result of new senior executive involvement. Of complimentary interest is the degree that such change may be affecting the employment conditions of secretarial and administrative support staff, both in terms of their accepted task roles and in the presentation of greater or lesser career opportunities.

The fourth group of questions will focus on the foundation skills typically required for NVQ Level 1 - Business Administration, such as oral and written communications, numeracy, interpersonal competence and the application of new office technology. It will attempt to establish the degree of satisfaction or dissatisfaction with which respondent organisations view the capabilities of their administrative staff, perhaps revealing strengths and weaknesses in these disciplines that might be arising from shifts in educational or developmental emphasis.

This will subsequently direct the enquiry towards the task roles of administrative support staff. Thus the fifth group of questions will contrast their historic, current and potential areas of responsibility and seek to establish the degree to which task role transition is *a)* proactive rather than reactive and *b)* supported by appropriate training and developmental programmes. Related questions will examine whether there is an apparent convergence in the task roles of administrative staff and management, and determine to what extent support personnel are becoming involved in paraprofessional activities that

- (i) result from progressive *horizontal* job enlargement,
- (ii) have been expressly created as part of a *vertical* job enrichment strategy, or
- (iii) were previously the domain of functional specialists.

Thus, the questionnaire will be seeking specific information regarding the direction of task role transition and attempt to establish the various competencies and technical disciplines that are important to individuals, their evolving tasks and the organisations in which they work. This should also provide a realistic measure of organisational commitment to associated training and possibly determine whether the attainment of new proficiencies might extend the perceived limits of administrative support staff development.

Therefore, the author suggests that the questions within this group should be correspondingly concerned with relating desired or essential competencies to task role transition, thereby establishing whether such skills are:

- (a) relevant to conventional task roles;

these might include proficiencies concerned with comprehension, literacy, keyboard dexterity, word-processing, information storage, data retrieval, information monitoring, office communications and numeracy

- (b) necessary in order to support horizontal job enlargement schemes;
these might involve more advanced text processing capabilities, incorporating spread-sheets, graphics, desk-top publishing, etc., and perhaps aspects of finance, personnel, law, marketing, distribution
- (c) desirable for effective vertical job enrichment programmes;
these may be similar competencies to those illustrated above, but possibly less task specific, more geared towards departmental overview, and probably encompassing elements of supervision and quality control
- (d) essential for every one of these states:
proficiencies concerned with comprehension, literacy, communications, numeracy, etc., that are likely to be fundamental to the task roles of all administrative support staff, irrespective of the state of job transition

Of special interest to the study will be the possible establishment of various proficiencies that are commonly associated with each state of role transition and are independent of the industrial sectors to which respondent organisations belong. If the need for such proficiencies is indeed found to be generally global, it will conditionally endorse the notion of a diagnostic needs analysis instrument that might be generally applicable across all sectors of commerce and industry. Moreover, it will reveal the range of training topics relevant to the proposed BES methodology.

The next group of questions were to be concerned with identifying the traits and attributes that respondent organisations appear to universally value in their secretarial and administrative support staff, but there are sufficient data available from the literature to dispense with this section. This is fortuitous, insofar as its inclusion perceivably results in an overlong questionnaire, perhaps adversely affecting the final survey response rate (see Erdos and Morgan, 1970). However, the attributes most highly regarded in secretarial and administrative support staff with conventional job responsibilities might be totally different from those perceived to be important to administrative assistants who are increasingly involved in paraprofessional activities and/or assuming greater degrees of managerial authority.

This is illustrated in the following analysis of the 'attributes rated most highly in a secretary' by their managers, extracted from a report by Hepburn (1991):

TABLE 6.1:

Hepburn (1991)

Attributes Rated Most Highly in a Secretary:

Initiative	25.5 %
Accuracy	24.8 %
Confidentiality	22.7 %
Flexibility	9.2 %
Knowledge	7.1 %
Confidence	6.4 %
Tact	3.4 %
Humour	1.8 %
Assertiveness	0.0 %
N	326

Thus, it is supposed that attributes such as 'knowledge' and 'confidence' could assume increasing importance as support staff become involved in paraprofessional activities, and attributes such as 'flexibility', 'tact' and 'assertiveness' as they undertake the supervisory aspects of vertical role integration.

However, a similar report, but relating to 'employers selection criteria' within small firms (see Atkinson and Storey, 1994), reveals a whole new set of adjectives, including or implying such terms as 'able', 'hardworking', 'reliable', 'motivated', 'cooperative', 'polite', 'experienced', 'smart', 'intelligent', 'flexible', 'honest', 'stable'. Furthermore, studies by Whyte (1963), Porter (1963), and Jamieson (1980) not only endorse the correlation between culture and desired behavioural traits, they also propose that individuals are becoming increasingly 'other directed' rather than 'inner directed', that is, the approval of others is becoming more important than the pursuit of individual selfish goals.

This is demonstrated in the following comparative analysis by Jamieson of the 'traits thought necessary for success in business' and based on the ten definitions prescribed by Whyte and Porter. Interestingly, managers both sides of the Atlantic ranked the characteristics almost identically in terms of their relative value:

TABLE 6.2:

Mean Rank Order of Traits Thought Necessary for Success in Business:

	US MANAGERS	GB MANAGERS
<i>Inner-directed</i>		
Forcefulness	5	7
Imagination	3	6
Independence	9	9
Self-confidence	2	2
Decisiveness	1	1
<i>Other-directed</i>		
Tactfulness	6	4
Agreeableness	8	8
Cautiousness	10	10
Adaptability	4	3
Cooperativeness	7	5
N	145	78

From 'Capitalism and culture: a comparative analysis of British and American manufacturing organisations' Jamieson I (1980) Hampshire - Gower Publishing Company Limited

Nevertheless, bearing in mind the breadth of trait descriptors that have been drawn from the various analyses, it is felt that the literature provides sufficient data to facilitate the distinction of preferred trait descriptors without recourse to further survey questions. Thus, from existing literature, trait preferences for each of the three states of task role transition can be extrapolated, whether the role is (i) essentially a static support function, (ii) subject to horizontal job enlargement, or (iii) undergoing vertical role integration. Hence, the proposed diagnostic instrument will incorporate:

- i) interpersonal and attitudinal qualities that are generally considered by organisations to contribute to cultural well-being and commercial success;

This must nonetheless be mindful of the cautions expressed by Gordon (1985) and Kotter and Heskett (1992), the former supporting the possible commonality of such characteristics - albeit discerned from a narrow range of organisations and the latter questioning the existence of universally applicable culture

- ii) task-related competencies, interpersonal skills and attitudinal qualities that are considered important for:
 - a) elementary or typically prescribed administrative support tasks
 - b) paraprofessional functions encountered through job enlargement

- c) supervisory and monitorial activities associated with vertical role integration
- iii) non task-related proficiencies, interpersonal skills and attitudinal qualities considered important for the development of individual support staff, both:
 - a) inside of the respondent's own organisation, and
 - b) within other organisations

Here it is interesting to note that in Hepburn's survey, 50% of consulted secretaries appear content to progress within the boundaries of their current administrative role, whilst a further 36% wish to move into other occupations. However, her analysis orientates around stereotypical support activities and is perceivably oblivious to the role stretching paraprofessional opportunities suggested by horizontal job enlargement and vertical role integration.

Regional dimensions and parochial bias:

Essentially, though, it should be recognised that a regional dimension to the perceived value of attributes and competencies might possibly exist, emphasised by the social division of labour and the white collar/blue collar dichotomy (see Green, 1985). This may perhaps be illustrated by reflecting on the Northerner's traditional admiration for 'bluntness', which may pass for candour and straight talking in a Northern culture yet may be considered abrasive and insensitive in a Southern one. Similarly, assertive behaviour within a manufacturing environment could be construed as aggressive in a service orientated atmosphere. Therefore, attention will be paid to the possibility that a regional intensification of homogenous industries could contribute to such a phenomenon, perhaps introducing a parochial bias into the survey.

In heeding this, and other cautions discussed earlier, and focusing questions in the manner proposed, it is anticipated that the resultant source material will be sufficiently comprehensive to identify training and developmental needs at the three levels of analysis advocated by McGehee and Thayer (1961) and illustrated in DIAGRAM 5.1. Similarly, by directing the enquiry at the various transitional states of the administrative support function, it is suggested that the eventual BES instrument will be reciprocally perceptive to the incremental or radical changes facing individual clerical staff, their task roles, and their organisations.

Reviewing purpose, resources, methodology, and survey objectives:

However, having explored the more salient aspects of survey design, it will be necessary to shape the questions within a format suited to the intended recipients and undertake a pilot survey to identify any ambiguities. Prior to this, however, it is perhaps expedient to review some of the preceding stages of survey design, and Cook (1981) presents a procedural approach to this in an introductory guide, advising the following sequence of operations:

Purpose of the survey

Having read relevant literature and documented the specific area of study, it is suggested that the purpose of the survey be defined, thereby clearly establishing its primary objective. This has been discussed at some length in previous chapters and is concerned with:

- ◆ establishing areas and degrees of commonality regarding the cultural preferences of organisations
- ◆ exploring the relationship, if any, between cultural features and organisational change
- ◆ examining the extent of organisational change and its influence on the task roles of secretarial and administrative support staff
- ◆ determining the skills and competencies required or desired by organisations in order to support organisational change
- ◆ determining the skills and competencies required or desired by administrative support staff in order to support their transitional task roles whilst equipping them to fulfil their individual aspirations
- ◆ establishing the relative importance of the methodologies employed in determining training and developmental needs
- ◆ identifying the components for a diagnostic TNA instrument
- ◆ assessing the potential requirement for such an instrument

Resources

The next consideration relates to the resources that will be available to support the survey. From the 1995 FAME database (Financial Analysis Made Easy - CDROM), executive directors and senior managers from 4,000 of the UK's highest turnover companies will be identified and their details stored on a Microsoft Access database running under Microsoft Windows NT4.0. The associated hardware will consist of a Gateway P5-200 microcomputer - to store the source records and analyse data; and a

Hewlett Packard LaserJet 4Si printer - to generate the questionnaires and print personalised cover letters. Survey results will subsequently be evaluated and interpreted via the SPSS statistical program release 6.0, bolstered by the Microsoft Excel spreadsheet where necessary. Printed self-addressed envelopes will be provided and a FREEPOST system instigated to accommodate return postage.

Survey population

Initially, the questionnaire was to be directed at (a) the senior personnel or training executive and (b) an hourly paid or junior salaried secretary from each of the Times Top 1,000 and similar high turnover companies. However, subsequent conversations with a cross-section of human resource personnel began to implant a measure of unease regarding the propriety of favouring this specific population over other executive grades. Thus, although a higher degree of salience may be assumed in relation to this management catchment, a professional inclination towards individual and task related issues might bias the emphasis, thereby possibly resulting in a slightly unbalanced view of needs at the organisational level of analysis.

It is therefore envisaged that a random mix of executive directors from 1,000 of the UK's highest turnover companies should provide the required perspective, furthered by the opinions of a 'representative' member of the attendant staff personally selected by the incumbent director or manager.

Survey location

This will be arbitrarily determined by the geographical situation of respective target companies. Where an organisation is widespread, the functional location that appears to exemplify its core business will be approached; whilst in the case of a multi-disciplined company, each distinctive operating site may be targeted. The survey will, however, be restricted to mainland Britain.

Data analysis

Cook (1981) propounds the benefits of computer tabulation, but cautions against excessive analysis without true regard to exact purpose. She furthermore recommends the use of subprogrammes designed primarily for the interpretation of social science data, such as the Statistical Package for Social Scientists (SPSS). This seemingly endorses the author's choice of SPSS release 6.0 to facilitate the storage, sorting and coding of the source data and to undertake much of the routine numerical analysis.

Reviewing the specific objective of the study

Thus, it is surmised that respondent data will identify any commonality of needs at each

of the three levels of analysis, and provide the skill and behavioural components for the proposed needs analysis instrument. This information should similarly assist in the concise identification of desired performance dimensions, thereby facilitating the construction of Behavioural Expectation Scales that might accurately diagnose the transitional training and developmental needs of administrative support staff.

Designing and piloting the questionnaire:

Having explored the relevant aspects of survey design, the questions were developed and organised in the manner proposed earlier within this chapter. During the crafting of the survey, much advice was sought from the academic staff of Plymouth University in order to ensure that each question was correctly focused, unambiguous and free of jargon.

The resultant questionnaire was subsequently published in the form of two draft documents; the first targeted at senior managers and comprising of 43 questions covering 11 sides of A4 paper; and the second directed at a member of their administrative support staff and comprising of 8 questions on 4 sides of A4.

In the initial pilot test, four senior managers and directors of major organisations within the South West of England were asked if they and their respective secretaries would complete the survey under observation, in order that the author might gauge initial reactions, identify any problems, establish the average completion time and seek advice on improving the content. The companies approached were British Aerospace, South West Water, The Wrigley Co., and Becton Dickenson.

In essence, the managers test survey was relatively free of comment.

One individual proposed terminology changes to several of the questions whilst two of the respondents felt the four point Likert format to be somewhat forcing (ie., driving their choice of answers in a direction away from a preferred midscale selection). They therefore suggested that a five point instrument with a median 'neither/nor' position might be more appropriate for many of the questions. This observation was discussed at length with University staff and business acquaintances and a five point Likert scale subsequently adopted to notionally facilitate a higher degree of survey precision.

However, the secretaries test survey revealed two further concerns that might significantly influence survey integrity and response rate:

The first related to a comment by two of the secretaries that they might be reluctant to complete the survey had they been employed in a junior administrative position or were

feeling less secure in their current jobs. This anxiety seemed to emanate from a notion that questions and answers examining long-term career aspirations might fall under the scrutiny of immediate superiors.

The second was an initial hesitation on the part of the secretaries to immediately complete the survey, perhaps indicating that the questionnaire might at first appear unduly complex and therefore take longer to complete than the prescribed ten minutes.

It was therefore decided to reshape questions relating to career aspirations such that they addressed horizontal and vertical role issues in a manner that would not engender third-party misinterpretation.

Example question:

Which of the following matches your long-term career objectives?

- ☐ Continue in your present administrative position, or in a similar role within this company or another
- ☐ Develop your present administrative role to achieve senior secretarial or clerical status within this company or another
- ☐ Become progressively involved in professional activities such as finance, personnel, marketing, etc
- ☐ Become progressively involved in supervisory or managerial activities
- ☐ Other (please specify)

This question was subsequently revised as follows:

Which one of the following **most closely** matches your long-term career aspirations?

- ☐ Continue at the same level in your present position, or in a similar role
- ☐ Develop your present role with a view to achieving more senior status and influence
- ☐ Enlarge your role to encompass other specialist activities such as personnel, finance, etc
- ☐ Extend your role to increase supervisory or managerial responsibilities

Furthermore, questions that previously requested respondents to rank various skills and attributes in ascending order of importance were substituted for five point Likert scales asking secretaries to rate each dimension in terms of its relative unimportance or importance. Thus the final format for such scales was typically;

VERY UNIMPORTANT	QUITE UNIMPORTANT	NEITHER IMPORTANT NOR UNIMPORTANT	QUITE IMPORTANT	VERY IMPORTANT
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

with progressive degrees of measure commonly represented by;

NOT AT ALL	MINOR DEGREE	MODERATE DEGREE	MARKED DEGREE	CONSIDERABLE DEGREE
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In addition, a number of questions were beneficially consolidated, reducing the size of the survey to 30 questions occupying 9 sides of A4 paper for the senior managers; and 7 questions covering 4 sides of A4 for the secretaries.

This was subsequently published and despatched as a pilot mailing to 20 named executives randomly selected from the compiled database of high turnover companies.

An unexpected problem concerning scoring accuracy:

At about the same time that the pilot survey was despatched, the author's company was commissioned by HM Prison Service to undertake a nationwide analysis focusing on the training and developmental needs of Governors' secretaries. By chance, the pilot questionnaire seemingly addressed all of the issues necessary to produce an appropriate training strategy for the Prison Service and it was therefore felt that the existing survey instrument could be effectively utilised with minimal changes of content. This provided an ideal opportunity to extend the pilot - particularly as Governors and their secretaries had an implied obligation to respond to the survey, theoretically ensuring a relatively high response rate.

Simultaneously, the initial pilot of 20 pairs of questionnaires resulted in a 15% return, somewhat lower than anticipated but nevertheless disclosing no obvious problems with the adopted format. Essentially, recipients remarks were extremely positive and encouraging, with only 2 of the questions prompting comments and/or queries regarding specific choices of terminology.

Meanwhile, the Prison Service survey produced a predictably high return and out of a

total mailing of 138 pairs of questionnaires 61 were returned completed, representing a response rate of 44%. As before, comments were in the main favourable, whilst the few adverse remarks tended to be directed at perceived motives behind the survey (eg., "....we don't see why this sort of thing is necessary....") rather than direct criticisms of the format or content. However, upon careful analysis of the returns a major problem became apparent, which appeared to have wider implications not only for the integrity of the author's survey, but possibly for any other questionnaire that utilises similar Likert scales.

In essence, a total of 17 Governors (ie., 27.9% of respondent Governors) and 9 secretaries (ie., 14.8% of respondent secretaries) appeared to have inadvertently transposed the headings VERY UNIMPORTANT and VERY IMPORTANT, thereby incorrectly rating one or more of the survey questions.

Thus, in nearly 30% of cases the first five point Likert scale encountered by the Governors (see question 4. reproduced below) was scored towards the extreme left of the scale when the converse was reasonably expected. In 9 instances the respective Governors realised their error during the course of completing question 4. and amended their responses accordingly; yet 7 Governors did not detect their mistake until somewhat later in the survey. However, one individual transposed the VERY UNIMPORTANT and VERY IMPORTANT headings throughout the whole document despite the fact that column headings were restated for each and every question, eg:

Q4. How unimportant or important to the Prison Service are each of the following cultural values?

		VERY UNIMPORTANT	QUITE UNIMPORTANT	NEITHER UNIMPORTANT NOR IMPORTANT	QUITE IMPORTANT	VERY IMPORTANT
4.01	Demand responsive	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.02	Innovative	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.03	Results and goal orientated	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.04	Technologically orientated	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.05	Quality centred	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.06	Employee centred	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.07	Customer focused	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.08	Community centred	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.09	Other.....	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

With regard to the secretaries, 7 of the respondents realised their error whilst completing their first Likert question, and a further 2 erroneously completed several more questions before detecting and rectifying their mistake.

Nevertheless, had this particular phenomenon been an isolated occurrence it might well have been discounted as a typical rating slip, but as it had been replicated by a significant

proportion of both target groups, further investigation was considered essential.

A summary enquiry:

A methodical review of the initial pilot returns from the Managers' survey showed one instance where a respondent had erroneously scored a question towards the extreme left of the scale. Fortunately, the Manager had indicated that she would be prepared to assist further in the analysis and was therefore contacted with a view to determining whether or not the scoring was in error and, if so, the possible reasons for the error. As surmised, the respondent had indeed incorrectly rated the question, but was extremely surprised that she had actually done so and could offer no cause other than momentary carelessness.

However, when the Prison Governors were questioned about their respective errors they consistently attributed the possible cause to a Civil Service survey convention, in which important or positive descriptors are typically placed towards the left of the scale and unimportant or negative descriptors to the right. They consequently had a tendency to pre-empt the composition of initial questions, often not realising their mistake until a change of topic or format prompted them to thoroughly read the script.

Also, upon further enquiry it would seem that the problem may have been compounded by the author's desire to exclude any hint of bias in the framing of the questions. Thus, questions phrased in terms of "HOW UNIMPORTANT OR IMPORTANT" might have appeared optically deceptive to a cursory glance, thereby precipitating a literal transposition of the descriptors.

Due to the limited nature of the study, it is imprudent to draw conclusions other than raise a general question mark over the *absolute* integrity of Likert type scales that adopt the phrases and descriptors widely recommended in the literature. Hence, descriptors that utilise prefixes such as '*un*' or '*in*' to portray opposites (eg., "HOW UNTRUE OR TRUE" or "HOW INFLEXIBLE OR FLEXIBLE") may arguably contribute to the rating error described above, particularly if the order of rating differs from that normally encountered by the recipient of the survey. Moreover, once the recipient realises his or her error, he or she may feel foolish for making such a simple mistake and therefore not wish to submit a document bearing evidence of such basic carelessness.

To a degree, the legitimacy of this point is supported in the returns made by Prison Governors and their secretaries, where a substantial number of misplaced ratings were either disguised (Tipp-Ex corrector) or emphasised with a flippant comment. It is

therefore suggested that where recipients create simple errors on surveys that they are under no obligation to return, their natural inclination may be to discard the questionnaire, thereby negating feelings of foolishness and misplaced notions of ridicule. The cause and effect of such anxieties might consequently have a significant effect on survey response rates and may be worthy of further investigation.

The second pilot:

Thus, with due regard to the Managers pilot and the Governors survey, the questionnaire was revised to reflect the scale orientation typically employed by governmental bodies and simplify some of the narratives and descriptors that might contribute to the aforementioned rating error.

For example, question 4. was amended as follows:

Q4. How important to your company's **present** success are each of the following cultural features?

	VERY IMPORTANT	QUITE IMPORTANT	NEITHER UNIMPORTANT NOR IMPORTANT	QUITE UNIMPORTANT	VERY UNIMPORTANT
4.01 Market responsive etc.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section headings were also introduced, thereby clearly annotating specific groups of questions and visually improving the layout.

The eventual document was finally circulated amongst academic staff and business acquaintances and, having incorporated their suggested changes and inclusions, a further pilot of 50 mailings organised as a precursor to the actual survey. This pilot, targeted at Directors, Senior Managers and their respective Secretaries, was thus intended to expose any problems that could have been inadvertently introduced during the various revisions and assist in the formulation of realistic response expectations for the intended survey.

The subsequent return of 6 completed questionnaires (ie., 12%) was in line with the response level from the previous pilot suggesting that, for the proposed population, a response rate greater than 15% was unlikely. However, in various discussions with business colleagues a rationale emerged for the comparatively low return rate inasmuch as the very senior functional level of the principal recipients could potentially restrict their time or inclination to complete the survey. Furthermore, if the Senior Manager failed to complete the questionnaire it would be highly improbable that the Secretary would complete and return her section in isolation.

It was therefore decided to split the survey into two discrete mailings:

The first survey (see APPENDIX 1) was sent during October 1995 to 1,000 named Directors and Senior Managers identified from 4,000 organisations comprising the Times Top 1000 and similar high turnover UK companies. Their details were extracted from the 1995 FAME database (Financial Analysis Made Easy) and selected on the basis of turnover ascendency and completeness of mailing address. Thus, those companies whose details were incomplete were discounted, as were all holding companies that appeared to be administrative shells with nominal commercial activity.

The second survey (see APPENDIX 2) was sent during August 1996 to 1,000 Secretaries selected from the 7,000 who had registered their attendance at the London Secretary Show held at the Barbican during April 1996. Their names were extracted in alphabetical order where full company details were registered and excluded where private addresses were substituted or where duplicates of company details were readily apparent.

In all cases, the covering letter that accompanied each questionnaire was personalised with the recipient's name and job title and printed on University of Plymouth letterhead to promote academic credibility. A pre-printed FREEPOST envelope was also included in the package to minimise inconvenience.

PROFILE OF TIMES TOP 1,000 ORGANISATIONS

Empirical data for the study originates from two discrete surveys - the first focusing on the perceptions of Senior Managers and distributed, collated and analysed 1995/6; and the second targeted at Secretaries and similarly processed 1996/7. The resultant data is analysed using the Statistical Package for the Social Sciences (SPSS) release 6.0.

The findings relating to each survey are initially examined independently of each other, then a comparative analysis subsequently undertaken in order to:

- i)* contrast, where appropriate, the opinions of the two populations
- ii)* establish similarities and differences in the perception of need
- iii)* develop discussion that might account for such similarities and differences
- iv)* propose initiatives that might address the needs of both groups within the constructs of the individual, the task and the organisation.

Thus, findings from the data are reported in four consecutive chapters commencing with the present chapter which draws a profile of respondent organisations, examining parental, sectoral, regional and cultural influences and their possible linking to organisational characteristics and preferences. CHAPTER EIGHT examines managers' perceptions of secretarial task roles, charting the cause and extent of organisational movement towards horizontal job enlargement (HJE) and vertical role integration (VRI). CHAPTER NINE identifies the competencies required for conventional job roles, HJE and VRI, exploring these from both managers' and secretaries' view-point; whilst CHAPTER TEN reveals secretaries' perceptions of their career opportunities preceding a discussion on the differences between the two perspectives. All pertinent tables are included within the body of the text, as are all scree plots and factor analyses that relate to points of discussion.

Where applicable, a standard industrial classification system is employed to facilitate the differentiation of data by industrial sector and thereby help resolve such issues as:

- a)* whether an organisation's preference for certain cultural attributes might perhaps be related to the industrial sector that it occupies
- b)* the degree to which the various types of change experienced by an organisation might similarly be related to its industrial sector

- c) whether developmental opportunities for administrative support staff differ perceptibly from sector to sector.

Nevertheless, the majority of questions comprising the survey are five-point Likert scales with intervals held to be of essentially equal proportions. Here, the difference between (eg) '5 very unimportant' and '4 quite unimportant' is intuitively similar to that between '2 quite important' and '1 very important'. Thus, the ambivalent 'neither/nor' position is scale '3', with scores of less than this expressing degrees of importance, and greater than this implying measures of unimportance.

Where correlations between datasets are explored, the Spearman nonparametric version of the Pearson correlation coefficient is adopted as being most appropriate for interval data based on a ranking system. Thus, correlations are held to be significant where $p < .05$, with strength of correlation considered 'fair' at $r = (+/-)0.25 - 0.49$; 'moderate' to 'good' at $(+/-)0.50 - 0.74$; and 'very good' to 'excellent' where r exceeds $(+/-)0.75$ (Fink, 1995).

In instances where inter-group items are selected for comparison (eg., to contrast their arithmetic means), Cronbach's alpha reliability coefficients are computed to ensure appropriate commonality. Thus, internal reliability is held to be most satisfactory when the standardized alpha coefficient is around 0.7 (see Guildford, 1956) and this figure is accordingly adopted as indicative of a sufficient degree of internal consistency to permit statistical comparison.

Nevertheless, where latent or underlying variables are thought to link such intra-group items, factor analysis is selectively used to augment discussion on related topics.

However, the author appreciates the controversial and somewhat speculative nature of the process, and is mindful of the views of Cureton and D'Agostino (1983) who posit that "The factors are actually hypothetical or explanatory constructs". They go on to say that "At the conclusion of a factor analysis we can only say of the factors that if they were real, then they would account for the correlations found in the samples". Freedman (1987) meanwhile, takes a stronger line, stating that "Despite their popularity *he* does not believe that they have in fact created much new understanding of the phenomena they are intended to illuminate. On the whole, they may divert attention from the real issues, by purporting to do what cannot be done - given the limits of our knowledge of the underlying processes". With these cautions in mind, any interpretations of factor analyses are proposed mainly to illustrate the notion that datasets may share latent variables that are not easily identified and to subsequently support arguments as to why such components might be beneficially linked and/or collectively considered.

Response profile and characteristics of sample:

The questionnaire was compiled in accordance with the format discussed in the previous chapter and 1,000 copies, replete with personalised letters, mailed to Directors and Senior Managers whose organisations exhibited the appropriate characteristics. By the cut-off date 134 (13.4%) had responded but, of the questionnaires returned, 22 had been inadequately completed to the extent that they negated meaningful analysis and were consequently disregarded.

The reasons for such omissions remain open to speculation, but may have been caused either by several pages of the questionnaire being turned together, or perhaps as a result of respondents deferring the completion of various survey questions and subsequently forgetting to return to them. Arguably, these omissions may well be indicative of the general level of salience for the target population (see discussion on salience in previous chapter) and will therefore be explored in greater detail later in the analysis.

Nonetheless, the usable response rates for the Managers' survey was 11.2% and from this data the following profile of respondent organisations is compiled:

TABLE 7.1: Principal Business Activity					
<i>Standard Industrial Classification</i>		<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Agriculture, Forestry & Fishing	1	0	0	0	0
Mining & Chemical Processing	2	4	3.6	3.6	3.6
Construction & Civil Engineering	3	13	11.6	11.6	15.2
Metal Goods, Engineering & Vehicles	4	7	6.3	6.3	21.4
Electrical, Electronics & Aerospace	5	9	8.0	8.0	29.5
Other Manufacturing Industries	6	23	20.5	20.5	50.0
Transport, Communications, Utilities	7	12	10.7	10.7	60.7
Wholesale & Petroleum Products	8	6	5.4	5.4	66.1
Retail, Restaurant & Drinks Trade	9	13	11.6	11.6	77.7
Finance, Insurance & Real Estate	10	11	9.8	9.8	87.5
Business Services & Hotels	11	9	8.0	8.0	95.5
Health, Education & Social Services	12	2	1.8	1.8	97.3
Public Admin., Law & Armed Services	13	3	2.7	2.7	100
		-----	-----	-----	
Total		112	100	100	

All industrial sectors are represented with the exception of 'agriculture, forestry and fishing' where the Managers' survey failed to produce a respondent. However, this is not unexpected considering that this sector accounts for only 2.2% of total UK employment

whereas manufacturing industries collectively account for 27.9% (see TABLE 1.1).

In a similar vein, the fact that 48.2% of respondent Managers are clustered around London and the South East of England is arguably unavoidable inasmuch as 54% of Times Top 1,000 companies have a major presence in the London region:

TABLE 7.2:		Geographic Location			
<i>Respondent's Location</i>			<i>Valid</i>	<i>Cum</i>	
	<i>Frequency</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	
Scotland	1	8	7.1	7.1	
Northern Ireland	2	2	1.8	8.9	
Wales	3	4	3.6	12.5	
North East England	4	8	7.1	19.6	
North West	5	7	6.3	25.9	
Midlands	6	16	14.3	40.2	
East Anglia	7	6	5.4	45.5	
South East	8	24	21.4	67.0	
London	9	30	26.8	93.8	
South West	10	7	6.3	100	
	-----	-----	-----		
Total		112	100	100	

Nonetheless, of the 112 respondents, 42% identified the principal business activity of a parent, presenting a sectoral spread not unlike their sibling organisations:

TABLE 7.3:		Parent Business Activity			
<i>Standard Industrial Classification</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>	
Agriculture, Forestry & Fishing	1	1	0.9	2.1	
Mining & Chemical Processing	2	3	2.7	8.5	
Construction & Civil Engineering	3	5	4.5	19.1	
Metal Goods, Engineering & Vehicles	4	3	2.7	25.5	
Electrical, Electronics & Aerospace	5	6	5.4	38.3	
Other Manufacturing Industries	6	10	8.9	59.6	
Transport, Communications, Utilities	7	4	3.6	68.1	
Wholesale & Petroleum Products	8	4	3.6	76.6	
Retail, Restaurant & Drinks Trade	9	3	2.7	83.0	
Finance, Insurance & Real Estate	10	3	2.7	89.4	
Business Services & Hotels	11	5	4.5	100	
.	65	58.0	Missing		
	-----	-----	-----		
Total		112	100	100	

129

However, it is readily apparent that a significant number of respondent Managers neglected to indicate the business activity of their parent organisation and subsequently owned to having a parent only when specifically requested to identify the parents' geographic location. Thus, it transpires that 70.5% of respondent companies have a parent organisation, the geographic spread of their countries of origin being as follows:

TABLE 7.4: Geographic Origin of Parent Company					
<i>Parent's Location</i>		<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
United Kingdom	1	34	30.4	43.0	43.0
Europe	2	27	24.1	34.2	77.2
Asia	3	4	3.6	5.1	82.3
Africa	4	0	0	0	82.3
North America	5	8	7.1	10.1	92.4
South America	6	1	0.9	1.3	93.7
Australia & New Zealand	7	4	3.6	5.1	98.7
Unspecified		1	0.9	1.3	100
	.	33	29.5	Missing	
		-----	-----	-----	
Total		112	100	100	

Cultural features and the influence of sector, parent and geographic location:

The potential importance of organisational culture has been suggested many times throughout the body of this thesis insofar as various cultural features combine to express the personality (or desired personality) of the organisation. Thus, analysis of the importance that each organisation places on such dimensions might reveal a 'best fit' combination of desired cultural characteristics which may or may not be sectorally or geographically influenced. Also, the subsequent ranking of these cultural features might, in turn, assist in the prioritisation of training and developmental initiatives, given that each may subsume a training implication (eg., customer care, quality awareness, principles of marketing, information technology, etc.).

However, before examining cultural features in greater detail, certain inferences may be gleaned from the survey data to perhaps facilitate a greater understanding of the nature of cultural influence. Hence, when examining the degree of importance that different organisations place on such cultural features as customer focused, market responsive, quality centred, etc., it is perhaps feasible to construct three hypotheses regarding their adoption:

Firstly, that the relative importance of certain cultural features varies according to the industrial sector which the organisation occupies;

Secondly, that the relative importance of such varies according to geographic location (see especially Howells and Green's (1988) treatise on the white collar/blue collar dichotomy and the 'North-South Divide');

Thirdly, that the relative importance of certain cultural features is mainly promoted through parental interaction.

Thus it is initially intended to investigate whether the cultural orientation of organisations might be influenced by the industrial sector that they occupy; their own or their parents geographic origin; or shaped via parental interaction.

The influence of sector, parent interaction and geographic location on cultural orientation

The cultural orientation of particular relevance to this study comprises those features that help locate the organisation in its inner and outer context and/or translate into indices of effectiveness that typically express organisational health and corporate success, ie.,

- | | |
|-----------------------------------|------------------------------------|
| Q04.01 market responsive; | Q04.02 innovative; |
| Q04.03 results & goal orientated; | Q04.04 technologically orientated; |
| Q04.05 quality centred; | Q04.06 employee centred; |
| Q04.07 customer focused; | Q04.08 community centred. |

Managers are therefore asked to assess the importance to their organisations of each of these orientations in a series of five point Likert rating scales ranging from very important to very unimportant. The resultant analysis (TABULATION 1) is appended to this thesis and shows the perceived importance of each orientation crosstabulated with the standard industrial classifications of all respondents organisations (refer to TABLE 7.1). Thus it can be seen that, in all but two instances, the computed chi-square values are insufficient to reject the null hypothesis that there is no significant statistical association between cultural orientation and sector. This reasonably infers that, for the most part, an organisation's cultural orientation is determined by factors unrelated to the sector it occupies. However, in the case of *i*) technologically orientated and *ii*) employee centred cultures, the null hypothesis is rejected, suggesting that certain industrial sectors might expressly identify with one or both dimensions.

Therefore, looking specifically at the association between technological orientation and industrial sector (see TABLE 7.5), $\chi^2(44) = 64.80; p = .022$, where a phi coefficient of .77 indicates the strength of such association to be good.

Likewise, in examining the association between employee centredness and industrial sector (see TABLE 7.5), $\chi^2(33) = 44.47$; $p = .088$, where a phi coefficient of .64 indicates a moderate to good association.

TABLE 7.5: Association between Technological Orientation and Industrial Sector			
Chi-Square	Value	DF	Significance
Pearson	64.80149	44	.02223
Phi	.77461		.02223 *1
Cramer's V	.38730		.02223 *1
Contingency Coefficient	.61238		.02223 *1

Association between Employee Centredness and Industrial Sector			
Chi-Square	Value	DF	Significance
Pearson	44.46682	33	.08774
Phi	.64166		.08774 *1
Cramer's V	.37046		.08774 *1
Contingency Coefficient	.54005		.08774 *1

It may therefore be feasible to suggest that organisations who are concerned with state-of-the-art engineering, manufacturing or developmental processes might particularly perceive the importance of a technologically orientated culture. Moreover, it is likely that such organisations will employ a skilled and highly qualified workforce, the scarcity value of which perhaps inducing an employee centred culture. Thus, it can be argued that organisations involved at the forefront of technology and/or employing highly qualified personnel might particularly value one or both of these orientations. As for the other cultural orientations, it is suggested that companies may or may not consider them to be important but this appears to have little to do with industrial sector.

The situation is somewhat similar when exploring the possibility of a connection between the perceived importance of the various cultural features and the geographic location of the respondent's organisation. The resultant analysis (TABULATION 2) is again appended to this thesis and shows the perceived importance of each cultural orientation crosstabulated with the geographic location of all respondent organisations. Here it can be seen that, in every case, the computed chi-square value is insufficient to reject the null hypothesis that there is no significant statistical association between an organisation's cultural orientation and its geographic location. This might reasonably infer that an organisation's cultural orientation is determined by other factors unrelated to its own geographic location.

However, the position is somewhat different when exploring a possible association between a company's cultural orientation and, where applicable, the geographic origin of its parent. Essentially, there is evidence to suggest that the perceived importance of various cultural orientations might be significantly influenced according to the geographic origins of parent organisations (see appended TABULATION 3 and TABLE 7.6). Thus, with the exception of *i*) innovativeness, *ii*) technologically orientated and *iii*) community centredness, all other orientations exhibit sufficiently high chi-square values to reject the null hypothesis that there is no statistically significant association between parental origin and cultural orientation:

TABLE 7.6: Association Between Parent Origin and Strength of Cultural Orientation				
CULTURAL ORIENTATION	PEARSON χ^2	DF	SIGNIFICANCE	PHI
Market Responsive	45.21813	18	.00039	.75656
Innovative	12.97874	12	.37059	.40532
Goal Orientated	49.75768	18	.00008	.79363
Technologically Or	18.40054	24	.78316	.48262
Quality Centred	82.34208	12	.00000	1.02093
Employee Centred	30.41432	18	.03361	.62048
Customer Focused	86.89158	12	.00000	1.04876
Community Centred	14.75045	24	.92785	.43210

It might therefore be expected that sibling organisations would ostensibly exhibit a similar cultural orientation to that of their parents, and this is indeed reflected in the Managers' survey where 67.6% of those with parent organisations report that their own organisations emulate their parents orientation to a very similar or quite similar degree:

TABLE 7.7: Similarity to Parents' Cultural Orientation					
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Similar	1	22	19.6	29.7	29.7
Quite Similar	2	28	25.0	37.8	67.6
Neither Dissim. nor Similar	3	11	9.8	14.9	82.4
Quite Dissimilar	4	10	8.9	13.5	95.9
Very Dissimilar	5	3	2.7	4.1	100
	.	38	33.9	Missing	
Total		112	100	100	
Mean 2.243	Median 2.000	Mode 2.000			
Std dev 1.145	Variance 1.310	Valid cases 74			

Thus, the notion that sibling organisations might generally adopt the cultural values of their parents and subsequently project, for example, Americanised customer care concepts or Japanese quality ideals may appear reasonably credible. Moreover, such indoctrination is perhaps compounded by the likelihood that sibling and parent organisations will share the same industrial classification - this similarly borne out by the Managers' survey where 63.8% of respondents report this to be the case:

TABLE 7.8: Parent/Sibling Industrial Classification		
<i>ACTIVITY</i>	<i>SAME SIC</i>	<i>TOTAL</i>
Agriculture	0	1
Mining & Chemicals	1	3
Construction	5	5
Engineering	1	3
Aero Electronics	5	6
Other Manufacturing	6	10
Transport & Utilities	3	4
Wholesale	1	4
Retail & Restaurant	3	3
Finance & Real Estate	3	3
Business Services	2	5
	----	----
N	30	47

Therefore, as cultural orientation seems, in the main, to be independent of both industrial sector and physical geographic location, this leads to the tentative conclusion that parental involvement and intervention may be particularly influential in the formation of the cultural features of sibling organisations. This influence may well be further reinforced through shared experiences and contexts or transmitted through mutual interaction; perhaps encompassing trading history, supplier/customer experiences, market-place perceptions, management style, employer/employee attitudes, industrial relations history, etc., each shaping the cultural orientation of organisations rather than any notion of sectoral or geographic influence. Therefore, technological and employee centred orientation aside, the fact that cultural orientations display minimal inter-industrial dependency, perhaps reaffirms Kotter and Heskett's (1992) assertion that there is no such thing as generically good cultural content; and therefore it must contextually fit industrial conditions, industrial segments within the business strategy and the business strategy itself. Thus, it may prove to be the case that cultural orientation is very much linked to external contextual conditions and might therefore adapt accordingly.

Nevertheless, there is evidence to suggest a covert linking between various cultural features, where the comparative importance of one feature is somehow reflected in the importance given to another. Before proceeding with this strand, however, it is perhaps opportune to review the cultural preferences reported by the respondent Managers and place them in some rank order of perceived importance to the organisation.

The relative importance of cultural features:

In focusing on the cultural orientations of respondent organisations, it can readily be seen that each feature exhibits a reasonably normal distribution (ie., means and medians are not substantially different) albeit they are all, with the exception of Community Centred, distributed significantly to the left of the Likert scale. Furthermore, the majority of the responses are positioned towards the 'very important' end of each interval scale indicating a corresponding measure of importance rather than ambivalence or unimportance. Thus, aside from the community centredness feature, all other cultural orientations are generally perceived to be in some measure important to almost every respondent organisation. Therefore, although it is arguably the final mix of these that might determine the cultural personality of the organisation, each may nonetheless contribute immeasurably to the achievement of corporate goals and objectives and should correspondingly be considered key components in the analysis of need at the organisational level.

Market responsive:

Market responsiveness reflects the ability of an organisation to adapt successfully to changing market conditions. At its more sophisticated it considers the cognitive, affective and behavioural responses of consumers (Strong, 1925), utilising response hierarchy models to help predict consumer attitude and decision-making (eg., Lavidge & Steiner, 1961). At its more simplistic it involves the tailoring of aspects of the operation in order to reactively comply with consumer demand. For example, Benetton - the Italian fashion house, dyes its sweaters in colours that are currently selling rather than attempting to predict future trends, thus using a response-based supply mechanism to reduce inventory costs and minimise risk (Kotler, 1994). In general, market responsive might essentially mean the ability to develop business strategies that best exploit prevailing market conditions, but whatever the interpretation the following table illustrates its importance to contemporary organisations:

TABLE 7.9:		Market Responsive			
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Very Important	1	87	77.7	80.6	80.6
Quite Important	2	15	13.4	13.9	94.4
Neither Unimp. nor Import.	3	3	2.7	2.8	97.2
Quite Unimportant	4	2	1.8	1.9	99.1
Very Unimportant	5	1	0.9	0.9	100
	.	4	3.6	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 1.287	Median 1.000	Mode 1.000			
Std dev .698	Variance .487	Valid cases 108			

Thus, 80.6% of Managers perceive this feature to be very important, ranking it second in terms of its overall importance to organisational success (TABLE 7.17).

Innovative:

According to Gibbons (1996), innovation is a form of 'knowledge production' which has profound implications for both competitiveness and sustainability. In reflecting an organisation's ability to provide state-of-the-art goods and services and/or develop novel approaches to operational and commercial challenges, "the innovation process is increasingly seen as a key resource and the source of competitive advantage amongst firms in an increasingly competitive environment".

This perhaps signals the relevance of innovation as a central strategic component, yet Stacey (1995) points to the fact that organisations often focus on gaining competitive advantage in one market segment, which is probably at odds with an innovative outcome. Nonetheless, various models have been suggested for effective innovative management, and Stacey goes on to extol the virtues of those models that take into account the way Managers think, choose and act within their respective groups.

However, "there appears to be little research into how innovation and learning can be developed alongside each other" (Zhuang, 1995 pp.13-21), yet an innovative cultural orientation can be discerned, from TABLE 7.10, to be quite or very important to many of the respondent organisations:

TABLE 7.10:		Innovative			
				<i>Valid</i>	<i>Cum</i>
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Very Important	1	47	42.0	43.5	43.5
Quite Important	2	41	36.6	38.0	81.5
Neither Unimp. nor Import.	3	20	17.9	18.5	100
Quite Unimportant	4	0			
Very Unimportant	5	0			
	.	4	3.6	Missing	
Total		-----	-----	-----	
		112	100	100	
Mean 1.750	Median 2.000	Mode 1.000			
Std dev .750	Variance .563	Valid cases 108			

Thus, some 43.5% of the survey population believe this feature to be very important to the success of their organisation, whilst it ranks sixth in terms of its overall importance to the success of the organisation (TABLE 7.17).

Results and goal orientated:

Whipp and Pettigrew (1992) posit that the ability of an enterprise to compete rests on two qualities. "First, the capacity of the firm to comprehend the competitive forces in play and how they change over time. Secondly there is the linked ability of a business to mobilize and manage the resources necessary for the chosen competitive response through time".

Whilst their first point implies the importance of market intelligence, the latter succinctly encapsulates the importance of *a)* goal achievement through time, *b)* market responsiveness and *c)* innovation in the retention of competitive advantage. Thus a complementary association between various cultural features begins to emerge, perhaps hinting at a latent relationship that might be reasonably illustrated via factor analysis. Nonetheless, it may be unrealistic to assume that each Manager's perception of results and goal orientation necessarily encompasses the wider performance of the organisation within its outer context, deliberating such influences as the national economy, political interventionism, resource availability, etc. Rather, the respondent's view is perhaps more likely to be geared to inner contextual issues involving process standards, production throughput, or the desire to perpetuate a goal orientated attitude amongst members of the workforce.

However, at the end of the day most corporate objectives can be transcribed in terms of indices of effectiveness that can be related to almost every aspect of organisational activity (Katz and Kahn, 1978). Whether such indices are concerned with staff turnover, customer satisfaction, machine failure, component quality, etc., they are all nevertheless important inasmuch as they combine to express the overall goals of the organisation and articulate the standards by which such goals are deemed to be met.

TABLE 7.11: Results and Goal Orientated					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Very Important	1	78	69.6	72.2	72.2
Quite Important	2	23	20.5	21.3	93.5
Neither Unimp. nor Import.	3	6	5.4	5.6	99.1
Quite Unimportant	4	1	0.9	0.9	100
Very Unimportant	5	0			
	.	4	3.6	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 1.352	Median 1.000	Mode 1.000			
Std dev .631	Variance .398	Valid cases 108			

With regard to its perceived contribution to organisational success, 72.2% of respondent Managers consider this orientation to be very important, whilst it ranks fourth in terms of overall importance (TABLE 7.17).

Technologically orientated:

The perceived strength of an organisation's technological orientation is perhaps to some extent reliant on the commentator's own appreciation of technical issues. Thus, technologists may view the question of technological orientation in terms of the wider mechanisation of processes and systems; investment in research and design; and the introduction of state-of-the-art materials and techniques; whereas those less technically inclined might consider this question solely in terms of its influence on their own particular span of control. Therefore, whilst technically informed Managers within service-based industries and traditional manufacturing companies may consider their organisations technological orientation to be comparatively unremarkable, others working within the same company might view the introduction of new office technology to be

indicative of a strong technological bias:

TABLE 7.12: Technologically Orientated					
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Important	1	37	33.0	34.3	34.3
Quite Important	2	42	37.5	38.9	73.1
Neither Unimp. nor Import.	3	24	21.4	22.2	95.4
Quite Unimportant	4	3	2.7	2.8	98.1
Very Unimportant	5	2	1.8	1.9	100
	.	4	3.6	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 1.991	Median 2.000	Mode 2.000			
Std dev .922	Variance .850	Valid cases 108			

For example, at one level technological orientation may imply the wider employment of technically advanced manufacturing and administrative mechanisms in various areas of organisational activity. Thus, it might be reasonable to suppose that such implementation may be sectorally influenced, and this proposition is validated by the Managers' survey where a statistically significant association is revealed between industrial sector and technological orientation ($\chi^2(44) = 64.80$; $p = .022$, see TABULATION 1 and TABLE 7.5).

However, at another level technological orientation might be seen to mean the introduction of contemporary data-processing techniques to monitor and/or support traditional processes with a view to improving efficiency and quality. Whichever the perception, 34.3% of respondent Managers consider this orientation to be very important, whilst it ranks seventh in overall order of importance to the organisation (TABLE 7.17).

Quality centred:

In an increasingly competitive environment, many organisations believe that their unique selling point (USP) is fundamentally related to quality of product or service, this to the extent that 'commitment to quality' is very likely to be articulated in either the mission, vision or value statement of every major company. Thus, quality centredness appears to be an important factor in demonstrating organisational integrity, and many companies have found it commercially beneficial to validate their quality management systems with such agencies as the International Organisation for Standardization (ISO) and British

Standards Institution (BSI). Indeed, the pandemic nature of this orientation is seemingly illustrated by the survey, where the importance of quality centredness is seen to be widely recognised by most organisations and thus independent of industrial sector.

Nonetheless, quality programmes can range from inspection procedures at component, sub-assembly and product level, to holistic concepts such as 'Total Quality Management' (TQM). In the latter, notions of excellence, market orientation, management of expectations and service reliability, merge to promote a culture of maximum employee involvement, continuous improvement and customer satisfaction (DofE - US Gov't, 1997)

TABLE 7.13: Quality Centred					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Very Important	1	80	71.4	74.1	74.1
Quite Important	2	25	22.3	23.1	97.2
Neither Unimp. nor Import.	3	2	1.8	1.9	99.1
Quite Unimportant	4	0			
Very Unimportant	5	1	0.9	0.9	100
	.	4	3.6	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 1.306	Median 1.000	Mode 1.000			
Std dev .603	Variance .364	Valid cases			

In terms of organisational success, 74.1% of respondent Managers perceive it to be very important, whilst it ranks third in overall order of importance (TABLE 7.17).

Employee centred:

It is posited by various commentators (eg., Legge, 1996) that top performing organisations have a greater appreciation of the notion that 'employee centredness' is an essential contributor to organisational health and corporate success. This perhaps implies a certain obviousness and consistency in its definition, but it is feasible that Managers (and indeed employees) might consider this dimension from two perspectives - both demonstrably important to the organisation yet each having fundamentally different implications for its employees.

Thus, one view may place employee centredness in a resource context, involving such

aspects as task training, successor development, manpower planning, staff recruitment and downsizing. Another view may consider employee centredness in a welfare context, incorporating such elements as personal development, salary levels, pensions, holidays, and employment terms and conditions. It is therefore arguable that, on the one hand, respondent Managers might associate the resource context with various organisational indices of effectiveness (eg., improved quality, efficiency, and reduced staff turnover, absenteeism, etc.). On the other hand they might perhaps link the welfare context to the perceived benevolence of their organisation, not only viewing such benevolence from the labour force's perspective but possibly from their own positions as well.

Of particular interest is the evidence of a statistical association between this dimension and industrial sector ($\chi^2(33) = 44.47; p = .088$, see TABULATION 1 and TABLE 7.5), perhaps indicating that a sectoral requirement for a highly skilled and well qualified workforce might cause organisations to value this accordingly as a scarce resource.

TABLE 7.14: Employee Centred					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Very Important	1	51	45.5	47.2	47.2
Quite Important	2	48	42.9	44.4	91.7
Neither Unimp. nor Import.	3	7	6.3	6.5	98.1
Quite Unimportant	4	2	1.8	1.9	100
Very Unimportant	5	0			
	.	4	3.6	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 1.630	Median 2.000	Mode 1.000			
Std dev .692	Variance .478	Valid cases 108			

Concerning its relative importance as a cultural feature, 47.2% of respondent Managers consider an employee centred orientation to be very important, ranking it fifth in overall order of importance (TABLE 7.17).

Customer focused:

The Gee manual of Sales and Marketing (1994) states that "Customer care has become one of the most important issues facing businesses in every market" and subsequently suggests that it has two aspects - ".....the physical means of delivering customer service

and the attitude of staff".

Hence, whilst customer service is seen to be key to:-

- i) retaining long-term customer loyalty
- ii) elevating the profile of the organisation
- iii) opening new sales channels
- iv) contributing to long-term planning
- v) dealing with competitive activity

staff attitude is shown to exert a major influence on the achievement of these and associated goals.

It might therefore appear that this particular cultural feature has special connotations that perhaps seem to confine it to the sales, marketing, or contact areas of the organisation. However, with the emergence of such techniques as 'Total Quality Management' (TQM) and 'Just in Time' (JIT), organisations have perceivably identified the need to maximise intercompany co-operation and subsequently embraced the notion of the 'internal customer', where every department has quantifiable expectations of service from all other sections in the pursuance of company-wide efficiency and quality.

TABLE 7.15: Customer Focused					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Very Important	1	98	87.5	90.7	90.7
Quite Important	2	8	7.1	7.4	98.1
Neither Unimp. nor Import.	3	2	1.8	1.9	100
Quite Unimportant	4	0			
Very Unimportant	5	0			
	.	4	3.6	Missing	
Total		112	100	100	
Mean 1.111	Median 1.000	Mode 1.000			
Std dev .370	Variance .137	Valid cases 108			

Whatever the inference, 90.7% of respondent Managers consider this orientation to be very important, and it emerges as the highest ranked cultural orientation in its perceived importance to the organisation (TABLE 7.17).

Community centred:

The idea that many organisations function independently of their local community is

seemingly reflected in the following table, where the largest proportion of the respondent population (some 36.6%) perceive community centredness to be 'neither unimportant nor important' to the success of their organisations. Whether or not they are indeed ambivalent to local affairs is a matter for conjecture, yet it is nevertheless unlikely that any organisation would knowingly wish to alienate the local populace lest pressure elements within it instigate action that might have commercial repercussions.

Therefore, it is suggested that those organisations who perceive community centredness to be an important feature of their culture are likely to:

- i) have much to gain by appearing caring and responsive to community needs; eg., providers of public services, power utilities, etc., and companies physically expanding within the local community
- ii) have much to lose by appearing indifferent to community concern; eg., civil engineering contractors, chemical processors, and others whose activities might be controversial or imply a measure of public risk.

Therefore, as in the case of technologically orientated culture, this might intuitively suggest a relationship between industrial sector and community centred cultural orientation, yet in this survey the proposition of a statistically significant association is not validated (see TABULATION 1).

TABLE 7.16: Community Centred					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Very Important	1	8	7.1	7.4	7.4
Quite Important	2	38	33.9	35.2	42.6
Neither Unimp. nor Import.	3	41	36.6	38.0	80.6
Quite Unimportant	4	12	10.7	11.1	91.7
Very Unimportant	5	9	8.0	8.3	100
	.	4	3.6	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 2.778	Median 3.000	Mode 3.000			
Std dev 1.026	Variance 1.053	Valid cases 109			

With regard to its perceived contribution to organisational success, 7.4% of respondent Managers consider a community centred orientation to be very important, whilst it occupies eighth position in overall rank order and is thus perceived to be the least

important cultural orientation (TABLE 7.17).

Cultural features and their general importance to organisational success:

In examining the various cultural features it is evident that respondents *do* consider some of these dimensions to be more important to the success of the organisation than others - ie., Managers do not necessarily hold the view that all such features might, in some way or another, contribute differently yet equally to corporate success. Thus, the following analysis (TABLE 7.17) presents each cultural feature in mean rank order of importance, perhaps conjunctively illustrating the typical cultural orientation of commercially successful organisations.

In undertaking the tabulation, a Cronbach's Alpha reliability analysis yields a standardized correlation index of 0.71 - this value being in excess of 0.7 and therefore indicative of satisfactory internal consistency between the cultural features (Guilford, 1956). Thus, these items appear to possess sufficient degrees of association to enable the meaningful comparison of their arithmetic means and facilitate the computation of a mean rank order using Friedman's model for nonparametric ANOVA:

TABLE 7.17: Managers' View of Importance of Cultural Orientations to Organisations (N=108)								
Cultural Feature	1	2	3	4	5	SD	Mean	Mean_R
Customer focused	98	8	2	0	0	0.37	1.11	3.06
Market responsive	87	15	3	2	1	0.70	1.29	3.47
Quality centred	80	25	2	1	0	0.60	1.31	3.65
Results/goal orientated	78	23	6	1	0	0.63	1.35	3.76
Employee centred	51	48	7	2	0	0.69	1.63	4.63
Innovative	47	41	20	4	0	0.75	1.75	4.93
Technologically orientated	37	42	24	3	2	0.92	1.99	5.44
Community centred	8	38	41	12	9	1.03	2.78	7.06
<i>1 = very important; 2 = quite important; 3 = neither/nor imp; 4 = quite unimportant; 5 = very unimportant;</i>								

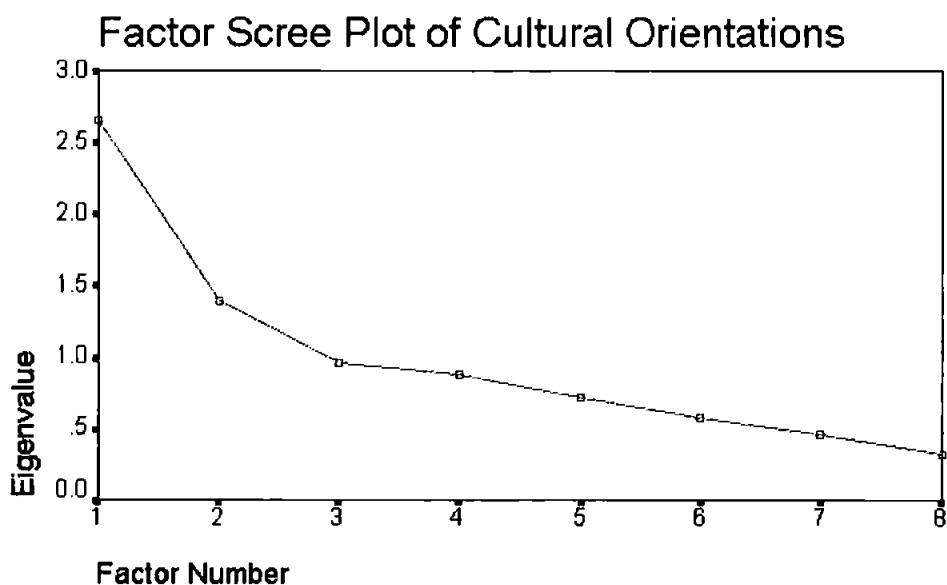
From the resultant table it is apparent that 'customer focused', 'market responsive', 'quality centred' and 'results/goal orientated' have closely grouped mean rank values (Mean_R), whilst the remaining cultural features are spread to a significantly wider extent. This perhaps indicates that organisations place greatest importance on features whose indices of effectiveness are primarily related to satisfying consumer demand, and lower importance on less commercially orientated dimensions.

Underlying relationships between cultural features:

This arguably lends support to the proposition that the level of importance which organisations place on various cultural features might have some underlying foundation, perhaps intimating that latent variables may link a number of the cultural orientations. Moreover, this seems all the more conceivable when examining the inter-item correlation matrix where comparatively large coefficients can be observed, for example, between results and goal orientated (Q04_03) and employee centred (Q04_06); and between quality centred (Q04_05) and customer centred (Q04_07):

TABLE 7.18: Inter-item Correlation Matrix of Cultural Orientations							
----- SPEARMAN CORRELATION COEFFICIENTS -----							
Q04_02	.3811**						
Q04_03	.1966*	.1933*					
Q04_04	.0560	.3307**	.1290				
Q04_05	.0116	.1484	.1554	.3012**			
Q04_06	.1612	.3764**	.3810**	.2572**	.2688**		
Q04_07	.1099	.0970	.1543	.1416	.4376**	.1571	
Q04_08	.2085*	.2703**	.1538	.1686	.0597	.3174**	.0323
	Q04_01	Q04_02	Q04_03	Q04_04	Q04_05	Q04_06	Q04_07
* - Signif. LE .05 ** - Signif. LE .01 (2-tailed) " ." is printed if a coefficient cannot be computed							

Hence, this notion of an underlying association between the various cultural orientations is further illustrated in the following scree plot, where two main factors are indicated:- factor 1 exhibiting an Eigenvalue of 2.65 and accounting for 33.2% of the variable; and factor 2 showing an Eigenvalue of 1.39 and contributing to 17.4% of that variable:



In undertaking the factor analysis, a two-factor solution is adopted and the Varimax method of rotation selected as the means of rotating the extracted matrix and exploring the composition of the predicted factors. In order to simplify the factor matrix table, the value for salient loading is set at 0.5 with all loadings below this value suppressed.

The resultant rotated matrix for *Factor 1* (TABLE 7.19) appears, perhaps surprisingly, to exhibit the strongest factor loadings in cultural orientations that are scored least important by the Managers and display the weakest factor loadings in dimensions that are scored most important. In other words, the underlying variable is almost paradoxically the inverse of the market responsive, goal orientated cultural orientation conveyed via the importance scales, and therefore seems to have its strongest roots in those features that are important in conveying corporate image.

Thus, *Factor 1* has its highest loading in the employee centred feature which arguably embraces one of the most influential catchments for the rendering of corporate image. Ind (1990) articulates this by suggesting that employees constitute the most important identity audiences for corporate culture, insofar as "It is the employees who will determine whether an organisation is able to meet its objectives or not. It is the employees who will determine the product quality. And it is the employees who will determine the corporate image". Ind goes on to identify other audiences including potential employees, local communities, the media, customers, corporate buyers, suppliers, etc., all of whom are important receptors and propagators of an organisation's corporate image. Hence, community centredness exhibits a comparatively high loading, as do other dimensions that perceivably express an organisation's ethical and cultural exclusivity or differentiation (innovative); its criteria of success (results and goal orientated); and its wish to satisfy the needs of its identity audiences (market responsive). In the same vein, *Factor 2* is seen to mirror the service and quality aspect of the corporate image, this exemplifying notions of customer care and quality consciousness.

TABLE 7.19:		Rotated Factor Matrix of Cultural Features	
		<i>Factor 1</i>	<i>Factor 2</i>
Q04_01	Market responsive	.51154	
Q04_02	Innovative	.67830	
Q04_03	Results and goal orientated	.62717	
Q04_04	Technologically orientated		
Q04_05	Quality centred		.87332
Q04_06	Employee centred	.72784	
Q04_07	Customer focused		.88753
Q04_08	Community centred	.64659	

The direction and extent of organisational change:

One of the central themes of this dissertation is that the extent and direction in which organisations are being induced to change is subsequently influencing the task roles and training needs of administrative support staff. Thus, organisational change is relevant to a number of focal issues and in the first instance it is proposed to review Managers' perceptions of the principal reasons for change and gauge the extent of their influence on respondent organisations over the preceding five years. Furthermore, in considering the outer context of change (see chapter one) it is intended to investigate whether different forces for organisational change might have a tendency to be sectorally influenced, and determine whether or not specific influences might affect the shaping of secretarial task roles.

National economy:

Recent years have seen several shifts in economic direction. The 1960's and 1970's were seemingly characterised by Keynesian macro-economic theory where, in response to the severe involuntary unemployment of the inter-war years, conscious political intervention in the working of the economic system was used to control aggregate demand and employment equilibrium (Rowan, 1979). However, critics of Keynes emphasised the role of money in explaining short-term changes in money-income, real income and employment and argued that the importance of money had been erroneously overlooked. The subsequent prominence of monetarism (typified by economists such as Milton Friedman) converged in the Thatcher years of the 1980's, heralding a decade that saw an enterprise economy emerge from an optimistic, laissez-faire environment. Nevertheless, by the 1990's high consumer spending and unprecedented levels of inflation prompted a reversion to interventionist macro-economic policies, and the early 1990's achieved a measure of economic stability only at the cost of elevated levels of unemployment and high interest rates.

With the mid 1990's came stricter inflation control, lower interest rates and slowly falling unemployment, but it was also accompanied by a general lack of consumer confidence, particularly in such areas as real estate where a pessimistic and depressed market reflected in many other areas of consumer spending. Thus, within the space of a few years, contemporary organisations had experienced the excesses of two dissimilar economic theories, the influence of each presumably differing from company to company.

TABLE 7.20: National Economy					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
No Change or N/A	1	11	9.8	10.1	10.1
Minor Change	2	17	15.2	15.6	25.7
Moderate Change	3	26	23.2	23.9	49.5
Marked Change	4	33	29.5	30.3	79.8
Considerable Change	5	22	19.6	20.2	100
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 3.349	Median 4.000	Mode 4.000			
Std dev 1.250	Variance 1.563	Valid cases 109			

This might perhaps hint at a relationship between the perceived influence of the national economy and industrial sector, and this is validated by the survey where a statistically significant association is revealed ($\chi^2(44) = 63.84; p = .027$, see TABULATION 3 and TABLE 7.31). However, in general, respondent Managers cite the national economy as inducing between a moderate and marked degree of change, reporting it to be the third greatest influence on organisational change (TABLE 7.32).

Changing markets:

There are a number of factors that might induce organisations to seek new markets, but the principal reasons are almost inevitably bound up with long-term strategy, consumer behaviour and profitability.

In cases where this is reactive, organisations might enter new markets:

- a) in response to falling demand within traditional markets
- b) in situations where the market place has become untenably competitive resulting in unacceptable profit margins
- c) in circumstances where essential factors of production become unobtainable or unaffordable.

In cases where this is proactive, organisations might enter new markets:

- a) to expand their business portfolio
- b) to achieve a better mix of business units (ie., cash cows and rising stars)
- c) to develop synergenic opportunities from existing resources and expertise.

Clearly, there are also other reasons relating to the outer context that might prompt organisations to investigate other markets (eg., changes in public opinion, government interventionism, legal constraints, restrictive working practices, etc.) but these are perhaps unlikely to be central to such decisions and only of real consequence if adversely affecting strategic plans or profitability.

TABLE 7.21: Changing Markets					
Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Change or N/A	1	6	5.4	5.5	5.5
Minor Change	2	16	14.3	14.7	20.2
Moderate Change	3	23	20.5	21.1	41.3
Marked Change	4	41	36.6	37.6	78.9
Considerable Change	5	23	20.5	21.1	100
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 3.541	Median 4.000	Mode 4.000			
Std dev 1.143	Variance 1.306	Valid cases 109			

As in the case of the national economy, there is evidently an association between the extent of organisational change induced by changing markets and industrial sector ($\chi^2(44) = 57.84; p = .078$, see TABULATION 3 and TABLE 7.31), albeit at an α level of 0.10 (refer to χ^2 Distribution Table - APPENDIX 5). Thus, the extent of organisational change attributable to changing markets may tend to differ according to industrial sector.

Of special interest, moreover, is the evidence of a low but statistically significant negative correlation between the extent of such organisational change and an innovative cultural orientation:

TABLE 7.22: Changing Markets and Innovative Cultural Orientation	
----- SPEARMAN CORRELATION COEFFICIENTS -----	
Q06_02	r = -.2595
	N(108)
	Sig .007
Q04_02	
(Coefficient / (Cases) / 2-tailed Significance) " . " is printed if a coefficient cannot be computed	

This might reasonably suggest that the more innovative an organisation's cultural orientation, the less influence changing markets are likely to have on organisational change.

Thus, it may be surmised that those companies who consider themselves to have a highly innovative orientation, tend perhaps to:

- a) respond to market forces in a singular manner that minimises organisational change and/or
- b) by their very nature be proactive agents rather than reactive followers of changing market conditions.

In general, however, the effects are not inconsiderable, with Managers reporting changing markets as inducing between a moderate and marked degree of organisational change and thus making this dimension the second greatest change influence (TABLE 7.32).

Business diversification:

To an extent, the reasons why an organisation might diversify are mirrored in those relating to changing markets. However, whilst the motivation behind changing markets is likely to be strategic, consumer, or profit driven, the impetus behind diversification might arguably spring from business synergy where a commercial advantage can be seen in reapplying existing resources within a different framework. It is therefore suggested that business diversification might characteristically be a more regulated, progressive process and thus less likely to induce the dramatic changes that may occur with the adoption perhaps of new technologies, new skills, and new customer bases.

TABLE 7.23:		Business Diversification			
				<i>Valid</i>	<i>Cum</i>
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
No Change or N/A	1	26	23.2	23.9	23.9
Minor Change	2	20	17.9	18.3	42.2
Moderate Change	3	29	25.9	26.6	68.8
Marked Change	4	23	20.5	21.1	89.9
Considerable Change	5	11	9.8	10.1	100
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 2.752	Median 3.000	Mode 3.000			
Std dev 1.306	Variance 1.707	Valid cases 109			
150					

Indeed, this appears to be borne out in the Managers' survey, where their responses place business diversification some four places lower than changing markets (ie., sixth position) in terms of its influence on organisational change (TABLE 7.32). Moreover, there appears to be no statistically significant association between the extent of change induced through business diversification and industrial sector (see TABULATION 3 and TABLE 7.31), perhaps suggesting that every organisation might fundamentally differ in its approach to business diversification.

Technological change:

In Chapter Two, the introduction of new office technology is discussed at some length, particularly with regard to its predicted v/s actual effect on the task roles of administrative support staff. What clearly emerges from the literature is that early predictions concerning new technology's impact on clerical jobs were, in the main, erroneous and based on the assumption that a form of office 'Taylorism' would dramatically reduce the need for human intervention.

However, it subsequently transpires that data processing techniques have a tendency to be used not only as a means of reducing the need for human involvement in repetitive, mundane tasks, but also to improve the quality of that work which might perceivably benefit from technological enhancement. Technology may in fact have had a positive effect on employment levels, reflected in the HMSO Labour Force Surveys (TABLE 2.1), where there is clear evidence of a continuing rise in the total number of administrative support personnel at a time when the adoption of new office technology is accelerating.

Thus, technological evolution is not necessarily characterised by manpower reductions and/or the gradual dehumanisation of traditional task roles, but might rather offer new ways of doing things which may previously have been prohibitively expensive, difficult, or even technically unachievable. Nonetheless, the advent of new office technology and automated production processes are only part of this dimension and in varying degrees technological change may be evident in research and design, management control systems, internal and external communications, procurement, materials handling, sales-order processing and perhaps every perceivable area of organisational activity.

However, assessing the extent of technological change may perhaps be likened to assessing an organisation's technological orientation, inasmuch as both might be particularly influenced by the observer's comprehension of technical issues. Thus, a

technologist's perception of the extent of technological change may differ considerably from that of a generalist who might under or over-estimate the effects of technology on the overall change process. Furthermore, the extent of technological change correlates negatively with technological cultural orientation, suggesting that organisations who declare themselves to have a technologically orientated culture tend to experience a lesser degree of organisational change resulting from technological factors.

TABLE 7.24: Technological Change and Technologically Orientated Culture	
----- SPEARMAN CORRELATION COEFFICIENTS -----	
Q06_04	r = -.4961
	N(108)
	Sig .000
Q04_04	
(Coefficient / (Cases) / 2-tailed Significance) " . " is printed if a coefficient cannot be computed	

This implies that a technologically orientated predisposition might embrace a more proactive approach to technological influences, perhaps reflected in certain organisations being more receptive to associated change. However, such a predisposition appears to be unrelated to industrial activity, there being no statistically significant association between the extent of technological change and industrial sector (see TABULATION 3 and TABLE 7.31). Nonetheless, taken as a whole the Managers report technological change as having the fourth greatest influence on the extent of organisational change (TABLE 7.32).

TABLE 7.25:		Technological Change			
				<i>Valid</i>	<i>Cum</i>
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
No Change or N/A	1	6	5.4	5.5	5.5
Minor Change	2	19	17.0	17.4	22.9
Moderate Change	3	38	33.9	34.9	57.8
Marked Change	4	32	28.6	29.4	87.2
Considerable Change	5	14	12.5	12.8	100
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 3.266	Median 3.000	Mode 3.000			
Std dev 1.068	Variance 1.142	Valid cases 109			

Foreign competition:

It may perhaps be surmised that the effect of foreign competition on organisational change might tend to relate to the type of goods or services which an organisation provides and is thereby influenced by industrial sector ($\chi^2(44) = 61.16; p = .044$, see TABULATION 3 and TABLE 7.31). Thus, those industries that are service-based and function within the home market may be theoretically unaffected by foreign competition, whilst those providing international services, or manufacturing goods that have foreign equivalents, might need to compete with foreign producers for domestic and overseas revenues. However, whilst the source of competition may be historically predictable (eg., German cars, Japanese electronics, Italian furnishings, etc.), exchange rate fluctuations can have a more transient influence on consumer demand, precipitated by:-

- i) dearer exports and cheaper imports as the national currency becomes stronger - both having an adverse effect on the demand for home production;
- ii) cheaper exports and dearer imports as the national currency becomes weaker - both having a positive effect on the demand for home production.

From a manufacturer's viewpoint the second condition may appear beneficial, but this state is inflationary and thus achieving an equilibrium between the two is an important aspect of macro-economic management. Furthermore, a failure to maintain such equilibrium could cause enforced long-term changes in the pattern of demand, potentially inducing unemployment with its consequential effect on consumer spending.

Nevertheless, 40.4% of respondent Managers do not consider that foreign competition is contributing to change within their organisations, and its overall effect on organisational change is perceived to be slightly greater than minor in its extent.

TABLE 7.26: Foreign Competition					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
No Change or N/A	1	44	39.3	40.4	40.4
Minor Change	2	23	20.5	21.1	61.5
Moderate Change	3	22	19.6	20.2	81.7
Marked Change	4	13	11.6	11.9	93.6
Considerable Change	5	7	6.3	6.4	100.0
	.	3	2.7	Missing	
Total		112	100	100	
Mean 2.229	Median 2.000	Mode 1.000			
Std dev 1.274	Variance 1.623	Valid cases 109			

Therefore, with regard to its perceived influence on organisational change, Managers place foreign competition eighth in terms of its rank order (TABLE 7.32).

Efficiency improvements:

To realise efficiency improvements and consequently make better use of material and human resources is perhaps one of the principal aims of every organisation. Clearly, such improvements may enhance quality of product or service and therefore promote revenues; may reduce operating costs and therefore increase profitability; and may generally add a further dimension of professionalism that might encourage new business. However, whilst the ways in which efficiency improvements can be achieved are many and various, they perceivably result in some measure of organisational change. Indeed, this appears to be borne out by the Managers' survey where 58.7% of respondents report that their organisations are experiencing related change to a marked or considerable extent.

TABLE 7.27: Efficiency Improvements					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
No Change or N/A	1	4	3.6	3.7	3.7
Minor Change	2	7	6.3	6.4	10.1
Moderate Change	3	34	30.4	31.2	41.3
Marked Change	4	43	38.4	39.4	80.7
Considerable Change	5	21	18.8	19.3	100
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 3.642	Median 4.000	Mode 4.000			
Std dev .986	Variance .973	Valid cases 109			

Thus, the instigation of efficiency improvements appears to induce greater organisational change than any other factor, hence its first rank order position (TABLE 7.32). Moreover, this change seems to be independent of business activity, there being no statistically significant association between the extent of organisational change induced through efficiency improvements and industrial sector (see TABULATION 3 and TABLE 7.31).

Resource cost or availability:

Clearly, an increase in the cost of material and human resources is of fundamental importance to almost every organisation inasmuch as a failure to counter its effects will almost certainly have an adverse influence on operating budgets, sales revenues and profit margins. Whilst in some instances, the organisation might simply pass the cost down the line to the distributor, retailer or end-user, in a competitive environment it may need to seek other ways of redressing the rising cost of essential resources.

For example, in the case of material resources it may investigate different suppliers, utilise cheaper equivalents, undertake re-engineering exercises to reduce component quantities and adopt novel procurement and storage techniques to minimise stock-holdings, etc. In the case of human resources it may train individuals in new skills, reorganise existing structures to absorb required activities, devise new methods of working and perhaps mechanise certain tasks in order to reduce the involvement of skilled operatives, etc.

TABLE 7.28: Resource Cost/Availability					
				<i>Valid</i>	<i>Cum</i>
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
No Change or N/A	1	13	11.6	11.9	11.9
Minor Change	2	16	14.3	14.7	26.6
Moderate Change	3	32	28.6	29.4	56.0
Marked Change	4	31	27.7	28.4	84.4
Considerable Change	5	17	15.2	15.6	100
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 3.211	Median 3.000	Mode 3.000			
Std dev 1.225	Variance 1.501	Valid cases 109			

Thus, the extent that this factor might influence organisational change is likely to depend on the methods employed to counter rising resource costs and/or restricted availability. Obviously, where such methods are primarily concerned with pricing strategy, their influence will probably be comparatively minimal, whilst the reorganisation required to accommodate product re-engineering and new manufacturing processes could be extensive. Nevertheless, Managers report overall that resource cost and availability is contributing to slightly more than moderate organisational change, rating it fifth in terms of its rank order (TABLE 7.32). However, such change appears to be independent of

commercial activity, there being no statistically significant association between resource cost and availability and industrial sector (TABLE 7.31).

Legal or political pressure:

The ways in which legal and political pressures might act on an organisation are multifarious and therefore their direct influence on organisational change may perhaps be difficult to realistically assess. Essentially, every organisation has a civil duty to operate within the law of the land, which is enshrined in constitutional law and the laws of contract, tort, and property. Furthermore, in the shaping of commercial law, company law, and employment law, a statutory framework is given to organisational behaviour, therein detailing the duties, rights and obligations of commercial organisations and imposing appropriate rules of conduct.

Nonetheless, it may be in the area of employment law that the most far-reaching influences on contemporary organisations might be exerted. Since 1970, more than thirty related acts have entered the statute books encompassing equal pay, health & safety, employment protection, sex discrimination, race relations and various trade union acts and it is such legislation that has forged the industrial relations policies of many organisations.

Thus, there are arguably very few areas of organisational activity that are not ultimately subject to official overview, especially if such activities enter the public domain. For example, privatised utilities are subject to directives regarding standards of service and levels of profitability; financial services are required to operate within rigid codes of practice since the introduction of the 1996 Financial Services Act; and every organisation has a civil duty to observe a multitude of acts extending from data protection to consumer protection.

Additionally, there are various instances where public opinion or political expediency is given legislative support, with such legislation differing in its implication for organisational change. In its most extreme it might attempt to *a)* restrict an organisation's access to a wider market (eg., by curtailing the media coverage of cigarette promotions); *b)* censor its public image or the service it provides (eg., by demanding compliance with such bodies as the Advertising Standards Authority); or *c)* dictate the conditions under which it trades (eg., by initiating beef culling policies in the light of Creutzfeldt-Jakob disease and restricting handgun sales in the aftermath of the Dunblane shooting incident).

Typically, however, the extent to which legislation and governmental interventionism is perceived to influence organisational change is perhaps comparatively minor, seemingly endorsed by the fact that 40.4% of respondent Managers do not consider that legal or political pressure is inducing change within their organisations, thereby placing it seventh in terms of its rank order (TABLE 7.32).

TABLE 7.29: Legal or Political Pressure					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
No Change or N/A	1	44	39.3	40.4	40.4
Minor Change	2	27	24.1	24.8	65.1
Moderate Change	3	17	15.2	15.6	80.7
Marked Change	4	10	8.9	9.2	89.9
Considerable Change	5	11	9.8	10.1	100
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 2.239	Median 2.000	Mode 1.000			
Std dev 1.340	Variance 1.794	Valid cases 109			

Furthermore, the influence of legal and political pressure on an organisation does not appear to have a sectoral bias, and thus no statistically significant association is apparent between legal and political pressure and industrial sector (see TABLE 7.31).

Decentralisation:

Perhaps one of the major factors that contributed to the popularising of organisational decentralisation throughout the 1980's was the rapid evolution of new office technology. The emergence of sophisticated data-processing and communications equipment assisted organisations to redeploy human and material resources in configurations that apparently offered significant cost benefits yet retained operational efficiencies. Also, the new technology enabled organisations to furnish regional executives with on-line access to management reporting information, thereby giving the illusion of functional autonomy whilst utilising the same data flows to monitor the effects of local decision-making (Marginson et al, 1988). However, the economic downturn in the early 1990's induced many organisations to delayer their executive structures, whilst the subsequent thinning in the ranks of management and other professionals tended to extend the roles of those who

remained (Hennebach, 1989). Thus, with the flattening of hierarchical structures, many organisations appear to be reviewing the benefits of centralised resources and expertise, resulting in head-offices once again becoming central to the decision-making process.

TABLE 7.30: Decentralisation					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
No Change or N/A	1	62	55.4	56.9	56.9
Minor Change	2	15	13.4	13.8	70.6
Moderate Change	3	14	12.5	12.8	83.5
Marked Change	4	14	12.5	12.8	96.3
Considerable Change	5	4	3.6	3.7	100
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 1.927	Median 1.000	Mode 1.000			
Std dev 1.245	Variance 1.550	Valid cases 109			

This is perhaps illustrated by the fact that within the past five years, 3.7% of respondent Managers report that considerable organisational change has taken place as a result of decentralisation, whereas 56.9% record that their organisations have remained unaffected by this factor. Thus, decentralisation appears to have made the least contribution to organisational change overall, placing it in ninth and last position in terms of its order of ranking (TABLE 7.32). Furthermore, the act or effect of decentralisation seems to be unrelated to commercial activity, there being no statistically significant association between decentralisation and industrial sector (see TABLE 7.31):

TABLE 7.31: Association Between Sector and Extent of Organisational Change				
<i>CULTURAL ORIENTATION</i>	<i>PEARSON χ^2</i>	<i>DF</i>	<i>SIGNIFICANCE</i>	<i>PHI</i>
National Economy	63.84205	44	.02680	.76531
Changing Markets	57.83681	44	.07880	.72843
Business Diversificat	39.23202	44	.67583	.59994
Technological Change	41.82644	44	.56521	.61946
Foreign Competition	61.16243	44	.04424	.74908
Efficiency Improvements	44.03744	44	.47006	.63562
Resource Cost/Available	45.66198	44	.40288	.64724
Legal/Political Press	50.93616	44	.21946	.68360
Decentralisation	37.29312	44	.75264	.58493

Comparing the factors influencing organisational change:

From the preceding analysis it is evident that certain organisational change factors have, in overall terms, induced a greater degree of change than others. Moreover, Cronbach's Alpha reliability analysis yields a standardized correlation index of 0.6155 - this value being sufficiently close to 0.7 to indicate satisfactory internal consistency between the change factors. Thus, the change items seem to possess sufficient degrees of association to enable the meaningful comparison of their arithmetic means and facilitate the computation of a mean rank order using Friedman's model for nonparametric ANOVA:

TABLE 7.32:	<i>Mean</i>	<i>Standard</i>	<i>Mean</i>
<i>Influence for Change</i>	<i>Score</i>	<i>Deviation</i>	<i>Rank</i>
Efficiency improvements	3.64	0.99	6.59
Changing markets	3.54	1.14	6.38
National economy	3.35	1.25	5.84
Technological change	3.27	1.07	5.64
Resource cost and availability	3.21	1.23	5.51
Business diversification	2.75	1.31	4.77
Legal or political pressure	2.24	1.34	3.65
Foreign competition	2.23	1.27	3.59
Decentralisation	1.93	1.25	3.04

From the resultant table (TABLE 7.32) a profile of contemporary organisational change begins to emerge. Overall it appears that top organisations have experienced between moderate and marked organisational change during the past five years as the result of efficiency improvements and changing markets and little more than moderate change as the result of the national economy, technological change and resource cost/availability. Other dimensions have averagely induced little to moderate change, yet it is conceivable that a latent variable may be linking the factors, particularly as the inter-item correlation matrix reveals a number of low but statistically significant coefficients (TABLE 7.33).

TABLE 7.33:	Inter-item Correlation Matrix of Organisational Change								
	Q06_01	Q06_02	Q06_03	Q06_04	Q06_05	Q06_06	Q06_07	Q06_08	Q06_09
Q06_01	1.00000								
Q06_02	.31390	1.00000							
Q06_03	.06471	.27669	1.00000						
Q06_04	.02004	.17670	.19360	1.00000					
Q06_05	-.01579	.20013	.09009	.18605	1.00000				
Q06_06	.07208	.16520	.08868	.12633	.20595	1.00000			
Q06_07	.18729	.17555	.02139	.25378	.33056	.36188	1.00000		
Q06_08	.18765	.14471	.22456	.21403	-.02150	.12127	.20598	1.00000	
Q06_09	-.02505	.12579	.01149	.04266	.03406	.31021	.13770	.22711	1.00000

Thus, from this table a correlative association can be seen to exist exist between :

the national economy (Q06_01) and changing markets (Q06_02) $r=0.31, p<.001$

business diversification (Q06_03) and changing markets $r=0.28, p=.002$

technological change (Q06_04) and resource cost/availability (Q06_07) $r=0.25, p=.004$

foreign competition (Q06_05) and resource cost/availability $r=0.33, p<.001$

efficiency improvements (Q06_06) and resource cost/availability $r=0.36, p<.001$

efficiency improvements and decentralisation (Q06_09) $r=0.31, p<.001$

This perhaps suggests that the influence of organisational change in one dimension may be correspondingly reflected in another and, whilst such a connection might not in itself suggest a causal relationship, it may nevertheless indicate the presence of a latent variable that might serve to link some of the change elements. Thus, the notion of an underlying association is illustrated in the following scree plot and table (TABLE 7.34), where the variable seemingly consists of five main factors, collectively contributing to 73.6% of the whole:

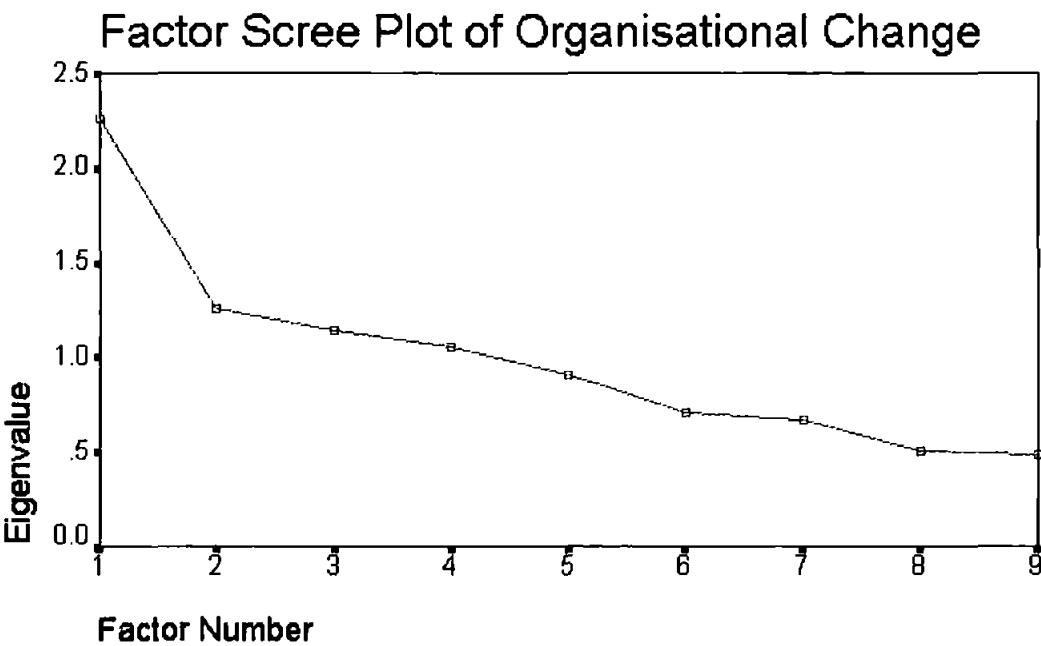


TABLE 7.34:	Factor	Eigenvalue	% of Var	Cum %
	1	2.26367	25.2	25.2
	2	1.25957	14.0	39.1
	3	1.14187	12.7	51.8
	4	1.05277	11.7	63.5
	5	.90939	10.1	73.6

In exploring a five factor solution, the criterion for salient loading is provisionally set at 0.5 and therefore absolute loading values below 0.5 are suppressed. The resultant orthogonal varimax elegantly converges in nine iterations, successfully loading in all nine of the change elements (see TABLE 7.35).

TABLE 7.35: Rotated Factor Matrix for Organisational Change		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Q06_01	National economy				.91866	
Q06_02	Changing markets					.61617
Q06_03	Business diversification					.84687
Q06_04	Technological change			.71683		
Q06_05	Foreign competition	.82097				
Q06_06	Efficiency improvements		.66485			
Q06_07	Resource cost/availability	.62372				
Q06_08	Legal or political pressure			.73958		
Q06_09	Decentralisation		.87001			

Moreover, it is apparent that the latent variable linking these dimensions has five prominent dimensions, principally:

i) cost/availability ii) efficiency iii) technology iv) the economy v) strategy

Considering these dimensions in order:-

Factor 1 comprises 25.2% of the variable with its salient loadings in foreign competition and resource cost/availability. Thus, the largest proportion of the variable appears to be concerned with changes in the cost and availability of resources and its subsequent effect on competitiveness.

Factor 2 contains 14% of the variable with salient loadings in efficiency improvements and decentralisation. This segment seems to relate to an organisation's interest in maximising operational efficiency - represented by efficiency improvements at one end of the spectrum through to decentralisation at the other.

Factor 3 represents 12.7% of the variable with salient loadings in technological change and legal or political pressure. Thus, this factor is apparently also concerned with the legal/political implications of technological change, perhaps typified by the health and safety at work act and data protection legislation.

Factor 4 consists of 11.7% of the variable and is loaded in the national economy. This factor is perceivably concerned with the influence of economic change on the business environment and its corresponding effect on organisational activity.

Factor 5 makes up 10.1% of the variable with salient loadings in business diversification and changing markets. It therefore appears that this factor has a strategic dimension, where business diversification and changing markets may be essential to organisational survival or business growth.

Nonetheless, in examining the overall structure of the variable it is apparent that its greatest proportions are loaded in those change factors that have more immediate implications for the organisation, such as resource cost/availability and efficiency improvements. Alternatively, its smallest proportions are in those factors that are longer term and essentially strategic such as the national economy and business diversification. Thus, the variable linking the surveyed change factors appears to tend towards the reactive, perceivably representing the order in which management concerns itself or deals with change issues. This therefore seems to imply a time dimension, where factors that are likely to have a dynamic effect on organisational activity are given priority over those factors that are generally progressive in their cause or effect.

However, cautions do prevail regarding the interpretation of such analyses and it has therefore been included to illustrate the notion that change issues are probably linked, and not to proffer definitive reasons for such linking. Nevertheless, the analysis arguably infers that although efficiency improvements, changing markets, and the national economy might be inducing the greatest degree of organisational change (TABLE 7.32), this may not necessarily represent the order in which organisations address such issues.

Common characteristics of top companies:

Thus, disregarding individual features such as turnover, profitability, staffing levels, geographic location, etc., a profile of a typical 'top' company can begin to be drawn. Based on the Managers' survey, a Times Top 1000 or similar high turnover company is likely to have a parent organisation (70.5%) with geographic origins in the United Kingdom or Europe (77.2%). Both parent and sibling are likely to be perceived to exhibit a similar cultural orientation (67.6%) and there is also a high probability that they will share the same industrial classification (63.8%). However, this cultural similarity will not necessarily have its foundation in intra-industrial commonality, but will reasonably result from the interaction that occurs between them.

Nevertheless, the typical 'top' company is likely to have a cultural orientation that is very much consumer driven, placing high value on features such as customer focused', 'market

responsiveness', 'quality centredness' and 'results/goal orientated'. In recent years the company will probably have undergone greatest organisational change in pursuit of efficiency improvements and been affected to a moderate degree by changing markets, the national economy and technological change.

However, in the management of change such organisations might tend to demonstrate a somewhat reactive approach to related issues, perhaps pursuing more rigorous and enduring solutions only after expedient or less costly alternatives are apparently exhausted. This latter point has important implications for the advancement of administrative support staff insofar as their training and development feasibly has a strategic dimension. Thus, an individual's more immediate deployment might take undue precedence over that person's potential for horizontal job enlargement or vertical role integration, arguably depriving both organisation and individual of progressive benefits and opportunities. Whether or not this is indeed relevant to administrative support staff is explored in the next chapter, where the task roles of secretarial staff are examined from the Manager's perspective. Thus, the following chapter will endeavour to report the manner in which secretarial and administrative support roles are perceptively changing and gauge the influences that company culture and organisational change might be exerting.

MANAGERS' PERCEPTION OF CHANGING SECRETARIAL TASK ROLES

From the previous chapter, a profile of a typical 'top' company may be established, both in terms of its cultural orientation and in terms of the types of organisational change that it is likely to be encountering. Perhaps surprisingly, this phase of the study reveals no statistically significant correlation between a company's cultural preferences, the type of change that it might be undergoing and the industrial sector which it occupies. Thus, instead of being shaped by sectoral or geographically based variables, there is some evidence that an organisation's cultural orientation is probably determined through its own experiences and in its intra-group relationships with parent or sibling companies. Moreover, this orientation will typically embrace a consumer driven ideology, valuing such features as customer focused and quality centred, etc.

However, whilst there appears to be no statistically significant evidence of a relationship between a company's cultural orientation and its predisposition to a given type of change, there is nonetheless some correlation between its cultural orientation and the effect that certain types of change may have upon it. Thus, 'innovative' organisations may experience a lesser degree of organisational change as a result of changing markets and 'technologically orientated' organisations might be less effected by technological change. It is also apparent that the extent of change attributable to one dimension (eg., national economy) may correspondingly be reflected in another (eg., business diversification). The following chapter continues the discussion on change issues and gauges, from the Managers' perspective, their influence on the task roles of secretarial personnel.

The degree that organisational change is affecting secretarial job roles:

Participating Managers were asked to assess the degree that they believe secretarial job roles to be changing as a result of factors identified in the previous chapter (eg., the national economy, changing markets, business diversification, etc).

From TABLE 8.1 the distribution of the scores may be described in terms of the mean, mode and median, which in this case are 3.13, 3.00 and 3.00 respectively. As in previous tables, *Mean* = the mean position on a Likert scale extending from 1 (not at all) to 5

(considerable degree), with each of the four intervals being presumed to be of equal proportion. Thus, the Managers report that, on average, organisational change is affecting the jobs of Secretaries to a slightly greater than 'moderate' degree, with some 24.8% recording that secretarial tasks have undergone minor or no change, and 31.2% reporting that such change has been marked or considerable:

TABLE 8.1: Degree of Change to Secretarial Job Roles					
				Valid	Cum
Value Label	Value	Frequency	Percent	Percent	Percent
Not At All	1	3	2.7	2.8	2.8
Minor Degree	2	24	21.4	22.0	24.8
Moderate Degree	3	48	42.9	44.0	68.8
Marked Degree	4	24	21.4	22.0	90.8
Considerable Degree	5	10	8.9	9.2	100
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 3.128	Median 3.000	Mode 3.000			
Std dev .954	Variance .909	Valid cases 109			

However, whilst no significant relationships can be established between the extent of organisational change and the cultural orientation of organisations, statistically significant correlations are nevertheless evident between the perceived degree of change to secretarial task roles and two of the previously identified external change factors:

TABLE 8.2: Changes to Secretarial Job Roles v/s Causes of Organisational Change									
----- SPEARMAN CORRELATION COEFFICIENTS -----									
Q07	.1271	.2292	-.0139	.2909	-.0047	.1947	.3006	.2285	.2063
	N(109)	N(109)	N(109)	N(109)	N(109)	N(109)	N(109)	N(109)	N(109)
	Sig .188	Sig .016	Sig .886	Sig .002	Sig .962	Sig .042	Sig .001	Sig .017	Sig .031
Q06_01	Q06_02	Q06_03	Q06_04	Q06_05	Q06_06	Q06_07	Q06_08	Q06_09	
(Coefficient / (Cases) / 2-tailed Significance) " . " is printed if a coefficient cannot be computed									

Hence, statistically significant Spearman correlations are evident between managerial perceptions of:

- i) the degree that secretarial job roles are being influenced by organisational change and the extent that technology is contributing to organisational change ($r=0.29, p=.002$); and
- ii) the degree that secretarial job roles are being influenced by organisational change and the extent that resource cost/availability is likewise contributing to organisational change ($r=0.30, p<.001$).

Thus, it is apparent that technological change is generally having a measurable effect on secretarial job roles (see Q06_04 TABLE 8.2). However, in Managers' assessment of such change, comparisons might possibly be drawn between the way that Secretaries currently operate and the office practices, standards of efficiency, line reporting structures and inter-departmental responsibilities that preceded the new technology. On the other hand, judgement could be based on specific efficiency improvements following the introduction of micro-computing methods. Thus, managements' perceptions of the effects of technology on secretarial job roles might reasonably range from individual productivity improvements through to the emergence of new paraprofessional task roles facilitated by modern communication processes.

Moreover, there is evidence to suggest that secretarial job roles are influenced by factors associated with resource cost or availability (see Q06_07 TABLE 8.2), implying that resultant changes in office practices, departmental structures and secretarial deployment, may ostensibly have their roots in the organisation's desire to reduce both direct and indirect overhead spend. This may arguably pose questions concerning the extent that secretarial task roles might be modified to effect overhead cost savings as opposed to addressing developmental needs at the individual, task or organisational level.

The influence of new technology on secretarial jobs:

In CHAPTER TWO the author briefly describes the evolution of new office technology and dispels early misconceptions concerning its anticipated effect on secretarial deployment. Essentially, many commentators in the late 70's to early 80's predicted that the new technology would have a dramatic affect on office staffing levels, with authors such as Siemens (1978) and Virgo (1980) forecasting as much as a 40% reduction in secretarial jobs before 1990. Thus, a number of flawed assumptions seemed to prevail regarding the nature of the technology, culminating in the misplaced belief that a statistical correlation would generally exist between the introduction of new office technology and administrative personnel displacement. Furthermore, it was widely held that:

- i) the new technology assisted the drive for ever increasing productivity through the progressive mechanisation of labour and greater division of labour;
- ii) skill polarisation would progressively occur as highly qualified technologists overruled unskilled operators (see especially Braverman, 1974; Zimbalist, 1979 ; and Cooley, 1980).

In the main, such notions have subsequently been shown to be erroneous, with secretarial and clerical employment rising steadily until 1990 and then marginally reducing in line with collective employment trends (TABLE: 2.1) - all at a time when the introduction of new office technology was accelerating. Additionally, the development of computer operating systems with intuitive graphical user interfaces (GUI's) such as MS_Windows, made micro-computing technology readily accessible to the non-technologist and placed data-processing techniques within the grasp of the typical Secretary. Thus, far from perpetuating the "Taylorism" of the office, the new technology is progressively exposing administrative support personnel to new skills, offering them the potential to control crucial aspects of business communications (Hennebach, 1989).

It is therefore, perhaps, not surprising that respondent Managers perceive new technology to be having between a moderate and marked effect on the task roles of secretarial and administrative support staff (ie., mean = 3.64 on a Likert scale extending from 1 (no change) to 5 (considerable change)). In fact, 43.8% of the Managers report the extent of change as marked, whilst a further 12.8% believe it to be considerable. On the other hand, whilst 6.4% feel such change to be comparatively little, all respondents perceive at least some level of change to secretarial job roles.

TABLE 8.3: Effect of New Technology on Secretarial Job Roles					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
No Change	1	0			
Little Change	2	7	6.3	6.4	6.4
Moderate Change	3	39	34.8	35.8	42.2
Marked Change	4	49	43.8	45.0	87.2
Considerable Change	5	14	12.5	12.8	100
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 3.642	Median 4.000	Mode 4.000			
Std dev .788	Variance .621	Valid cases 109			

In testing for correlative associations, no statistically significant relationship can be detected between the extent that new technology is affecting Secretaries' jobs and their organisations' industrial category or geographic location. Neither does there appear to be any statistically significant correlation between the extent that new office technology is affecting their jobs and the departmental functions in which Secretaries are employed.

Perhaps surprisingly, there is also no statistically significant connection between the perceived effect of new office technology on secretarial jobs and any of the identified cultural orientations, yet it is intuitively felt that a link with technologically oriented culture might be evident. However, the associated Spearman correlation coefficient of $r=0.19, p=.048$ computed from the Managers' survey, does not substantiate the notion that the influence of new technology on secretarial task roles might somehow relate to the organisation's technological orientation.

Nevertheless, a fair correlation was evident between the extent that secretarial task roles are affected by new technology and the extent that Secretaries' jobs are also influenced by other forces for organisational change ($r=0.31, p<.001$ - Spearman).

TABLE 8.4: Influence of Organisational Change v/s Influence of Technological Change		
-----SPEARMAN CORRELATION COEFFICIENTS-----		
Q09	.3134	
	N(109)	
	Sig .001	
	Q07	
(Coefficient / (Cases) / 2-tailed Significance) " . " is printed if a coefficient cannot be computed		

Thus, new office technology appears to be lending support to wider organisational change, and perhaps the extent that new technology is influencing secretarial task roles reasonably reflects the level of such change.

Hence, the two dimensions may commonly go hand in hand, arguably supporting the proposition that new technology has as much to do with supporting the implementation of wider organisational change as it does the enhancement of personal productivity. This leads the author to suppose that things may have moved on since Cox (1986) reported that ".....office automation systems hardly even address office productivity at all" but are ".....used by the individuals in an office to enhance their personal productivity". Thus, whilst Cox observed that organisations had ".....barely begun to tap the potential of

computers as tools for helping individuals cooperate towards a common goal", there now appears plausible evidence to the contrary.

Consequently, although new office technology doubtlessly results in secretarial time saving and increased productivity (Hepburn, 1991), it may essentially be instrumental in perhaps enabling, supporting and accelerating wider organisational change.

The influence of organisational change on secretarial career opportunities:

However, whilst Managers report that organisational and technological change are influencing secretarial task roles to a greater than moderate degree, it is perhaps surprising that approximately half of the respondent Managers (ie., 48.6%) do not perceive that career opportunities for Secretaries have changed by any measurable extent over the previous five years. Nonetheless, 30.3% do consider that there are more opportunities for Secretaries, whilst a further 2.8% believe them to be considerably more. Although some 18.3% of the Managers report that organisational change is resulting in less secretarial career opportunities, none of the respondents feel that such opportunities are considerably less.

TABLE 8.5: Career Opportunities Arising from Organisational Change					
				Valid	Cum
Value Label	Value	Frequency	Percent	Percent	Percent
Considerably More	1	3	2.7	2.8	2.8
More	2	33	29.5	30.3	33.0
About The Same	3	53	47.3	48.6	81.7
Less	4	20	17.9	18.3	100
Considerably Less	5	0			
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 2.826	Median 3.000	Mode 3.000			
Std dev .756	Variance .571	Valid cases 109			

Therefore, on average, secretarial and administrative support staff are seemingly being presented with slightly more career opportunities as a result of organisational change (mean = 2.83 on a Likert scale extending from 1 (considerably more) to 5 (considerably less) and with 3 (about the same) representing the central position). From the average perspective this might appear to fly in the face of Hennebach (1989) and others who have

observed or predicted the movement of Secretaries into paraprofessional (horizontal job enlargement) or supervisory (vertical role integration) functions as a result of organisational change. Nonetheless, the fact that approximately one third of respondent Managers *do* clearly observe more career opportunities for secretarial and administrative staff does perhaps add weight to Hennebach's conclusions.

Areas in which Secretaries are becoming involved in horizontal job enlargement (HJE):

In order to establish whether or not secretarial opportunities might be function specific or occurring across the spectrum of organisational activity, Managers were asked to assess the degree, by given area, that secretarial and administrative support staff are becoming involved in horizontal job enlargement. HJE was defined to survey recipients as occurring "when an employee regularly undertakes work normally considered to be outside of his/her task role". Additionally, it was described as being "typically of a functional nature (eg., finance, personnel, marketing, public relations) and may, but not necessarily, have previously been actioned by professionally qualified or specialist staff".

Managers were requested to record their observations on a series of Likert Scales extending from 1 (not at all or n/a) to 5 (considerable degree) - the following table (TABLE 8.6) displaying the results in descending order of functional involvement, with the mean rank order computed using Friedman's model for nonparametric ANOVA. In this instance a Cronbach Alpha reliability analysis showed adequate between-item consistency to facilitate the comparison of arithmetic means (standardised correlation index 0.9086).

TABLE 8.6:		Secretarial Exposure to HJE by Functional Area							
Functional Area	1	2	3	4	5	N	SD	Mean	Rank
Central Administration	20	37	37	18	0	112	0.97	2.47	7.58
Personnel	29	30	32	16	5	112	1.15	2.45	7.32
Sales & Marketing	39	32	20	18	3	112	1.17	2.23	6.68
Data Processing	38	32	28	14	0	112	1.04	2.16	6.50
Finance	40	29	30	12	1	112	1.06	2.15	6.34
Quality Control	52	23	22	11	4	112	1.18	2.04	6.00
Purchasing	55	25	17	15	0	112	1.09	1.93	5.71
Public Relations	53	30	17	12	0	112	1.03	1.89	5.66
Production	71	16	14	10	1	112	1.06	1.70	4.96
Research & Develop't	70	20	14	7	1	112	0.98	1.65	4.77
Design	76	16	15	4	1	112	0.92	1.55	4.48
1 = not at all or n/a; 2 = minor degree; 3 = moderate degree; 4 = marked degree; 5 = considerable degree									

From TABLE 8.6 it is apparent that HJE has occurred to a greater extent in certain functional areas than others and several reasons for this may be surmised: Essentially, the functions that occupy the higher places within the ranking order appear to be those that might typically have the highest administrative content. Thus, those activities that are balanced in favour of less administrative elements seem to figure progressively lower in the ranking order, with the lower positions occupied by activities whose principal content might be correspondingly alien to secretarial personnel.

This perhaps suggests that ease of implementation is an important component in the adoption of HJE. Associated considerations might therefore relate to the existing knowledge, skills and abilities of individuals; cost of training; time-scale of integration; and the enhanced efficiency and flexibility that HJE might provide. Nevertheless, other clues are also present in the various correlations that emerge from the data:

TABLE 8.7: HJE by Functional Area v/s Causes of Organisational Change									
----- SPEARMAN CORRELATION COEFFICIENTS -----									
Q12_05	-.0841 N(109) Sig .385	.0673 N(109) Sig .487	.0438 N(109) Sig .651	.2021 N(109) Sig .035	.2112 N(109) Sig .027	.2710 N(109) Sig .004	.4136 N(109) Sig .000	.1928 N(109) Sig .045	.2573 N(109) Sig .007
Q12_06	-.1387 N(109) Sig .150	.0442 N(109) Sig .648	.0350 N(109) Sig .718	.0282 N(109) Sig .771	.3601 N(109) Sig .000	.2022 N(109) Sig .035	.2642 N(109) Sig .006	.1362 N(109) Sig .158	.0860 N(109) Sig .374
Q12_07	.0336 N(109) Sig .729	.1614 N(109) Sig .094	.0049 N(109) Sig .960	.0973 N(109) Sig .314	.1116 N(109) Sig .248	.1996 N(109) Sig .037	.1635 N(109) Sig .089	.2659 N(109) Sig .005	.1644 N(109) Sig .088
Q12_10	-.1476 N(109) Sig .126	.0418 N(109) Sig .666	.0221 N(109) Sig .819	.1134 N(109) Sig .240	.2459 N(109) Sig .010	.1192 N(109) Sig .217	.1901 N(109) Sig .048	.1996 N(109) Sig .037	.2014 N(109) Sig .036
Q12_11	.0158 N(109) Sig .871	.2593 N(109) Sig .006	.1163 N(109) Sig .228	.1056 N(109) Sig .274	.2375 N(109) Sig .013	.2193 N(109) Sig .022	.2342 N(109) Sig .014	.1244 N(109) Sig .198	.1741 N(109) Sig .070
	Q06_01	Q06_02	Q06_03	Q06_04	Q06_05	Q06_06	Q06_07	Q06_08	Q06_09

From the above table it might seem that the reasons driving organisational change within a company could have some bearing on the functional areas in which horizontal job enlargement is being implemented.

For example, a statistically significant correlation exists between the degree that

secretarial personnel are becoming involved in the *personnel* function (Q12.05) and

- ◆ efficiency improvements (Q6.06) - $r=0.27, p=.004$
- ◆ resource cost or availability (Q6.07) - $r=0.41, p<.001$
- ◆ decentralisation (Q6.09) - $r=0.26, p=.007$

The statistically significant correlation with efficiency improvements seemingly lends support to Hennebach's (1989) observation that companies are increasingly utilising secretarial staff to undertake some of the more procedural activities within specialist functions. In the case of the personnel function, such elements might include; the maintenance of personnel records and statistics, grievance and disciplinary memoranda, organising training events, holiday planning, formulating job specifications, monitoring pay-role, etc., much of which might previously have been actioned by a personnel specialist. Hence, there is an apparent efficiency benefit insofar as the human resource executive may be extricated from repetitive, time-consuming, yet essential tasks in order to focus on more critical issues.

Additionally, the organisation may perceive a human resource cost benefit in creating the support conditions whereby the day-to-day demand for comparatively expensive expertise might be minimised. Thus, a statistically significant correlation between the adoption of HJE within the personnel function and resource cost and availability is perhaps again indicative of the financial motivation behind the adoption of horizontal job enlargement.

Nevertheless, the correlation with decentralisation does suggest that the availability of a paraprofessional personnel skill-base might assist the decentralisation of the corporate entity in various ways insofar as it may, for example:

- i) enable a centrally located personnel function to be administered by paraprofessional staff, thus freeing HR specialists to fulfil peripatetic roles throughout the various divisions; or conversely
- ii) enable centrally located HR specialists to overview a group personnel function, administered at divisional level by paraprofessional staff.

Thus, the implementation of HJE does appear to be influenced by the nature of the change that the organisation is undergoing and TABLE 8.7 depicts other functional areas where differing change factors might perhaps be initiating horizontal job enlargement.

This may be seen in the following, where a statistically significant correlation is similarly evident between horizontal job enlargement within the *production* function and

- ◆ foreign competition (Q6.05) - $r=0.36, p<.001$
- ◆ resource cost or availability (Q6.07) - $r=0.26, p=.006$

However, whilst the influence of foreign competition might tend to be sector specific (see previous chapter), it is nevertheless likely that the primary rationale for HJE within the production function will relate to the control of quality and cost - the latter reflected in its correlation with resource cost and availability. Thus, in order to maintain a competitive position, organisations may need to review their manufacturing methods and emulate the production control processes of foreign contenders. This in turn might lead to the deployment of administrative support staff in related activities such as the progressing of projects, the monitoring of material shortages and work-in-progress, the generation of throughput and quality statistics and the maintenance of associated control systems, etc.

Also, in evaluating possible motives behind horizontal job enlargement within the *public relations* function, the Managers' survey reveals a statistically significant correlation with

◆ legal or political pressure (Q6.08) - $r=0.27, p=.005$

This may infer a gender issue where, for example, anti-discriminatory legislation could perhaps encourage the movement of secretarial personnel into prominent front-of-house positions as public demonstrations of organisational egalitarianism.

Once again this might seem to point to horizontal job enlargement being a somewhat reactive process and is possibly echoed in the *sales and marketing* activity where a statistically significant correlation is revealed between this activity function and

◆ changing markets (Q6.02) - $r=0.26, p=.006$

This perhaps indicates that organisations may be utilising secretarial staff to strengthen sales and support teams as they move away from traditional and/or established markets. Complementary activities might subsequently include customer enquiries and telesales support as organisations perhaps ascertain that certain products may be more efficiently marketed utilising telecommunication methods. For example, Kotler (1994) posits that telemarketers exceed the contact rate of external sales representatives by a factor of 12.5:1 and cites the success of Raleigh Bicycles where salesforce travel costs were reduced by 50% and first-quarter sales increased by 34% as a result of adopting telemarketing practices.

However, a suspicion nevertheless persists that the instigation of HJE programmes may tend to be reactive processes rather than forming part of a continuous professional development programme to prepare the individual and organisation for future opportunities and challenges. It might also follow that organisations may be viewing secretaries primarily as a peripatetic extension of the work-force, thereby facilitating a less costly alternative to employing professionally qualified or traditionally skilled operatives.

The degree that secretarial training programmes are intended to assist HJE:

Of the 112 respondent Managers, 19.6% record that their organisations do not, to any degree, intend horizontal job enlargement to be a dimension of their secretarial training programmes (TABLE 8.08). Nonetheless, 10.7% report that training for horizontal job enlargement figures to either a marked or considerable degree in the raison d'etre of such programmes (*value 4 + value 5*), whilst the majority of organisations (ie., 69.6%) intend secretarial training to assist HJE to a minor or moderate extent (*value 2 + value 3*):

TABLE 8.8: Degree that Secretarial Training is Intended to Assist HJE					
				<i>Valid</i>	<i>Cum</i>
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Not At All	1	22	19.6	19.6	19.6
Minor Degree	2	41	36.6	36.6	56.3
Moderate Degree	3	37	33.0	33.0	89.3
Marked Degree	4	9	8.0	8.0	97.3
Considerable Degree	5	3	2.7	2.7	100
		-----	-----	-----	
Total		112	100	100	
Mean 2.375	Median 2.000	Mode 2.000			
Std dev .978	Variance .957	Valid cases 112			

In testing for relationships between "training for HJE" and industrial sector, geographic location and organisational culture, no statistically significant correlations are apparent and therefore earlier notions that such training needs might have a sectoral or regional dimension cannot be substantiated. However, in investigating the possible effect of organisational change on secretarial training, it is evident that both technological change (Q6.04) and change resulting from resource cost or availability (Q6.07) might induce organisations to train secretarial and administrative support staff for horizontal job enlargement ($r=0.24, p=.012$ and $r=0.27, p=.004$ respectively):

TABLE 8.9: Training Intended to Assist HJE v/s Organisational Change		
----- SPEARMAN CORRELATION COEFFICIENTS -----		
Q13	.2409	.2710
	N(109)	N(109)
	Sig .012	Sig .004
	Q06_04	Q06_07
(Coefficient / (Cases) / 2-tailed Significance)		
" ." is printed if a coefficient cannot be computed		

Furthermore, a statistically significant correlation exists between the degree that secretarial training programmes are intended to assist HJE and the degree that organisational change is affecting the job roles of secretarial staff. Hence, a correlation coefficient of $r=0.34, p<.001$ - Spearman, indicates a 'fair' likelihood that

- a) the more Secretaries jobs are influenced by organisational change, the more organisations correspondingly gear secretarial training towards HJE; or
- b) the more organisations support HJE development, the more that opportunities occur to utilise secretarial staff to reconcile change issues.

Accordingly, the former is a somewhat reactive process and the latter essentially strategic, yet it is nonetheless apparent that the degree to which an organisation's secretarial personnel are being exposed to HJE might have some direct bearing on that organisation's intention to support it with appropriate training. This is illustrated in the following Spearman correlation table (TABLE 8.10), correlating the degree to which secretarial training programmes are intended to support HJE with the degree to which Secretaries have been exposed to HJE within various functional areas:

TABLE 8.10: Training Intended to Support HJE v/s Secretarial Exposure to HJE by Area	
Central Administration	$r=0.5588, p<.001$
Data Processing	$r=0.4709, p<.001$
Design	$r=0.2101, p=.026$
Finance	$r=0.4573, p<.001$
Personnel	$r=0.5211, p<.001$
Production	$r=0.2769, p=.003$
Public Relations	$r=0.3552, p<.001$
Purchasing	$r=0.2973, p<.001$
Quality Control	$r=0.4269, p<.001$
Research & Development	$r=0.2389, p=.011$
Sales & Marketing	$r=0.3784, p=.001$

Thus, there is a 'fair' to 'good' likelihood that organisations who have implemented a measure of HJE likewise endeavour to tailor their secretarial training accordingly. It is also apparent that a relationship exists between the degree that such training programmes are intended to assist HJE and the degree to which secretarial training programmes are similarly intended to assist the introduction of vertical role integration (VRI). Here, a statistically significant correlation coefficient of $r=0.67, p<.001$ - Spearman, implies a tendency for those companies initiating horizontal job enlargement to be correspondingly initiating vertical role integration.

This might perhaps suggest that HJE and VRI may very well be parallel practices; possibly exhibiting similarities in terms of the activity functions in which they are being applied and even perhaps in the degree to which they are perceived to offer secretarial personnel wider opportunities for personal fulfilment or career advancement. It may also mean that the perceived benefits to the organisation are perhaps common to both vertical and horizontal processes.

The areas in which Secretaries are becoming involved in vertical role integration:

As in the case of HJE, Managers were asked to assess the degree, by given area, that secretarial and administrative support staff are becoming involved in vertical role integration. VRI was defined to survey recipients as occurring "when an employee regularly undertakes work of a supervisory or monitorial nature normally considered to be outside of his/her task role". Additionally, it was described as perhaps involving "deputising for a superior, accepting responsibility for a project, monitoring quality, measuring work output, etc. and perceivably, but not necessarily officially, raises the individual's level of authority".

As in the case of HJE, Managers were requested to record their observations on a series of Likert scales extending from 1 (not at all) to 5 (considerable degree), after which a Cronbach Alpha reliability analysis was undertaken to ensure sufficient between-item consistency to validate comparison of the arithmetic means.

TABLE 8.11: Secretarial Exposure to VRI by Functional Area									
Functional Area	1	2	3	4	5	N	SD	Mean	Rank
Personnel	23	18	45	20	3	109	1.092	2.651	7.610
Central Administration	22	29	42	15	1	109	0.996	2.486	7.000
Sales & Marketing	30	27	26	23	3	109	1.183	2.468	7.020
Data Processing	33	25	28	21	2	109	1.163	2.394	6.680
Quality Control	44	15	30	15	5	109	1.255	2.284	6.320
Finance	30	36	31	10	2	109	1.020	2.248	6.210
Purchasing	49	21	24	14	1	109	1.129	2.055	5.660
Public Relations	48	26	25	9	0	108	1.008	1.954	5.490
Production	65	12	18	12	2	109	1.164	1.844	5.030
Research & Develop't	66	13	20	9	1	109	1.077	1.771	4.740
Design	67	23	15	4	0	109	0.862	1.596	4.250
<i>1 = not at all or n/a; 2 = minor degree; 3 = moderate degree; 4 = marked degree; 5 = considerable degree</i>									

In exceeding 0.7, the resultant standardised correlation index of 0.8795 supported both

the comparison of the arithmetic mean from each observation and the computation of the mean rank order using Friedman's model for nonparametric ANOVA (see TABLE 8.11).

From this table it is apparent that similarities exist in the functional areas and degree that organisations have adopted VRI and, like HJE, those functions that occupy the higher places within the ranking order appear to be those that might typically have the highest administrative content. Equally, those activities that contain fewer administrative elements seem to be positioned lower in the ranking order, with the lowest positions seemingly occupied by activities whose principal content might not normally feature in the stereotypical experiences of secretarial and administrative support staff.

This might therefore suggest that, as in the case of HJE, ease of implementation is an important component in the adoption of vertical role integration. Thus, associated considerations may again relate to the existing knowledge, skills and abilities of individuals; cost of training; time-scale of integration; and the enhanced efficiency and flexibility that VRI might reasonably provide. Furthermore, the primary causes of organisational change within a company appear, yet again, to have some bearing on the functional areas in which vertical role integration is being implemented:

TABLE 8.12: VRI by Functional Area v/s Causes of Organisational Change									
----- SPEARMAN CORRELATION COEFFICIENTS -----									
Q10_05	-.1303 N(109) Sig .177	.1686 N(109) Sig .080	.2124 N(109) Sig .027	.2398 N(109) Sig .012	.2062 N(109) Sig .031	.1800 N(109) Sig .061	.3178 N(109) Sig .001	.1768 N(109) Sig .066	.3638 N(109) Sig .000
Q10_06	-.1318 N(109) Sig .172	.0825 N(109) Sig .394	.1105 N(109) Sig .253	.0728 N(109) Sig .452	.2993 N(109) Sig .002	.2875 N(109) Sig .002	.2180 N(109) Sig .023	.1173 N(109) Sig .225	.1567 N(109) Sig .104
Q10_10	-.0620 N(109) Sig .522	.1815 N(109) Sig .059	.1598 N(109) Sig .097	.0587 N(109) Sig .544	.3101 N(109) Sig .001	.1021 N(109) Sig .291	.1737 N(109) Sig .071	.2169 N(109) Sig .023	.1708 N(109) Sig .076
Q10_11	-.0102 N(109) Sig .916	.2952 N(109) Sig .002	.2768 N(109) Sig .004	.0135 N(109) Sig .889	.2769 N(109) Sig .004	.2170 N(109) Sig .023	.2320 N(109) Sig .015	.1548 N(109) Sig .108	.2971 N(109) Sig .002
Q06_01	Q06_02	Q06_03	Q06_04	Q06_05	Q06_06	Q06_07	Q06_08	Q06_09	

Firstly, statistically significant correlations are evident between VRI within the *personnel* function (Q10.05) and

- ♦ resource cost or availability (Q6.07) - $r=0.32, p=.001$

◆ decentralisation (Q6.09) - $r=0.36, p<.001$

Thus, it may be reasonably supposed that in undertaking some of the aspects of this specialist function, certain secretarial personnel are expanding their personnel authority by also accepting responsibility for various management related activities. Such responsibilities might include; management of a training budget, training vendor appraisal, supervising a remote personnel department, negotiating with suppliers of site-services (eg., cleaning and maintenance contractors), screening employment applicants, running induction programmes, etc. In a comparable manner to HJE, paraprofessional involvement may extricate human resource executives from time-consuming decision-making processes, thereby freeing them to concentrate on more crucial management issues. Similarly, it reasonably provides for the efficient use of an expensive and/or scarce management resource as well as perhaps supporting the centralisation or decentralisation of group personnel functions.

Next, considering VRI within the *production* function (Q10.06), statistically significant correlations exist with

◆ foreign competition (Q6.05) - $r=0.30, p=.002$

◆ efficiency improvements (Q6.06) - $r=0.29, p=.002$

As in the case of HJE, it is likely that the effects of foreign competition is sector specific, thereby containing its influence on the adoption of VRI to those companies who perhaps wish to emulate the production processes of their overseas competitors. However, the revelation that change induced through efficiency improvements is also significantly associated with the adoption of VRI, is perhaps further substantiation of Secretaries perceived abilities to efficiently co-ordinate aspects of the production function.

Regarding VRI within the *research & development* function (Q10.10), a statistically significant correlation is evident with

◆ foreign competition (Q6.05) - $r=0.31, p=.002$

As previously discussed, the effects of foreign competition may tend to be sector specific, yet it is perhaps feasible that an influx of competitive product may well result in a need to explore new designs, materials and technologies.

Thus, there may, for example, be a requirement to organise and co-ordinate:

- i) the collection of market research information;
- ii) the sources and specifications of alternative components and materials;
- iii) the investigation of new assembly techniques or manufacturing processes;
- iv) the compilation of associated cost structures, time scales, etc.

In the author's own company (The Hemsley Fraser Training Group) the need to undertake and control such activities can put considerable additional burden on the resources of the R&D department. As a consequence, the authority for completing such exploratory projects is frequently delegated to administrative support staff, who then perform what may loosely be considered to be the selection, recording and examination stages of the project management process.

Finally, VRI within the *sales and marketing* function (Q10.11) produces statistically significant correlations with

- ◆ changing markets (Q6.02) - $r=0.26, p=.002$
- ◆ business diversification (Q6.03) - $r=0.28, p=.004$
- ◆ foreign competition (Q6.05) - $r=0.28, p=.004$
- ◆ decentralisation (Q6.09) - $r=0.30, p=.002$

Thus, it may be reasonable to suggest that as organisations move away from traditional markets, diversify into new businesses and/or compete for market position, so might they have a corresponding need to strengthen sales and marketing support. Equally, those companies who are undergoing a process of decentralisation may have a need to establish and administer various regional sales offices and might possibly recruit or reassign administrative support personnel for a number of reasons; eg., such staff are likely to be:

- i) familiar with the culture of the organisation and its commercial aims and objectives
- ii) cognizant with many of its internal administrative procedures such as sales order processing, invoicing and the provision of appropriate management reports, etc.
- iii) proficient in oral and written communications whilst having well developed telephone and interpersonal skills
- iv) used to the notion of 'the internal customer' and therefore capable of anticipating customer expectations and demonstrating an acceptable standard of customer care
- v) comparatively knowledgeable regarding the products or services offered by the company and of the various activities involved in their purveyance
- vi) capable of assimilating supervisory duties with a minimal period of induction
- vii) sufficiently flexible to be a peripatetic extension to the sales and marketing activity.

However, such reasons may not necessarily be confined to the sales and marketing function and might equally apply to other areas of corporate activity. Thus, the observation that the rationale for VRI (and HJE) might have wider relevancy perhaps further endorses the expedient and flexible nature of the practice.

The degree that secretarial training programmes are intended to assist VRI:

Of the 112 Managers who responded to this question, 19.3% recorded that their organisations did not, to any degree, intend VRI to be a dimension of their secretarial training programmes. Nevertheless, 12.8% reported that training for vertical role integration figured to either a marked or considerable degree (*value 4 + value 5*), whilst 67.9% did intend this to a minor or moderate degree (*value 2 + value 3*).

TABLE 8.13: Degree that Secretarial Training is Intended to Assist VRI					
				Valid	Cum
Value Label	Value	Frequency	Percent	Percent	Percent
Not At All	1	21	18.8	19.3	19.3
Minor Degree	2	40	35.7	36.7	56.0
Moderate Degree	3	34	30.4	31.2	87.2
Marked Degree	4	13	11.6	11.9	99.1
Considerable Degree	5	1	.9	.9	100
	.	3	2.7	Missing	
		-----	-----	-----	
Total		112	100	100	
Mean 2.385	Median 2.000	Mode 2.000			
Sid dev .961	Variance .924	Valid cases 109			

As in the case of HJE, no statistically significant correlation is evident between "training for VRI" and industrial sector, geographic location, or organisational culture, similarly dispelling the notion that such training might have a sectoral or regional dimension. Once again, however, technological change (Q6.04) and change resulting from resource cost or availability (Q6.07) appear to be associated with some measure of training for vertical role integration ($r=0.28, p=.003$ and $r=0.24, p=.011$ respectively):

TABLE 8.14: Training Intended to Assist VRI v/s Organisational Change		
----- SPEARMAN CORRELATION COEFFICIENTS -----		
Q11	.2815	.2420
	N(109)	N(109)
	Sig .003	Sig .011
	Q06_04	Q06_07
(Coefficient / (Cases) / 2-tailed Significance) " ." is printed if a coefficient cannot be computed		

Thus, the degree that organisations are being subjected to forces for change is seemingly

reflected in the organisations initiation of training for vertical role integration. Thus, a statistically significant correlation coefficient of $r=0.29, p<.002$ - Spearman, indicates a 'fair' likelihood that:

- a) the more Secretaries jobs are influenced by organisational change, the more organisations correspondingly gear secretarial training towards VRI; *or*
- b) the more organisations support VRI development, the more that opportunities occur to utilise secretarial staff to reconcile change issues.

Therefore, it may be inferred that the more Secretaries become exposed to VRI through organisational change, the more the likelihood that organisations will correspondingly gear their secretarial training towards VRI. Moreover, the greater the degree to which secretarial training programmes are intended to support VRI the greater the degree that Secretaries might be exposed to VRI in various functional areas (TABLE 8.15):

TABLE 8.15: Training Intended to Support VRI v/s Secretarial Exposure to VRI by Area	
Central Administration	$r=0.4371, p<.001$
Data Processing	$r=0.4016, p<.001$
Design	$r=0.1983, p=.039$
Finance	$r=0.3509, p<.001$
Personnel	$r=0.4377, p<.001$
Production	$r=0.2891, p=.002$
Public Relations	$r=0.2731, p=.004$
Purchasing	$r=0.3233, p=.001$
Quality Control	$r=0.4878, p<.001$
Research & Development	$r=0.2254, p=.018$
Sales & Marketing	$r=0.3584, p<.001$

Additionally, there appears to be marked correlative similarities between:

- a) the organisation's intention to train for VRI and degree of secretarial exposure to VRI by functional area (TABLE 8.15); *and*
- b) the organisation's intention to train for HJE and degree of secretarial exposure to HJE by functional area (TABLE 8.10).

Once again this seems indicative of the parallel nature of the two processes, tentatively suggesting that organisations investing in either HJE or VRI have a similar tendency to invest in the other. Possible reasons for this have already been discussed, relating perhaps to the extent that such activities might call for knowledge, skills and abilities that Secretaries may already have; the ease with which new competencies might reasonably integrate with their existing skills; and/or the cost and efficiency benefits that can be

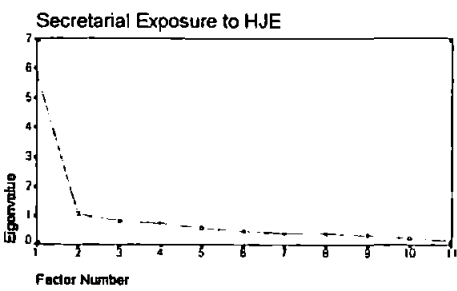
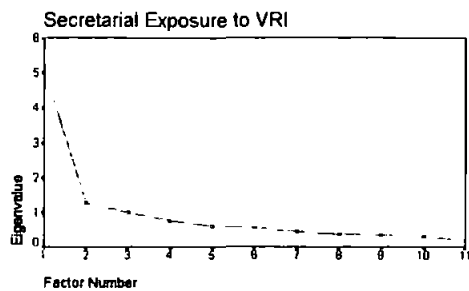
achieved over conventional recruitment programmes. Nonetheless, the proposition that HJE and VRI might be adopted by organisations as parallel processes, can perhaps be reasonably corroborated from the following Spearman correlation coefficients, where the degree that organisations are introducing secretarial staff to VRI is correlated with the degree that they are introducing such personnel to HJE within each functional area:

TABLE 8.16: Secretarial Exposure to VRI v/s Secretarial Exposure to HJE by Area	
Central Administration	$r=0.5611, p<.001$
Data Processing	$r=0.6417, p<.001$
Design	$r=0.7293, p<.001$
Finance	$r=0.5949, p<.001$
Personnel	$r=0.6966, p<.001$
Production	$r=0.7479, p<.001$
Public Relations	$r=0.7754, p<.001$
Purchasing	$r=0.8160, p<.001$
Quality Control	$r=0.8313, p<.001$
Research & Develop't	$r=0.7812, p<.001$
Sales & Marketing	$r=0.7208, p<.001$

However, whilst there may be similarities in the extent that HJE and VRI are seemingly being implemented by organisations, underlying factors that perhaps influence their adoption could differ in each case. Therefore, although the collective reasons why organisations are implementing both practices may be similar, different latent factors might be affecting decisions concerning their adoption.

Underlying factors influencing the adoption of HJE and VRI:

Thus, the following factor analysis is included to illustrate the feasibility of this notion, notwithstanding earlier cautions regarding its somewhat controversial nature. Initially, two scree plots are produced to chart the factor loadings of any latent variable that might prescribe the areas in which VRI and HJE are implemented:



From each scree plot it is perceivable that two main factors might reasonably exist: In the case of the VRI plot, factor 1 displays an Eigenvalue of 5.08 and accounts for 46.2% of the variable; and factor 2 exhibits an Eigenvalue of 1.28 and contributes 11.6% to the variable.

In the case of the HJE plot, factor 1 reveals an Eigenvalue of 5.81 and accounts for 52.8% of the variable; and factor 2 shows an Eigenvalue of 1.06 and contributes 9.7% to the variable.

Thus, a two factor analysis is undertaken and the Varimax method of rotation selected as a means of rotating the extracted matrixes and identifying the composition of the latent factors. Furthermore, in order to simplify the resultant factor matrix table for VRI and HJE (TABLE 8.17), the value for salient loading is set at 0.5 with all loadings below this value suppressed:

TABLE 8.17:				
	Vertical Role Integration		Horizontal Job Enlargement	
	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 1</i>	<i>Factor 2</i>
Central Administration	0.77242			0.74173
Data Processing	0.75581			0.67486
Design		0.71225	0.83586	
Finance	0.68091			0.75551
Personnel	0.50364			0.64112
Production		0.83555	0.80736	
Public Relations	0.51934		0.52134	
Purchasing	0.65180		0.63656	0.53166
Quality Control	0.54897	0.57194	0.59987	0.53395
Research & Develop't		0.88377	0.87537	
Sales & Marketing		0.57342		0.60101
<i>% of latent variable:</i>	<i>46.2%</i>	<i>11.6%</i>	<i>52.8%</i>	<i>9.7%</i>

In contrasting the rotated factor matrices of secretarial exposure to VRI and HJE, it appears that the principal factors underlying the adoption of each are reversed to the point of being almost mirror images of each other. Thus, the largest single factor arguably underlying secretarial exposure to vertical role integration seems to relate to areas in which traditional secretarial competencies could be effectively applied with the minimum of retraining, disruption, and cost - ie., an efficiency criteria.

This is seemingly substantiated by the factor loadings, where *central administration* contains the highest proportion of the variable, *data processing* the second, and *finance* the third, etc., with each ascending order coming marginally closer to the type of activity

that might be more readily accomplished by individuals from an administrative background.

Factor 2, on the other hand, appears to suggest a difficulty criteria and hence functional activities that are furthest removed from a stereotypical administrative skill-base such as *research & development, production, and design*, etc., exhibit the highest factor loadings. Thus, each ascending order is somewhat further removed from those activities requiring the knowledge, skills and abilities usually attributed to secretarial personnel.

Almost paradoxically, the largest single factor underlying secretarial exposure to horizontal job enlargement seems to relate to a difficulty criteria, where *research & development, design, and production* have the highest factor loadings. Alternatively, the secondary factor appears to suggest an efficiency criteria, with *finance, central administration and data processing* being the functional activities with the highest factor loadings. Thus, for the main factor, each ascending order seems to be further removed from a typical secretarial task-role, whereas each ascending order within the secondary factor appears to be progressively complementary.

It therefore appears that, in considering Secretaries for vertical role integration within various functional activities, a latent factor seems to be primarily concerned with how effective is likely to be the outcome and secondarily the ease with which the integration might be achieved. Consequently, difficulties associated with implementing vertical role integration appear somewhat subordinate to the potential benefits that might arise from it.

Conversely, when viewing Secretaries for horizontal job enlargement the principal underlying concern apparently relates to how difficult the enlargement process is likely to be, with efficiency considerations and potential benefits being somewhat secondary to the degree of difficulty that is likely to be experienced in implementing it.

This perhaps gives added weight to the notion that HJE is indeed a reactive process, usually given to adoption after easier options become untenable or uneconomic through changes in internal and/or external circumstances. VRI, on the other hand, appears to be influenced by more positive thought processes, arguably prompting the notion that considerations of individual, task and organisational benefits might considerably outweigh any perceived difficulties associated with its implementation.

Whichever, it is nevertheless apparent that organisations do have a tendency to support secretarial exposure to VRI or HJE with appropriate training. In doing so, however, the question arises whether or not such training focuses primarily on the needs of the

organisation and task, or whether the needs of the individual also play a significant part in the determination of supportive training initiatives.

The extent that secretarial training initiatives are intended to address individual needs:

With the objective of gauging the extent that training is intended to address individual needs that are ostensibly unrelated to task and organisation, Managers were asked the frequency with which their own companies sponsor the training of administrative support staff in topics that are geared to personal aspirations rather than present or future task roles.

Bearing in mind the 'top company' appellation of respondent organisations, it might seem somewhat surprising that they do not, on average, sponsor such training very often. In fact 25% of the respondent Managers state that their companies do not support individual training at all, whilst only 1.8% claim to sponsor it very often (TABLE 8.18):

TABLE 8.18: Frequency that Training is Related to Personal Aspirations					
				<i>Valid</i>	<i>Cum</i>
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Not At All	1	28	25.0	25.0	25.0
Not Very Often	2	46	41.1	41.1	66.1
Moderately Often	3	23	20.5	20.5	86.6
Quite Often	4	13	11.6	11.6	98.2
Very Often	5	2	1.8	1.8	100
		-----	-----	-----	
Total		112	100	100	
Mean 2.241	Median 2.000	Mode 2.000			
Std dev 1.016	Variance 1.031	Valid cases 112			

However, whilst it can be seen that 41.1% of respondent companies do not support personally orientated training very often, 20.5 % do so moderately often whereas 13.4% support it quite or very often (*value 4 + value 5*). Therefore, on the possibility that the provision of such training might be indicative or characteristic of those companies adopting HJE and VRI, the frequency of personally orientated training is correlated with the degree that respondent organisations intend secretarial training to support HJE and VRI. The resultant correlation coefficients are statistically significant (TABLE 8.19), adding confidence to the proposition that companies initiating horizontal job enlargement

and vertical role integration may also have a predisposition to support personally orientated training.

TABLE 8.19: Training for VRI (Q11) and HJE (Q13) v/s Training for Individual Aspirations (Q14)		
----- SPEARMAN CORRELATION COEFFICIENTS -----		
Q14	.4190	.3716
	N(109)	N(112)
	Sig .000	Sig .000
	Q11	Q13
(Coefficient / (Cases) / 2-tailed Significance) " . " is printed if a coefficient cannot be computed		

Therefore, on the premise that training for VRI and HJE might reasonably emanate from needs analysis at the task and organisational level, then companies demonstrating a predisposition to also support training geared to the aspirations of the individual are perhaps indicative of those companies adopting the three levels of analysis advocated by McGehee and Thayer (1961), Bramley (1989) and Leat and Lovell (1997).

Secretarial task roles and the organisation:

From the previous chapter it is evident that the Managers' survey does not reveal a statistically significant relationship between an organisation's cultural orientation; the type and extent of change that it is experiencing; and the industrial sector which it occupies. Furthermore, no statistically significant association is apparent between an organisation's industrial category; its geographic position; and the direction and extent of change that its Secretaries' task roles are undergoing. Consequently, none of these dimensions exhibit a substantive correlative link with organisational change and therefore it can be deduced that the effects of change on secretarial task roles are independent of sector or location.

Nonetheless, it does appear that different forces for organisational change might prescribe the functional areas in which secretarial staff are introduced to horizontal job enlargement and vertical role integration. Thus, whilst the rationale inducing certain companies to adopt HJE and VRI may be many and varied, there is some evidence to suggest that the areas of implementation may relate to the type and extent of change that such organisations are experiencing. Therefore, notwithstanding the tendency for selected areas to have a higher administrative content, the move to exact efficiency improvements or

decentralise might precipitate secretarial participation in, for example, the personnel function; whilst foreign competition or resource cost/availability issues may encourage secretarial involvement in, for example, the production function.

The introduction of HJE and VRI may therefore tend to be function specific rather than applied across the spectrum of organisational activity. Although both approaches appear to be parallel practices and may frequently be adopted in similar areas, the latent variable underpinning their adoption may very well be different. This is subsequently illustrated in a factor analysis (see TABLE 8.17) where the primary and secondary factor loadings for HJE and VRI appear to be almost reversed. Hence, the main factors underlying the adoption of HJE might primarily be concerned with difficulty aspects of implementation and secondarily with efficiency benefits, whilst VRI might primarily be concerned with efficiency benefits and secondarily with ease of implementation. This arguably supports the notion that the adoption of HJE might be a reactive process, particularly as statistical significance is evident between the degree that secretarial job roles are being influenced by organisational change and the extent that resource cost/availability is likewise contributing to such change ($r=0.30, p=<.001$ - Spearman TABLE 8.2).

Nevertheless, in instances where HJE and VRI are being introduced, there is a tendency for organisations to support their implementation with purposely targeted training (see TABLE 8.10 and TABLE 8.15). Moreover, those companies instituting HJE and VRI seemingly have a predisposition to support personally orientated training ($r=0.37, p=<.001$ and $r=0.42, p=<.001$ respectively), thereby approaching the three-level criteria advocated by McGehee, Thayer and others. However, it remains unclear whether the provision of such training is generally intended as a central feature of an organisation's human resource strategy or whether it is dictated by other dynamic conditions associated with the management of change.

However, with particular regard to technological influence, there is statistically significant evidence (TABLE 8.4) to suggest that the greater the extent of all organisational change on secretarial task roles, the greater the extent of change specifically induced by new office technology ($r=0.31, p=<.001$ - Spearman). Equally, however, there is very little evidence to suggest that information technology alone is a major catalyst for change. Instead, it generally appears to be independent of sector, culture and areas of application, perhaps displaying a tendency to be a facilitator of wider organisational change rather than a primary cause of it. Indeed, it seems likely that information technology is expanding the roles of Secretaries rather than submitting them to the dehumanising regime of

"Taylorism" predicted by earlier commentators.

This may be reasonably deduced from the Managers' observations (TABLE 8.3), where 57.8% (*value 4 + value 5*) consider new office technology to be affecting secretarial jobs to a marked or considerable extent, whilst (TABLE 8.5) shows that 33.% (*value 1 + value 2*) of respondent Managers believe that Secretaries are being presented with more or considerably more career opportunities. Nonetheless, a further 48.6% report that new office technology is resulting in about the same level of opportunity, arguably implying that its influence is more liable to be career enhancing than not.

So what of the skills, knowledge and attributes that Managers believe important in order for Secretaries to effectively perform their present and future task roles? In the following chapter, secretarial competencies are evaluated within the context of current roles and then re-examined in the light of the potential opportunities arising from horizontal job enlargement and vertical role integration.

COMPETENCIES FOR SECRETARIES PRESENT AND FUTURE JOB ROLES

Previous discussion has explored the direction that Managers of Times Top 1,000 and similar companies perceive secretarial task roles to be taking. From such analysis it is evident that differing influences for organisational change might have some bearing on the functional areas in which Secretaries are exposed to HJE and VRI, albeit that dimensions of difficulty and efficiency may underpin deployment decisions. TABLES 8.6 and 8.11 exemplify this point insofar as the mean rank order for HJE and VRI adoption appears to favour those areas with a high administrative content, arguably prescribing the knowledge, skills and attributes that a Secretary might typically possess. Moreover, TABLE 8.17 illustrates the degree of difficulty v/s benefits derived quandary in the form of a factor analysis, this indicating that latent factors underlying the introduction of HJE may have a diametric relationship to VRI. Nevertheless, similarities in their mean rank order of adoption suggest complementary processes that might predictably demand a range of skills that Managers and Secretaries readily identify. Such competencies may therefore be of fundamental importance, not only in enabling Secretaries to effectively perform their present task roles, but also in pursuing future opportunities.

The following chapter assesses secretarial proficiency in those foundation skills typically required for the National Vocational Qualification (NVQ) in Business Administration - Level 1, then establishes the importance of vocationally based competencies that might help equip secretarial staff for horizontal job enlargement and vertical role integration.

Secretarial competence in oral communications:

In evaluating the first of the skills, the survey asks Managers to assess the degree of satisfaction or dissatisfaction they feel with regard to the competence of Secretaries in oral communications. However, in order to ensure a measure of consistency in the interpretation of the question, competence in oral communications is exemplified within the body of the question as follows:

Establishing rapport and empathy with the listener

Listening, interpreting and extracting information

Using questioning skills to check understanding and seek additional information

Adopting appropriate tone, style, vocabulary
Accurately relaying information to third parties

From TABLE 9.1 the distribution of the scores may be described in terms of the mean, mode and median, which in this case are 2.14, 2.00 and 2.00 respectively. As in previous tables, *Mean* = the mean position on a Likert scale extending from 1 (very satisfactory) to 5 (very unsatisfactory), with each of the four intervals being presumed to be of equal proportion. Thus, the Managers report that, on average, the oral communication skills of secretarial staff are slightly less than quite satisfactory, with some 78.6% recording that Secretaries' oral communication skills are either quite satisfactory or very satisfactory. On the other hand, 2.7% of respondent Managers believe the standard of secretarial competence in oral communications to be either quite unsatisfactory or very unsatisfactory, and a further 18.7% of the survey group feel it to be neither satisfactory nor unsatisfactory:

TABLE 9.1: Secretarial Competence in Oral Communications					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Very Satisfactory	1	12	10.7	10.7	10.7
Quite Satisfactory	2	76	67.9	67.9	78.6
Neither Satis nor Unsatis	3	21	18.9	18.8	97.3
Quite Unsatisfactory	4	2	1.8	1.8	99.1
Very Unsatisfactory	5	1	.9	.9	100
		-----	-----	-----	
Total		112	100	100	
Mean 2.143	Median 2.000	Mode 2.000			
Std dev .656	Variance .430	Valid cases 112			

Thus, from the Managers' perception, the survey apparently indicates that secretarial proficiency in oral communications is generally of an acceptable standard and furthermore does not reveal any adverse tendency regarding competence in this area.

Secretarial competence in written communications:

For the next competency, Managers are asked to assess the degree of satisfaction or dissatisfaction they feel regarding the competence of Secretaries in written communications. For the survey, competence in written communications is exemplified as:

- Adopting an appropriate style*
- Identifying the needs of the recipient*
- Constructing grammatically correct sentences*
- Using appropriate language and format*
- Employing correct punctuation and spelling*
- Producing literature that is relevant, focused and intelligible*

From TABLE 9.2 the distribution of the scores may be described in terms of the mean, mode and median, which in this case are 2.32, 2.00 and 2.00 respectively. Thus, the Managers report that, on average, the written communication skills of secretarial staff are, once again, slightly less than quite satisfactory, with some 67.8% recording that Secretaries' written communication skills are either quite satisfactory or very satisfactory. Alternatively, 7.1% of the respondent Managers believe the standard of secretarial competence in written communications to be quite unsatisfactory, whilst 25.0% of Managers feel it to be neither satisfactory nor unsatisfactory:

TABLE 9.2: Secretarial Competence in Written Communications					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Very Satisfactory	1	8	7.1	7.1	7.1
Quite Satisfactory	2	68	60.7	60.7	67.9
Neither Satis nor Unsatis	3	28	25.0	25.0	92.9
Quite Unsatisfactory	4	8	7.1	7.1	100.0
		-----	-----	-----	
Total		112	100	100	
Mean 2.321	Median 2.000	Mode 2.000			
Std dev .713	Variance .508	Valid cases 112			

Therefore, the survey again indicates that secretarial competence in written communications is generally of an acceptable standard and no negative tendencies are revealed regarding their abilities in this subject.

Secretarial competence in elementary numeracy:

For the next competency, Managers are asked to assess the degree of satisfaction or dissatisfaction they feel with regard to the numerical abilities of Secretaries. For this question, competence in elementary numeracy is exemplified as follows:

Undertaking basic arithmetical calculations

Using simple graphs and statistics

Accurately accomplishing stock or cash audits

Maintaining basic stock or financial records

From TABLE 9.3 the distribution of the scores may be described in terms of the mean, mode and median, which in this case are 2.09, 2.00 and 2.00 respectively. Thus, the respondents report that, on average, the standard of elementary numeracy among their staff is quite satisfactory, with some 80.4% (*value 1 + value 2*) reporting that Secretaries' numeracy is either quite satisfactory or very satisfactory. On the other hand, 4.5% of the respondent Managers believe the standard of secretarial numeracy to be quite unsatisfactory, whilst 15.2% of Managers feel it to be neither satisfactory nor unsatisfactory:

TABLE 9.3: Secretarial Competence in Elementary Numeracy					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Very Satisfactory	1	17	15.2	15.2	15.2
Quite Satisfactory	2	73	65.2	65.2	80.4
Neither Satis nor Unsatis	3	17	15.2	15.2	95.5
Quite Unsatisfactory	4	5	4.5	4.5	100.0
		-----	-----	-----	
Total		112	100	100	
Mean 2.089	Median 2.000	Mode 2.000			
Std dev .692	Variance .478	Valid cases 112			

Therefore, the survey indicates general satisfaction with the standard of secretarial numeracy and does not reveal any adverse tendency regarding the capabilities of Secretaries in this discipline.

Secretaries' interpersonal and social skills:

In the next competency reviewed, Managers are asked to assess the degree of satisfaction or dissatisfaction they feel with regard to Secretaries' interpersonal and social skills. For this dimension, relevant interpersonal and social skills are exemplified thus:

Reflecting the organisation's public image and mission values

Responding appropriately to verbal and non-verbal communication

- Treating colleagues as internal customers*
- Winning over difficult or aggressive customers*
- Co-operating enthusiastically in unique or unusual situations*
- Resolving conflict and difficulties in working relationships*

From TABLE 9.4 the distribution of the scores may be described in terms of the mean, mode and median, which in this case are 2.19, 2.00 and 2.00 respectively. Here it can be seen that, on average, the interpersonal and social skills of secretarial staff are slightly less than quite satisfactory, with some 75.9% (*value 1 + value 2*) recording that Secretaries' interpersonal skills are either quite satisfactory or very satisfactory. On the other hand, 7.1% of the respondent Managers believe the standard of interpersonal skill to be quite unsatisfactory, whilst 17.0% of Managers feel it to be neither satisfactory nor unsatisfactory:

TABLE 9.4: Secretaries' Interpersonal and Social Skills					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Very Satisfactory	1	14	12.5	12.5	12.5
Quite Satisfactory	2	71	63.4	63.4	75.9
Neither Satis nor Unsatis	3	19	17.0	17.0	92.9
Quite Unsatisfactory	4	8	7.1	7.1	100.0
		-----	-----	-----	
Total		112	100	100	
Mean 2.188	Median 2.000	Mode 2.000			
Std dev .742	Variance .550	Valid cases 112			

Therefore, the survey indicates general satisfaction with Secretaries' interpersonal and social skills and does not seem to reveal any significantly adverse concerns regarding such skills.

Secretarial competence in the application of new office technology:

For the evaluation of this competency, Managers are asked to assess the degree of satisfaction or dissatisfaction they feel with regard to secretarial skill in the application of new office technology. Competence in this field is exemplified as follows:

- Text processing*
- Information monitoring and scanning*

Information filtering and selection

Information editing and summarising

Information presentation

Information storage and retrieval

From TABLE 9.5 the distribution of the scores may be described in terms of the mean, mode and median, which in this case are 1.99, 2.00 and 2.00 respectively. Thus, the Managers report that, on average, the standard of proficiency in the application of new office technology is quite satisfactory, with some 80.4% reporting that Secretaries' numeracy is either quite satisfactory or very satisfactory. Alternatively, 3.6% of the respondent Managers believe the standard of secretarial competence to be quite unsatisfactory or very unsatisfactory, whilst 16.1% of Managers feel it to be neither satisfactory nor unsatisfactory:

TABLE 9.5: Secretarial Competence with New Office Technology					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Very Satisfactory	1	28	25.0	25.0	25.0
Quite Satisfactory	2	62	55.4	55.4	80.4
Neither Satis nor Unsatis	3	18	16.1	16.1	96.4
Quite Unsatisfactory	4	3	2.7	2.7	99.1
Very Unsatisfactory	5	1	.9	.9	100
		-----	-----	-----	
Total		112	100	100	
Mean 1.991	Median 2.000	Mode 2.000			
Std dev .777	Variance .604	Valid cases 112			

Therefore, the survey indicates general satisfaction with Secretaries' application of new office technology and does not seem to reveal any significantly adverse concerns regarding their competence in this area.

Overall secretarial competence in foundation skills:

It therefore appears from the Managers' survey that the standard of secretarial competence in those foundation skills typically required for NVQ Business Administration - Level 1, is generally considered to be quite satisfactory, with no topic revealing significant degrees of weakness in secretarial proficiency. Nonetheless, a perceived order of

competence can reasonably be computed for these competencies, whilst Cronbach's Alpha reliability analysis reveals a standardised correlation index of 0.7778, demonstrating sufficient between-item consistency to facilitate the comparison of their arithmetic means. Thus, the mean rank order for secretarial competence in foundation topics may be derived using Friedman's model for nonparametric ANOVA and the following table (TABLE 9.6) portrays Managers' perceptions of Secretaries relative proficiency in such skills. It is subsequently apparent that Managers believe Secretaries to be most competent in the application of new office technology and least proficient in written communications, but it is pointed out, however, that differences between scorings are relatively small and arguably inconsequential.

TABLE 9.6: Overall Secretarial Competence in Foundation Skills			
- - - - Friedman Two-Way Anova			
	Mean	Std Dev	Mean Rank
Applying Technology	1.9911	.7769	2.67
Elementary Numeracy	2.0893	.6917	2.88
Oral Communications	2.1429	.6556	3.02
Interpersonal Skills	2.1875	.7417	3.05
Written Communications	2.3214	.7130	3.38
Cases	Chi-Square	D.F.	Significance
112	11.8518	4	.0185
Reliability Coefficients 5 items			
Alpha = .7732 Standardized item alpha = .7778			
1 = very important; 2 = quite important; 3 = neither imp nor unimp; 4 = quite unimportant; 5 = very unimportant			

Thus, there is reasonable evidence to suggest that Managers are, in the main, quite satisfied with secretarial proficiency in the prescribed foundation skills and therefore any perceived deficiencies are probably specific to individuals rather than general in nature. This arguably tilts the emphasis of the proposed needs analysis instrument away from these more elementary competencies to focus attention on those skills that are essentially vocational and perceivably central to conventional task roles and the effective implementation of HJE and VRI.

Vocationally based skills for conventional task roles, HJE and VRI:

However, in focusing on vocationally based competencies for Secretaries it is first necessary to identify the range of such skills in order to present recipient Managers with

a comprehensive listing. Whilst academic literature might assist this task, more specific information is to be found in the prospectuses and promotional literature of the various training organisations who, to some degree, specialise in the training of secretarial and administrative support staff and/or promote supervisory programmes (see APPENDIX 2).

Hence, from an examination of such material 25 major competencies are identified.

Each of the competencies are seemingly relevant to the present and future task roles of secretarial personnel and, whilst the listing does not presume to be definitive, it nevertheless represents the range of related topics that are generally on offer from commercial training organisations. Thus, it may be reasonable to suppose that the inclusion of such topics is demand influenced, perhaps endorsing the likelihood that the adoption of these programmes has been preceded by a history of commercial success and/or appropriate market research. It is correspondingly unlikely that any training company will knowingly omit subjects that might attain reasonable subscriptions and therefore the prospectuses of the examined companies arguably depict the current extent of secretarial training topics that are commercially sustainable.

Hence, these competencies are incorporated into the survey in a similar manner to the elementary foundation topics, whereupon Managers are requested to rank the importance of each skill in equipping secretarial and administrative support staff for horizontal job enlargement and/or vertical role integration. As previously, the rating instrument is a Likert importance scale ranging from 1 - very important to 5 - very unimportant, with each interval assumed to be of equal proportion. Perhaps not surprisingly, 76% of the competencies (ie., 19 in number) are adjudged, on average, to be in some measure important, with the mean rating for each topic falling between 1 - very important and 3 - neither unimportant nor important (TABLE 9.7).

Of the remaining 24%, (ie., 6 topics) the mean rating for each competency falls between 3.03 and 3.41, possibly reflecting the somewhat atypical nature of these topics when considered in the context of the stereotypical secretarial role (ie., Project Control; Negotiating; Counselling; Language Skills; Purchasing Skills; Selling Techniques). Nevertheless, their close proximity to the ambivalent neither/nor rating (3) does not suggest exclusion from the list of relevant competencies.

Furthermore, as none of the mean ratings of the competencies included in the listing are positioned much below the point of central tendency this perhaps lends a similar measure of validation to their continuing viability as commercial training topics. However, there is little doubt that certain competencies are considered by Managers to be generally more

important than others and therefore a Cronbach Alpha reliability analysis is applied to the group prior to comparing the means of the individual items and computing their mean rank order using Friedman's model for nonparametric ANOVA. The resultant standardized correlation index of 0.8715 demonstrates adequate between-item consistency to permit the comparison of their arithmetic means and facilitate the construction of a rank order table (TABLE 9.7) to display Managers' perceptions of the relative importance of each item:

TABLE 9.7: Importance of Competencies for HJE & VRI - Managers' Survey									
----- Friedman Two-Way Anova									
Competence	1	2	3	4	5	N	SD	Mean	Rank
Organising Abilities	63	38	10	1	0	112	.70	1.55	6.38
Computer Literacy	56	47	9	0	0	112	.64	1.58	7.13
Team-Working	52	55	4	1	0	112	.61	1.59	7.14
Interpersonal Skills	53	51	6	1	1	112	.71	1.63	7.27
Time Management	50	52	8	1	1	112	.73	1.67	7.66
Business Awareness	43	56	11	1	1	112	.74	1.76	8.29
Word Processing	54	42	12	3	1	112	.83	1.71	8.37
Information Technology	31	61	19	1	0	112	.69	1.91	9.70
Assertiveness	20	71	18	3	0	112	.67	2.04	10.44
Decision-Making	15	61	32	3	1	112	.75	2.23	11.78
Product Knowledge	23	52	21	11	5	112	1.05	2.31	12.13
Financial Awareness	8	61	37	5	1	112	.72	2.38	13.13
Report Writing	12	50	34	11	5	112	.97	2.53	13.87
Delegating	13	38	43	15	3	112	.95	2.62	14.44
Supervisory Skills	11	41	45	11	4	112	.92	2.61	14.46
Presenting, Briefing	6	52	34	15	5	112	.94	2.65	14.77
Quality Control	9	44	35	14	10	112	1.07	2.75	15.27
Personnel Systems	12	35	40	18	7	112	1.05	2.76	15.65
Statistical Analysis	3	39	42	20	8	112	.96	2.92	16.92
Project Control	8	26	46	19	13	112	1.08	3.03	16.99
Negotiating	1	34	44	27	6	112	.90	3.03	17.57
Counselling	1	22	58	28	3	112	.77	3.09	18.15
Language Skills	7	20	33	31	21	112	1.16	3.35	18.72
Purchasing Skills	2	22	49	22	17	112	1.00	3.27	18.84
Selling Techniques	2	20	41	28	21	112	1.05	3.41	19.49
<i>1 = very important; 2 = quite important; 3 = neither imp nor unimp; 4 = quite unimportant; 5 = very unimportant</i>									
Cases	Chi-Square		D.F.		Significance				
112	908.5755		24		.0000				

Thus an order of importance emerges for the various competencies that are considered by Managers to support HJE and VRI. These competencies arguably represent a perception of need at the task and organisational level of analysis and might reasonably provide the framework for a series of behavioural expectation scales to assist in the identification of individual performance variances. However, before developing such scales it seems prudent to test whether the Managers' perceptions of the relative importance of the competencies are similar to those of the Secretaries. The reasons for this relate to the notion that Managers might evaluate the competencies from the viewpoint of fulfilling broad task and corporate needs, whilst the Secretaries may assess them from perspectives that might be task specific yet personally orientated. Moreover, differences might also exist in their perceptions of the importance of various culture orientations, further influencing each groups' assessment of organisational need. Intuitively, if both exhibit commonality regarding their perceptions of need in addressing task needs and cultural orientation, then it is perhaps likely that the relative importance placed on the various competencies will be echoed by both populations, albeit modified by an individual need component.

Thus, in the next chapter the results of the Secretaries' survey are explored and, where appropriate, contrasted with those obtained from the Managers' survey. However, it first remains to examine the Managers' rating of skill requirements for evidence of any underlying factors that may be linking them and then review the methods currently employed by organisations in the determination of training and developmental need.

Latent variable underlying Managers' perceptions of skill requirements:

Hence, in examining the importance rankings of the various competencies (TABLE 9.7) it is reasonably evident that those competencies most associated with the stereotypical secretarial role occupy the highest positions, whilst those of a more paraprofessional nature occupy the lowest. However, the differences in rating scores for consecutive ranking positions are discernably quite small and therefore relative importance might perhaps be subtly influenced by other factors that are not necessarily task-role related.

Thus, a scree plot reveals the possible existence of a latent variable comprising two main factors, the first with an eigenvalue of 6.39 and constituting 25.6% of the variable; and the second with an eigenvalue of 3.02 and accounting for 12.1%. In undertaking a varimax rotated factor analysis and suppressing all factor loadings below .44, the competencies load neatly into the two main factors (TABLE 9.8).

Factor Scree Plot of Secretarial Competencies

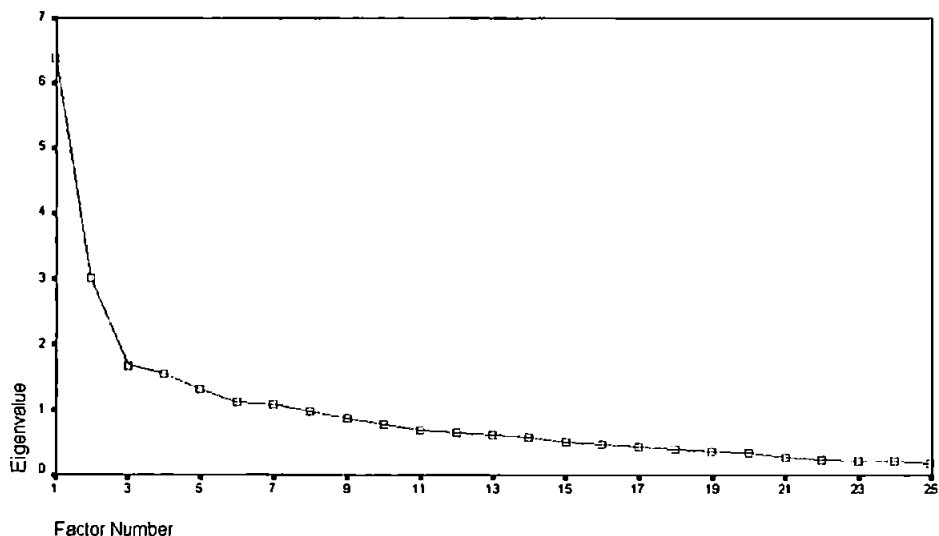


TABLE 9.8: Factor Matrix of Secretarial Competencies

		Factor 1	Factor 2
Q20_14	Presenting, Briefing	.66053	
Q20_19	Report Writing	.63821	
Q20_11	Negotiating	.62484	
Q20_16	Project Control	.61987	
Q20_15	Product Knowledge	.61130	
Q20_06	Delegating	.61118	
Q20_20	Selling Techniques	.60321	
Q20_05	Decision-Making	.57581	
Q20_21	Statistical Analysis	.57434	
Q20_04	Counselling	.56357	
Q20_18	Quality Control	.54152	
Q20_13	Personnel Systems	.51664	
Q20_24	Time Management	.48380	
Q20_17	Purchasing Skills	.47607	
Q20_07	Financial Awareness	.47427	
Q20_01	Assertiveness	.46974	
Q20_22	Supervisory Skills	.44967	
Q20_02	Business Awareness	.44153	
Q20_10	Language Skills		
Q20_25	Word Processing		.63747
Q20_09	Interpersonal Skills		.63494
Q20_12	Organising Abilities		.62983
Q20_08	Information Technology		.60695
Q20_03	Computer Literacy		.55858
Q20_23	Team-Working		.46059

Factor	Eigenvalue	Pct of Var	Cum Pct
1	6.38929	25.6	25.6
2	3.01636	12.1	37.6

Perceivably, factor 1 links those competencies that might typically be required for paraprofessional or monitorial tasks, whilst factor 2 links those that are likely to be required within a traditional secretarial task-role. In fact, the only skill that did not load into either of the factors at the predetermined suppression level was language skills, perhaps because the requirement for a second language is quite specific and therefore might be viewed as substantially irrelevant, or equally as important in the fulfilling of both paraprofessional and traditional roles. Indeed, as the United Kingdom develops its relationships with other members of the European Community, so might language skills become increasingly important to both the organisation and the individuals working within them.

However, in examining the remaining competencies that do load into either factor, it seems quite evident that Managers *do* consider the importance of these skills within the contexts of both traditional secretarial and atypical paraprofessional job-roles. The fact that the more traditional skills tend to occupy higher placings within the importance ranking table is understandable insofar as training support for HJE and VRI is averagely less than moderate in its degree (see TABLE 8.8 and TABLE 8.13). Nevertheless, the prevailing evidence that none of the identified competencies emerge as substantially unimportant is perhaps testament to the notion that all spheres of training for HJE and VRI are likely to progressively enhance employee flexibility and increase the sum of organisational expertise.

Training needs evaluation and performance appraisal mechanisms:

Thus, having established the relative importance of the various competencies from the Managers viewpoint the focus moves to several of the central elements of the study - i.e., the methods employed in the determination of training and developmental needs and the part that performance appraisal mechanisms play in the process.

Firstly, within the survey Managers are asked to rate the importance of various methods that might be employed by their organisations in evaluating the skills and attributes of secretarial and administrative support staff. The methods identified for this question result from a wide sweep of related academic literature (particularly Povall, 1991) and reasonably represent the plausible extent of contemporary needs analysis practices. As in the case of other questions, the rating instrument comprises a series of Likert scales extending from 1 - very important to 5 - very unimportant, with all intervals considered to be of equal dimension.

Perhaps not unexpectedly, management assessment scores highest in importance rating, with some 98.2% of respondents considering this method to be either important or very important. At the other end of the rating spectrum, trial and error is viewed as the least important method, with 13.4% considering it important or very important. However, observed work behaviour (eg., critical incidences) ranks significantly higher as a methodology (see TABLE 9.9), whilst the somewhat lower placed trial and error process is seemingly incongruous when it might perhaps provide a platform for broader behavioural observation as individuals encounter and react to new experiences.

TABLE 9.9: Methodologies Employed for Evaluating Skills and Attributes									
----- Friedman Two-Way Anova									
Method	1	2	3	4	5	N	SD	Mean	Rank
Management Assessment	70	40	1	1	0	112	.561	1.40	2.43
Performance Appraisal	70	29	6	4	3	112	.946	1.58	2.63
Observed Behaviour	37	55	16	2	2	112	.838	1.90	3.44
Skills Inventory	16	41	38	10	7	112	1.046	2.56	4.69
Internal Job Applications	16	41	33	14	8	112	1.101	2.62	4.86
Career Counselling	9	35	50	11	7	112	.963	2.75	5.21
Assessment Centres	4	15	53	19	21	112	1.045	3.34	6.26
Trial & Error	2	13	52	15	30	112	1.065	3.53	6.47
<i>1 = very important; 2 = quite important; 3 = neither imp nor unimp; 4 = quite unimportant; 5 = very unimportant</i>									
Cases	Chi-Square		D.F.		Significance				
112	308.7552		7		.0000				
Reliability Coefficients 8 items									
Alpha = .7310		Standardized item alpha = .7092							

Perhaps, however, the trial and error appellation may be perceived to have haphazard or unscientific connotations, therein possibly occasioning some Managers to downrate the importance of the technique.

Nevertheless, of primary interest is the fact that management assessment, performance appraisal and observed behaviour occupy the highest positions in importance ranking and it is these very techniques that almost by definition provide the components for behavioural expectation scales. Thus, it may be reasonable to suppose that the introduction of an instrument that essentially encapsulates these methodologies might be relatively easy to implement insofar as the constituent processes may already carry with

them a measure of practical credibility. However, CHAPTER FIVE reviews the various weaknesses inherent in these techniques and it is consequently essential that they are employed in a manner that negates or minimises their negative aspects. Therefore, in incorporating management assessment techniques the instrument must discourage rater bias (see especially Barnes-Farrell et al, 1991); that in embodying performance appraisal methods it must discount all aspects not directly concerned with training and development (Cascio, 1982); and that in the evaluation of employee behaviour, it must be resistant to memory, recall and encoding distortions (Woehr and Feldman, 1993). Add to these the many other biases such as halo, leniency, gender; and notions of self-fulfilling prophecies and hindsight biases etc., then the extent of the weaknesses that pervade conventional mechanisms are readily apparent (Leat and Lovell, 1997).

Nevertheless, it is arguably in the area of performance appraisal that needs analysis might be best or least served. Many organisations have formalised their appraisal processes, considering them effective mechanisms for needs analysis, whilst others have utilised them for a variety of reasons, perhaps oblivious to the demotivation that results from its imprudent linking with remuneration, performance ratings and disciplinary procedures. Thus, the question remains whether organisations are heeding the literature and focusing on the intrapersonal appraisal as a means of ascertaining training and developmental needs, or whether they continue to induce incompatibility by additionally using the process as a catch-all for interpersonal information (see Herbert and Doverspike, 1990). This question reflects that posed by Long (1986) and thus a comparison of the Managers' survey findings with Long's earlier results might reasonably reveal any change in the attitudinal or cultural climate within which contemporary appraisal procedures are typically undertaken.

The perceived purpose of performance appraisal mechanisms:

Therefore, in cases where their organisations have adopted performance appraisal practices, Managers are asked to rate the importance of a range of purposes for which these procedures may be used. This listing includes six of the seven dimensions formerly identified by Long (1986) and includes a further five purposes for which the literature, academic colleagues and various human resource practitioners believe the procedure to be also intended. Thus, "to assist career planning decisions" is omitted from the later enquiry as perhaps ambiguous, and *i)* achieving performance; *ii)* comparing employee skills; *iii)* compiling skills inventories; *iv)* motivating employees; and *v)*

encouraging staff feedback, is added. As before, the rating instrument comprises a series of Likert scales extending from 1 - very important, to 5 - very important, with all intervals considered to be of equal dimension.

Of the Managers who adequately completed the survey (ie., 112 individuals), 97 answered this question thereby indicating that 86.61% of the respondents' organisations have some form of performance appraisal procedure. However, in subsequently analysing their response, it is evident that the emphasis placed on the intended purpose of the appraisal process has substantially changed since Long's 1977 and 1985 studies.

TABLE 9.10: Intended Purpose of Performance Appraisal Procedures								
----- Friedman Two-Way Anova								
Appraisal Purpose	1	2	3	4	5	SD	Mean	Rank
Setting Performance Goals	74	19	3	0	1	.632	1.299	4.20
Achieving Performance	67	28	1	0	1	.613	1.351	4.38
Reviewing Staff Performance	60	32	5	0	0	.593	1.433	4.76
Motivating Employees	59	33	5	0	0	.595	1.443	4.78
Encouraging Staff Feedback	58	33	5	1	0	.647	1.474	4.87
Boosting Staff Performance	57	36	4	0	0	.578	1.454	4.88
Determining Training Needs	52	40	4	1	0	.631	1.526	5.20
Assessing Promotability	24	51	16	6	0	.815	2.041	7.08
Establishing Salary Levels	20	35	26	8	8	1.156	2.474	8.06
Compiling Skills Inventories	12	36	37	10	2	.914	2.526	8.76
Comparing Employee Skills	5	43	34	12	3	.880	2.639	9.04
<i>1 = very important; 2 = quite important; 3 = neither imp nor unimp; 4 = quite unimportant; 5 = very unimportant</i>								
Cases	Chi-Square	D.F.	Significance					
97	302.9813	10	.0000					
Reliability Coefficients 11 items								
Alpha = .8044			Standardized item alpha = .8203					

Long (1986) establishes in his 1977 inquiry that training and development are the principal intended purposes of such mechanisms, with more judgemental aspects associated with performance review and evaluation being marginally lower placed. In his 1985 study, training and development appears minimally subordinate to performance review, but nevertheless remains in contention as the primary purpose (TABLE 9.11).

However, in the decade or so that has passed since Long's later study, the emphasis on training and development appears to have been significantly displaced by an emphasis on

maintenance aspects of the process. Thus, in terms of importance ranking, judgemental aspects now generally assume greater prominence than remedial ones (TABLE 9.10).

TABLE 9.11: Stated aims of the performance appraisal process		
	1977 %	1985 %
To assess training and developmental needs	96	97
To help improve current performance	92	97
To review past performance	91	98
To assess future potential/promotability	87	71
To assist career planning decisions	81	75
To set performance objectives	57	81
To assess salary increases or new salary levels	39	40
Others - eg., updating personnel records	-	4
	----	----
N	230	250
Performance Appraisal Revisited	Long P (1986)	

Whilst this in no way implies a devaluation of its potential usefulness, it nevertheless continues to expose the instrument to potential rating distortions resulting from the injudicious linking of such performance related information to remuneration and promotability (see Leat and Lovell, 1997). Moreover, the fact that this linking persists and may arguably be more prevalent today is illustrated in TABLE 9.10, where 55% of respondents consider the establishment of salary levels to be a very important or quite important aspect of the performance appraisal mechanism. Similarly, 75% of the respondents continue to believe that the assessment of promotability remains a very important or quite important consideration. TABLE 9.12 combines Long's observations with current findings to chart the direction of appraisal emphasis over two decades.

TABLE 9.12: Stated aims of the performance appraisal process			
	1977 %	1985 %	1997 %
To assess training and developmental needs	96	97	92
To help improve current performance	92	97	93
To review past performance	91	98	92
To assess future potential/promotability	87	71	75
To assist career planning decisions	81	75	-
To set performance objectives	57	81	93
To assess salary increases or new salary levels	39	40	55
Others - eg., updating personnel records	-	4	*
	----	----	----
N	230	250	97
Long P (1986) & Lovell MJ (1998)	(* see following comments)		

Thus, by summing the very important (RANK 1) and the quite important (RANK 2)

columns of TABLE 9.10, a scoring pattern is obtained that is highly consistent with Long's earlier findings and therefore arguably capable of providing a basis for comparative analysis. Aside from minor variations between the various stated aims of the appraisal process, there is nevertheless one dimension that exhibits a significant change over time, this relating to the setting of performance objectives. Here it can be clearly seen that its relevance has increased from 57% in 1977 to 85% in 1985, thence to 93% in 1997. Whilst the reasons for this may be subject for conjecture, it is perhaps indicative of a shift in cultural emphasis to one that places high regard on the determination and monitoring of organisational indices of effectiveness. This, allied to a tendency for top companies' cultural orientation to appear consumer driven (see CHAPTER SEVEN) might perceivably indicate that the appraisal process has more to do with establishing objectives for (eg.) productive output, quality, customer care, etc., than it does the determination of training and developmental needs. Thus, whilst previous discussion has iterated the problems inherent in such an approach, Longenecker and Ludwig (1995 p.66) proffer further support in their contention that "most managers do not describe their ratings of subordinates in performance appraisals as completely honest or accurate". Indeed, these authors go on to list a number of previously discussed reasons why managers might upgrade or downgrade ratings, all of them in some way associated with rater concern, reward, or punishment. Nevertheless, the subject of training and development does not figure at all in their dissertation, yet they quote Feldman's (1981) belief that if the right rating instrument and procedure were found, accurate ratings would follow.

Thus, Longenecker and Ludwig's disclosures might suggest a preoccupation with MBO based practices that, whilst undeniably bringing some efficiency benefits, might nonetheless contribute to other problems typified by rater error or manipulation. In CHAPTER FOUR the various pitfalls arising from "summary person" analysis are discussed, high amongst them being the MBO activity trap which might effectively invalidate the veracity of performance rating within the appraisal process (Henderson, 1984). Hence, where practitioners know or sense that their ratings might categorise individuals as satisfactory or unsatisfactory performers and perhaps influence salaries, promotions, etc., varying types of subterfuge may be employed in order to bias the appraisal towards a mutually acceptable or predetermined outcome.

Alternatively, where the procedure is concerned with the "diagnostic person", many of the more threatening aspects of the process are perceivably excised. Thus, in exploring the reasons underlying individual performance and providing an empirical base from

which training and developmental interventions can be devised, validated and reviewed, the practitioner perceivably assumes an advisory role that is plausibly ambivalent to bias and distortion.

Furthermore, the fact that motivating employees and encouraging staff feedback figure next in importance ranking after performance related aspects does perhaps offer reasonable evidence that Managers do value a communications dimension within contemporary appraisal systems. However, Long's omission of the 'motivation' and 'staff feedback' dimensions from both 1977 and 1985 surveys might indicate that this is a comparatively new aim of the process. On the other hand, the fact that other dimensions relating to the compiling of skills inventories and skill comparisons were also omitted (or amalgamated under 'others' - see TABLE 9.12 *) might equally suggest that Long's listing was perhaps less comprehensive than expedient.

Nevertheless, the question remains whether or not Managers might be willing to adopt a new diagnostic procedure that may question some of their previous beliefs regarding the specific purpose of performance appraisal mechanisms. Upon consideration, TABLE 9.9 reveals that management assessment, performance appraisal and observed behaviour are perceived to be the most important methodologies for evaluating employee skills and attributes. Therefore, as these techniques form an integral part of the proposed diagnostic instrument it is perhaps reasonable to suppose that the new mechanism might withstand rigorous review if introduced into an appropriate environment.

Anticipated interest in the proposed diagnostic instrument:

Thus, the final two questions within the Managers' survey attempted to gauge the extent of organisational interest in a procedure for facilitating the effective diagnosis of the training and developmental needs of secretarial and administrative support staff.

The first question asked respondents if they would like to know the results of the survey, to which 63.4% replied that they would.

The second asked if they would like to be kept informed of progress in this area of research and 57.1% similarly replied in the affirmative.

It is therefore inferred that the project might reasonably receive some measure of support from approximately half of the target population and it is consequently envisaged that a sufficiently high number of opportunities will occur for the effective evaluation of the finished instrument.

A brief overview:

In general, Managers appear to be quite satisfied with the competence of Secretaries at the type of foundation skills typically prescribed for NVQ Business Administration - Level 1, although they do consider Secretaries to be most proficient in the application of new office technology and least proficient in written communications. Moreover, where vocationally based competencies are concerned, it is evident that Managers consider traditional secretarial proficiencies to be comparatively more important than paraprofessional/monitorial competencies (see TABLE 9.7), the distinction between these being perhaps obvious but nevertheless illustrated by the factor analysis (see TABLE 9.8). Here, the competencies load squarely into two factors - factor 1 perceivably representing those skills that might reasonably be required for paraprofessional/monitorial tasks and factor 2 seemingly representing traditional secretarial skills.

However, in Managements' evaluation of such skills and attributes, the most important methodology ascertained from the survey is management assessment, closely followed by performance appraisal and behavioural observation (see TABLE 9.9). Whilst these may be perceived as beneficial techniques, they nevertheless each have weaknesses which detract from their veracity. For example, management assessments may be coloured by well-documented biases, concerns and preferences; performance appraisals may be injudiciously linked with reward and punishment; and behavioural observations may suffer from encoding and recall errors (see CHAPTER FOUR). Moreover, companies appear to be increasingly using the appraisal process for the setting of performance objectives (see TABLE 9.12), therein exacerbating inherent flaws by focusing on the "diagnostic person" and introducing even more threatening elements into the process. Thus, although such techniques might collectively be central components of behavioural expectation scales, they may nonetheless be individually flawed and therefore contribute to the rating distortions reported by McAfee (1982), Herbert and Doverspike (1990) and latterly Longenecker and Ludwig (1995). Equally, the position is unlikely to improve until such time as the appropriate instrument discussed by Feldman (1981) is introduced into the procedure.

The next chapter explores the observations of the Secretaries who responded to the second survey, comparing their perceptions of organisational culture and training and developmental needs with those of the Managers. It also examines the personal career objectives of the respondents, contrasting their aspirations with those revealed by contemporary commentators.

PERCEPTIONS OF SECRETARIES CAREER OPPORTUNITIES

The target population for the Secretaries' survey comprises 1,000 individuals randomly selected from the 7,000 who visited the London Secretary Show held at the Barbican during April 1996. Where more than one person attended from the same company only one such employee was included in the pre-selection population - this person being selected on the alphabetical precedence of their surname. This alphabetical prioritisation method was further utilised to reduce the population to the required 1,000 individuals - the process being adopted on the basis that it was the simplest means of refining the sample whilst ensuring no sectoral or geographic bias. However, the fact that the show was held in London might suggest a comparatively large attendance from the South East region and this indeed proved to be the case with some 60.5% originating from this area. Nevertheless, it should be noted that many national and international companies have a major presence in the London region, this perhaps influencing the organiser's choice of venue.

In the final analysis the Secretaries' survey resulted in representations from all identified industrial categories and therefore the notional existence of a regional bias was not considered to have adversely restricted the sectoral variety of the sample population. However, it *did* limit further opportunity to test for geographical influences on organisational culture and training needs etc. but as the Managers' survey did not produce any statistically conclusive linking between such items this concern was disregarded.

Response profile and characteristics of sample:

The questionnaire was compiled in line with the previously discussed format and 1,000 copies, replete with personalised letters, mailed to the target group. By the cut-off date 339 (33.9%) had been returned, of which 332 (33.2%) were appropriately completed. Interestingly, in the Managers' survey 22 out of the 134 returns had been inadequately or incorrectly completed, whereas in the Secretaries' survey 7 out of 339 returns were inaccurate or incomplete. Thus, 16.4% of the Managers' returns were rejected as essentially unusable, whilst only 2.1% of the Secretaries' returns had similar errors of

omission. This, coupled with the the fact that the Secretaries' response rate was approximately three times greater, might suggest that levels of salience were considerably higher within the secretarial population than within the managerial one. Whilst this is not intended to imply that the integrity of the managerial survey might be questionable, it nevertheless suggests that the Secretaries' replies may be more considered, particularly where they are responding to issues of specific interest to themselves and/or related to their current and future task roles.

Nonetheless, after extracting the incomplete questionnaires the following profile of the Secretaries' organisations was compiled:

TABLE 10.1: Principal Business Activity				
<i>Standard Industrial Classification</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Agriculture, Forestry & Fishing	2	.6	.6	.6
Mining & Chemical Processing	10	3.0	3.0	3.6
Construction & Civil Engineering	15	4.5	4.5	8.1
Metal Goods, Engineering & Vehicles	8	2.4	2.4	10.5
Electrical, Electronics & Aerospace	22	6.6	6.6	17.2
Other Manufacturing Industries	67	20.2	20.2	37.3
Transport, Communications, Utilities	40	12.0	12.0	49.4
Wholesale & Petroleum Products	9	2.7	2.7	52.1
Retail, Restaurant & Drinks Trade	16	4.8	4.8	56.9
Finance, Insurance & Real Estate	56	16.9	16.9	73.8
Business Services & Hotels	20	6.0	6.0	79.8
Health , Education & Social Services	40	12.0	12.0	91.9
Public Admin., Law & Armed Services	27	8.1	8.1	100
	-----	-----	-----	
Total	332	100	100	

All industrial sectors are represented to some degree, whilst the percentage population from some sectors is not significantly dissimilar to that identified from the Managers' survey (see TABLE 7.1). As in the case of the Managers' survey, 'other manufacturing industries' was the largest sector represented and 'agriculture, forestry and fishing' the smallest.

However, as previously discussed, the Secretaries' survey reveals a larger segment from the London and South East area - some 60.5% of the respondents being employed in this region compared to the 48.2% identified by the Managers' survey (see TABLE 7.2). It is also apparent that the Secretaries' survey produced no representation from Scotland,

whilst Northern Ireland, Wales and Northern England produced, in percentage terms, approximately half of the Managers responses. However, East Anglia and the South West were better represented than in the managerial survey, whilst the responses from Midland locations were only marginally lower:

TABLE 10.2: Geographic Location					
<i>Respondent's Location</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Scotland	1	0	0	0	0
Northern Ireland	2	3	.9	.9	.9
Wales	3	6	1.8	1.8	2.7
North East England	4	6	1.8	1.8	4.5
North West	5	12	3.6	3.6	8.1
Midlands	6	41	12.3	12.3	20.5
East Anglia	7	33	9.9	9.9	30.4
South East	8	102	30.7	30.7	61.1
London	9	99	29.8	29.8	91.0
South West	10	30	9.0	9.0	100
		-----	-----	-----	
Total		332	100	100	

Cultural orientations and their importance to the organisation:

Secretaries were asked to assess the importance to their organisations of a number of cultural orientations. These same dimensions were included in the Managers' survey and are briefly defined in Chapter 7.

- S04.01 market responsive;

S04.02 innovative;

S04.03 results & goal orientated;

S04.04 technologically orientated;

S04.05 quality centred;

S04.06 employee centred;

S04.07 customer focused;

S04.08 community centred.

As in the case of the Managers' survey, it was anticipated that an analysis of variances would produce a preference ranking whereby Secretaries' perceptions of the importance that their organisations place on each orientation could be compared with those of the Managers. The resultant information would also assist in ascertaining whether the cultural orientation of the Secretaries' organisations might appear to be influenced by the industrial sector that they occupy.

In the first instance, however, a summary report reveals the Secretaries' observations to

be not totally dissimilar to those of the Managers (see TABLE 7.17):

TABLE 10.3: Secretaries View of Importance of Cultural Orientations to Organisations (N=332)								
Functional Area	1	2	3	4	5	SD	Mean	Mean_R
Market responsive	225	77	23	1	6	0.79	1.45	3.85
Innovative	148	136	40	7	1	0.78	1.73	4.78
Results & goal orientated	219	88	21	4	0	0.67	1.43	3.90
Technologically orientated	170	127	27	5	3	0.77	1.63	4.46
Quality centred	235	73	20	2	2	0.68	1.38	3.70
Employee centred	117	140	56	14	5	0.91	1.95	5.33
Customer focused	265	49	14	2	2	0.63	1.27	3.38
Community centred	56	104	122	31	19	1.06	2.56	6.61
<i>1 = very important; 2 = quite important; 3 = neither/nor imp; 4 = quite unimportant; 5 = very unimportant;</i>								

Nonetheless, before endeavouring to compare the two populations, the Secretaries' ratings of these cultural dimensions are crosstabulated with the standard industrial classification of their organisations in order to further explore the notion that industrial sector and importance of cultural orientation might be somehow linked. However, whilst the Secretaries' survey does show two statistically significant associations (see TABULATION 4 and TABLE 10.4), these are surprisingly different from those revealed by the Managers' survey (refer to TABULATION 1 and TABLE 7.5).

TABLE 10.4: Association between Market Responsiveness and Industrial Sector			
Chi-Square	Value	DF	Significance
Pearson	85.44462	48	.00071
Phi	.50731		.00071 *1
Cramer's V	.25365		.00071 *1
Contingency Coefficient	.45242		.00071 *1
Association between Customer Focused Orientation and Industrial Sector			
Chi-Square	Value	DF	Significance
Pearson	70.18524	48	.02004
Phi	.45978		.02004 *1
Cramer's V	.22989		.02004 *1
Contingency Coefficient	.41774		.02004 *1

Thus, in analysing the Secretaries' responses for a connection between a market responsive cultural orientation and industrial sector, a moderate to good association is detected ($\chi^2(48) = 85.44$; $p = .0007$; $\phi = .51$) which is not reflected in the Managers' survey. Similarly, a somewhat lower but nevertheless statistically significant association

is apparent between a customer focused cultural orientation and industrial sector ($\chi^2(48) = 70.19; p = .02; phi = .46$), which is likewise not evident from the Managers' survey. Clearly, the reason for this may be a matter for conjecture, but perhaps the Managers' perception of the wider importance of these market-place orientations is not necessarily observed by the respondent Secretaries who maybe detect a difference between theory and practice. Thus, Managers might believe that being market responsive and customer focused is essential in all business enterprises, whereas Secretaries may perceive the reality as being somewhat different, with attention to these orientations seemingly influenced by competition and consumer expectation, etc.

However, it is apparent that Managers and Secretaries do not differ greatly in their overall assessment of organisational preference for given cultural orientations. Both perceive 'customer focused' as the most important orientation and 'community centred' the least, whilst the corresponding ranking positions for the remaining orientations are seen to differ between the groups by no more than two places. In the following table (TABLE 10.5), the mean value represents the mean rank position on a five-point Likert scale extending from 1 very important to 5 very unimportant, and where scale intervals are held to be of equal proportions. The mean rank order is computed using Friedman's model for nonparametric ANOVA and the emboldened figures in parenthesis illustrates the relative importance of each orientation as a visual aid to inter-group comparison:

TABLE 10.5: Comparison of the Perceived Importance of Cultural Orientations						
	MANAGERS N=112			SECRETARIES N=332		
<i>Cultural Orientation</i>	<i>Mean</i>	<i>SD</i>	<i>M_Rank</i>	<i>Mean</i>	<i>SD</i>	<i>M_Rank</i>
Customer focused	1.11	0.37	3.06 (1)	1.27	0.63	3.38 (1)
Market responsive	1.29	0.70	3.47 (2)	1.45	0.79	3.85 (3)
Quality centred	1.31	0.60	3.65 (3)	1.38	0.68	3.70 (2)
Results/goal orientated	1.35	0.63	3.76 (4)	1.43	0.67	3.90 (4)
Employee centred	1.63	0.69	4.63 (5)	1.95	0.91	5.33 (7)
Innovative	1.75	0.75	4.93 (6)	1.73	0.78	4.78 (6)
Technology orientated	1.99	0.92	5.44 (7)	1.63	0.77	4.46 (5)
Community centred	2.78	1.03	7.06 (8)	2.56	1.06	6.61 (8)

Of particular interest, though, is the observation that Managers perceive 'technological orientation' to be comparatively less important to the organisation than do the Secretaries. Such a disparity was discussed in Chapter 7, where it was suggested that a commentator's perception of an organisation's technological orientation is perhaps influenced by his or her familiarity with technological issues. Thus, technically informed Managers may

consider their companies technological attainments to be unremarkable, whereas Secretaries within the same organisation might view the introduction of new office technology to be indicative of a strong technological bias.

On the other hand, perhaps Secretaries do indeed detect a preoccupation with technological implementation that perceivably surpasses their own importance to the organisation. If this is the case, perhaps it might account for the fact that Managers in general consider their 'employee centredness' to be positioned several places higher in importance than technological orientation, whereas Secretaries themselves rate their importance to the organisation several places lower - in fact the second least important cultural orientation.

Alternatively, it could reasonably be argued that the Managers' survey was in part targeted at a somewhat special population (ie., the Times Top 1,000 and similar high turnover companies) which may not necessarily represent the more typical organisational attitudes that may generally be observed by Secretaries. For instance, it has been posited by various commentators (more recently Legge, 1996) that top performing organisations have a greater appreciation of the notion that employee centredness is an essential contributor to organisational health and corporate success and consequently value it higher than their lesser rated contemporaries. It is also feasible that Managers might have introduced a form of social desirability bias or political correctness when rating this dimension, reflecting the notion that modern Managers are perhaps *expected* to have a high regard for their employees. Consequently, this might consciously or non-consciously influence them to score employee centredness somewhat higher than actuality, thereby contributing to the difference in scoring between the two populations.

Nevertheless, the Secretaries' survey does indicate that from a randomly derived population, such employee centredness is generally perceived as being one of the cultural orientations least valued by their organisations. However, perhaps as discussed in Chapter 7, being 'employee centred' may have a different meaning for Managers than it has for Secretaries, the former viewing it in a resource context and the latter relating it to welfare and developmental issues. Hence, the resource context might include such aspects as task training, successor development, manpower planning, staff recruitment and downsizing; whereas the welfare context might consider such aspects as personal development, salary levels, pensions, holidays, and employment terms and conditions.

Notwithstanding the possibility of such differences in perception, both populations produced a closely grouped rank order for 'customer focused', 'market responsive', 'quality centred' and 'results/goal orientated', seemingly affirming that, to a large extent, Managers

and Secretaries share similar perceptions regarding the importance to the organisation of these cultural orientations. Perhaps this further affirms organisational preoccupation with consumer driven indices of effectiveness discussed in the previous chapter and reflected in contemporary performance appraisal mechanisms.

Underlying relationships between cultural organisations:

Within CHAPTER 7 it is posited that the relative importance which organisations place on given cultural orientations might have some underlying foundation - this enquiry prompted from the evidence of comparatively large intercorrelation coefficients linking the various orientations. To a similar degree, the Secretaries' survey also reveals statistically significant intercorrelates and this is illustrated in the following matrix table:

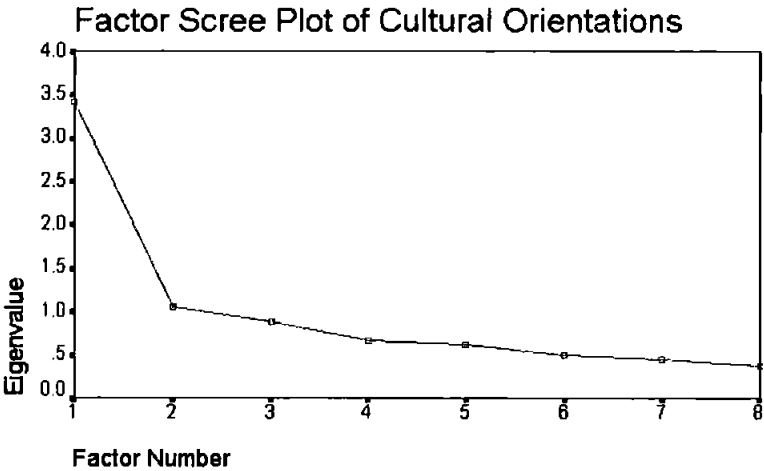
TABLE 10.6: Intercorrelation Matrix of Cultural Orientations							
---- SPEARMAN CORRELATION COEFFICIENTS ----							
S04_02	.4227**						
S04_03	.2893**	.3102**					
S04_04	.2487**	.3543**	.3160**				
S04_05	.3492**	.3380**	.2967**	.3140**			
S04_06	.2131**	.3948**	.2776**	.3415**	.4218**		
S04_07	.4191**	.3086**	.2217**	.2178**	.4878**	.3946**	
S04_08	.1671**	.2648**	.1005	.1755**	.2642**	.4560**	.2737**
	S04_01	S04_02	S04_03	S04_04	S04_05	S04_06	S04_07
* - Signif. LE .05 ** - Signif. LE .01 (2-tailed) " . " is printed if a coefficient cannot be computed							

For example, between 'innovativeness', 'market responsiveness', 'technologically orientated' and employee centredness', both surveys exhibit Spearman intercorrelation coefficients of between 0.2648 and 0.4227 for these dimensions. Feasibly, both surveys might be revealing the same underlying association.

Furthermore, within the cultural orientations examined, the highest intercorrelation coefficients determined from the two surveys are expressed in the relationship between 'quality centredness' and 'customer focused' (ie., Managers: $r=0.4376, p<.001$ and Secretaries: $r=0.4878, p<.001$). Thus, both groups may be inferring the existence of a latent connection between quality culture, customer care and various other features, the analysis of which being possibly of benefit in assessing need at the organisational level.

Factor analysis is once again adopted as an appropriate methodology for investigating the notion of a latent relationship between cultural orientations, and the following scree plot

illustrates two main factors - factor 1 displaying an Eigenvalue of 3.42 and accounting for 42.8% of the variable; and factor 2 showing an Eigenvalue of 1.05 and accounting for 13.1 % of the variable.



Thus, a two-factor solution is adopted for the factor analysis and the Varimax method of rotation selected as the means of rotating the extracted matrix and exploring the composition of the predicted factors. As in the case of the Managers' survey, the factor matrix table is simplified by setting the value for salient loading at 0.5 and suppressing all loadings below this value.

TABLE 10.7: Rotated Factor Matrix of Cultural Orientations		Factor 1	Factor 2
S04_01	Market responsive	.78767	
S04_03	Results & goal orientated	.69463	
S04_07	Customer focused	.67660	
S04_02	Innovative	.63444	
S04_05	Quality centred	.57822	
S04_04	Technologically orientated	.52752	
S04_08	Community centred		.87850
S04_06	Employee centred		.75535

From the resultant table (TABLE 10.7) it is conceivable that *Factor 1* has its highest loadings in those orientations that Secretaries might generally believe epitomise the organisational ideal. *Factor 2*, on the other hand, has its loadings in those dimensions that Secretaries perceive to be considered least important by the organisation, namely community and employee centredness, and thus might represent those dimensions that are seen to be secondary to the organisation's business and/or operational interests.

This is arguably at odds with the notional variable discussed in CHAPTER 7 and whose

characteristics are illustrated in TABLE 7.19. From the Managers' survey it may appear that organisations are perhaps inherently concerned with public image and service, whereas the Secretaries' view of organisational raison d'etre might revolve around commercial success - this perceivably taking precedence over employee and community welfare. In the final analysis, perhaps Secretaries detect an overt profit motive that disabuses any notion of organisational altruism.

The extent that technological change is affecting secretarial job roles:

As in the Managers' survey, Secretaries are asked to assess the extent that technological change appeared to be affecting their task roles. In the case of the Managers' survey, the question is posed in terms of "to what extent has new office technology changed the job roles of your company's secretarial and administrative support staff?" whereas for the Secretaries' survey the question takes the form "to what extent is the introduction of new office technology affecting your job?"

Clearly, the tense in which each question is asked does differ, insofar as the former requires Managers to consider change over the previous five years, whilst the Secretaries are not presented with a time scale due to the chance that their ages and/or work experience might not extend to the prescribed period. Nevertheless, the question is essentially similar for both surveys, and both produce a comparatively close result with regard to points of central tendency (ie., median and mode = 4.00 for both populations, with arithmetic means of 3.56 and 3.64 - see also TABLE 8.3).

TABLE 10.8: Effect of New Technology on Secretarial Job Roles					
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cum Percent</i>
Not At All	1	27	8.1	8.1	8.1
Minor Extent	2	41	12.3	12.3	20.5
Moderate Extent	3	74	22.3	22.3	42.8
Marked Extent	4	99	29.8	29.8	72.6
Considerable Extent	5	91	27.4	27.4	100
		-----	-----	-----	
Total		332	100	100	
Mean	3.560	Median	4.000	Mode	4.000
Std dev	1.239	Variance	1.534	Valid cases	332

However, whilst the average response for both groups suggests that Secretaries' task roles are changing, or have recently changed, mid-way between a moderate and marked extent, the distribution of the secretarial scores is significantly wider resulting in a remarkably larger standard deviation. Thus, in examining the extremes of both sets of responses, every Manager reports that new technology has had, or is having, at least some influence on secretarial job roles, whereas 8.1% of Secretaries perceive no change. At the other extreme, only 12.5% of Managers observe such change to be considerable, whereas 27.4% of Secretaries believe this to be so in their own case.

The influence of technological change on Secretaries' career opportunities:

With specific regard to the previous question, Secretaries were asked the extent that they believed technological change might be presenting them with less or more career opportunities.

TABLE 10.9: Career Opportunities arising from Technological Change					
				<i>Valid</i>	<i>Cum</i>
<i>Value Label</i>	<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Considerably More	1	28	8.4	8.4	8.4
More	2	128	38.6	38.6	47.0
About The Same	3	147	44.3	44.3	91.3
Less	4	23	6.9	6.9	98.2
Considerably Less	5	6	1.8	1.8	100
		-----	-----	-----	
Total		332	100	100	
Mean	2.551	Median	3.000	Mode	3.000
Std dev	.816	Variance	.665	Valid cases	332

On the whole, they reported that technological change was presenting them with more career opportunities - the average response falling mid-way between about the same and more. Some 8.7% recorded that such change was producing less opportunities, whilst 47% of respondent Secretaries felt that technological change was presenting them with more career opportunities.

The extent that other organisational change is affecting secretarial job roles:

Whilst the Managers' survey requested the degree that collective sources of change might

be influencing the job roles of secretarial and administrative support staff, the Secretaries' survey differentiated between technological and other organisational change in order to perhaps determine the extent that new office technology is perceived as the primary cause of change to secretarial task roles.

TABLE 10.10 Effect of Other Organisational Change on Job Roles					
<i>Value Label</i>		<i>Value</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Cum Percent Percent</i>
Not At All		1	22	6.6	6.6
Minor Extent		2	64	19.3	25.9
Moderate Extent		3	126	38.0	63.9
Marked Extent		4	82	24.7	88.6
Considerable Extent		5	38	11.4	100
Total			332	100	100
Mean	3.151	Median	3.000	Mode	3.000
Std dev	1.069	Variance	1.143	Valid cases	332

Indeed, when contrasting TABLE 10.10 above with TABLE 10.8 it is apparent that the extent of change Secretaries attribute to new office technology exceeds that which they attribute to other organisational change. Clearly, whilst 11.4% of respondent Secretaries believe that other organisational change is influencing their task roles to a considerable extent, 27.4% of the same population report that their jobs are being affected to a similar degree as a result of technological change.

However, in analysing the survey it can be surmised that the extent to which new office technology induces changes in secretarial jobs is unlikely to be significantly related to the location, industry, job function, or cultural orientation of the organisations in which the Secretaries work. Thus, in enquiring whether technological change is presenting them with more or less career opportunities, it may be reasoned that differences in responses might have more to do with

- i) the purpose for which the technology is intended
- ii) the perceptions and expectations of the individuals
- iii) their knowledge, skills and abilities
- iv) the attitudes of their line managers

rather than a definitive organisational or functional characteristic. Indeed, the influence of individual perceptions and management attitudes is well illustrated in a survey by the

Industrial Society (1993), where 53% of all respondent Secretaries perceived their male managers to be a barrier to their training and developmental opportunities.

Nevertheless, the contribution of technological change to Secretaries' career opportunities perhaps relates to the purpose of the technology, particularly where its introduction is accompanying and facilitating other organisational change. Thus, the fact that the technology may ostensibly be geared towards the automation of systems, the enhancement of information flows and the standardisation of organisational communications, etc., could contribute little to secretarial opportunities. However, that such technology might also be supporting wider organisational change in, for example, the centralisation or decentralisation of administrative control functions, or the layering of management structures (Hennebach, 1989), should presumably advance secretarial prospects.

The influence of other organisational change on Secretaries career opportunities:

Therefore, that which conjunctively remains to be seen is the extent that other organisational change is perceived by Secretaries to be presenting less or more career opportunities and whether these opportunities are exceeded by those apparently introduced through technological change.

In contrasting TABLE 10.11 with TABLE 10.9 it is again evident that Secretaries perceive technological change to be introducing more career opportunities than other organisational change. Thus, whilst 26.2 % of the population believe that other organisational change is presenting them with more career opportunities, 47% of respondent Secretaries report that it is technological change that is introducing more opportunities.

TABLE 10.11: Opportunities arising from Other Organisational Change					
				Valid	Cum
Value Label	Value	Frequency	Percent	Percent	Percent
Considerably More	1	9	2.7	2.7	2.7
More	2	78	23.5	23.5	26.2
About The Same	3	191	57.5	57.5	83.7
Less	4	41	12.3	12.3	96.1
Considerably Less	5	13	3.9	3.9	100
		-----	-----	-----	
Total		332	100	100	
Mean	2.913	Median	3.000	Mode	3.000
Std dev	.786	Variance	.618	Valid cases	332

Similarly, at the extreme, 2.7% attribute other organisational change with introducing considerably more opportunities, whereas 8.4% feel that considerably more opportunities are being presented through technological change.

Interestingly, the Managers' perceptions of Secretaries' career opportunities arising from collective organisational change (TABLE 8.5) is not dissimilar to the Secretaries' own assessment (TABLE 10.11). Nonetheless, the fact that Secretaries view technological change as generally affording them greater opportunities might suggest that they are perhaps endowing new office technology with career enhancing properties that are somewhat less apparent to management.

However, as suspected it is evident that a statistically significant correlation exists between the extent that Secretaries perceive technological change to be influencing their task roles and the extent that they view other organisational change to be also affecting their jobs ($r=0.33$, $p<.001$ - see TABLE 10.12).

TABLE 10.12: Extent that Technological Change is Affecting Job v/s Extent that Other Organisational Change is Affecting Job	
----- SPEARMAN CORRELATION COEFFICIENTS -----	
S07	.3281
	N(332)
	Sig .000
S05	
Coefficient / (Cases) / 2-tailed Significance) " . " is printed if a coefficient cannot be computed	

Thus, the observation that technological change might commonly accompany other organisational change, arguably infers that new office technology may have as much to do with enabling, supporting and perhaps accelerating wider organisational change as it has to do with improving personal productivity. An example of this is described in CHAPTER 7 (see section on Decentralisation), illustrating how organisations might employ new office technology to assist decentralisation to regional offices and, whilst presenting regional staff with the illusion of operational autonomy, use the technology to monitor their local decision-making (Marginson et al, 1988).

Perhaps, then, technological change and other organisational change might sometimes be inextricably linked, and it may therefore be difficult for observers to discriminate the reasons underlying technological change as opposed to other organisational change. Hence, Secretaries might become involved in the introduction and application of new

office technology, and view this as a primary source of greater opportunity, whereas Managers may perhaps see the technology as peripheral to other change forces. If this is the case it might possibly explain the apparent differences between managerial and secretarial perceptions of the career opportunities presented by technological change.

Moreover, the Secretaries' survey does reveal fair correlation between the opportunities arising from technological change and the opportunities arising from other organisational change ($r=0.44$, $p<.001$ - see TABLE 10.13), again pointing to a somewhat entwined relationship.

TABLE 10.13: Opportunities arising from Technological Change v/s Opportunities arising from Other Organisational Change	
----- SPEARMAN CORRELATION COEFFICIENTS -----	
S08	.4415
	N(332)
	Sig .000
S06	
Coefficient / (Cases) / 2-tailed Significance) " . " is printed if a coefficient cannot be computed	

This point is similarly made in CHAPTER 8, where Cox (1986) is challenged in the light of contemporary literature and the Managers' survey. It is subsequently posited that the rationale behind the adoption of new office technology appears to be changing and is perceivably as much about enhancing office and organisational efficiency as it is about enhancing personal productivity.

However, from an average perspective, other organisational change does not appear to be improving Secretaries' career opportunities to any significant extent. Exhibiting a mean response of 2.92 (see TABLE 10.11), it seems that career opportunities are generally considered by Secretaries to be 'about the same' both before and after instances of organisational change. Moreover, the average Managers' perception appears to be quite similar, with the mean response on a comparable Likert scale being 2.83 (see TABLE 8.5). Thus, the average view of both groups implies that, whilst secretarial task roles may be changing between a moderate and marked extent (see TABLE 8.3 and TABLE 10.10), career opportunities are generally perceived to be remaining relatively unchanged.

Nevertheless, the fact that 32.2% of Managers (TABLE 8.5) and 26.2% of Secretaries (TABLE 10.11) do consider that organisational change is resulting in more career opportunities again perhaps infers that career opportunities may be more a function of the

strength of secretarial ambition than the extent of organisational change. Alternatively, horizontal job enlargement and vertical role integration might perhaps have a tendency to be function specific and therefore limited to specific functions rather than generally applied throughout the organisation.

The long term career aspirations of Secretaries:

Taking these notions in turn, the strength of secretarial ambition is addressed in a question that presents Secretaries with four options regarding their long-term career objectives. This is an important question inasmuch as it is central to needs analysis at the individual level and is inextricably linked to aspects of motivation and expectancy discussed in CHAPTER FOUR. As previously, the valid population (N) is 332, with no missing cases:

The first option asks respondents whether they wish to *continue at the same level in their present position or in a similar role*, and is intended to establish the percentage of Secretaries who are essentially disinterested in changing their current career structure. 17.8% of all respondents (ie., 59) indicate this preference.

The second option asks respondents whether they wish to *develop their present role with a view to achieving more senior status and influence*, and is aimed at determining the percentage of Secretaries who own to a measure of ambition yet see their future development in terms of conventional secretarial career paths. 38.3% of all respondents (ie., 127) indicate this preference.

The third option asks respondents whether they wish to *enlarge their role to encompass other specialist activities such as personnel, finance, etc.*, and seeks to establish the percentage of Secretaries who view horizontal job enlargement as a potential avenue to career progression.

17.2% of all respondents (ie., 57) indicate this preference.

The fourth option asks respondents whether they wish to *extend their role to increase supervisory or managerial responsibilities* and is intended to establish the percentage of Secretaries who believe that vertical role integration might satisfy their career aspirations. 26.8% of all respondents (ie., 89) indicate this preference.

In reviewing these preferences, it appears that the long-term career aspirations of 56% of the respondents involve them either continuing in their present task roles or else developing their careers within established and/or traditional frameworks. Thus, within a

randomly derived population, it may be reasonably supposed that approximately half of those within secretarial occupations might harbour little ambition to develop their careers outside of the more conventional span of administrative activity. If this is the case it might arguably preclude a substantial number of Secretaries from actively pursuing any developmental opportunities that do not clearly relate to stereotypical task roles.

It may also dull their perceptions of the potential to subsume some of the paraprofessional activities that might result from the delayering of management structures and/or the devolution of centralised support functions such as purchasing, finance, personnel, etc. This could subsequently inhibit them from exploiting the emerging opportunities discussed by Hennebach (1989) and perhaps account for the average Secretary's uninspiring view of career prospects.

Therefore, in pursuing this notion it is perhaps feasible that a correlative association might exist between Secretaries' long-term aspirations and the extent to which technological and/or organisational change is seen to be presenting them with less or more career opportunities. Thus, those Secretaries whose ambitions extend beyond traditional task-roles may be more attuned to the existence of such opportunities and/or feel less threatened by any potential change to their present jobs and responsibilities.

However, no statistically significant correlation is apparent between secretarial aspirations and perceived career opportunities and therefore this notion remains unsubstantiated.

Furthermore, it fuels a suspicion that, in instances where organisational change might be presenting Secretaries with new opportunities, these may tend to relate to specific activity functions and are therefore more dependent on the functional make-up of organisations than Hennebach et al might perhaps suspect.

Opportunities for horizontal job enlargement by functional area:

It therefore seems appropriate to test whether perceived opportunities for horizontal job enlargement and/or vertical role integration might be function specific. Although these terms were not actually used in the construction of the Secretaries' survey, the associated questions were nevertheless introduced in a manner that essentially defined HJE and VRI. Thus, depending on their responses to the previous question relating to long term career objectives, those who responded favourably to the third option describing horizontal job enlargement (ie., 57 individuals) were filtered to the following question:

Given that you wish to enlarge your role to encompass other specialist activities, how

much opportunity do you realistically think you have to achieve this in each of the following?

This question was accompanied by a list of functional areas, each function referring to a five point Likert scale extending from 1 n/a or no opportunity to 5 considerable opportunity. In constructing the following (TABLE 10.14), Cronbach's Alpha reliability analysis yields a standardized correlation index of 0.7522 indicating sufficient between-item consistency to facilitate the comparison of their arithmetic means and the computation of a mean rank order using Friedman's model for nonparametric ANOVA.

TABLE 10.14: Secretarial Opportunities for HJE by Functional Area									
Functional Area	1	2	3	4	5	N	SD	Mean	Rank
Central Administration	8	7	22	12	8	57	1.21	3.09	9.24
Personnel	12	10	15	12	8	57	1.35	2.90	8.49
Data Processing	16	9	14	13	5	57	1.34	2.68	7.93
Public Relations	19	10	15	8	5	57	1.32	2.47	7.29
Sales & Marketing	26	10	11	6	4	57	1.31	2.16	6.45
Finance	25	13	12	5	2	57	1.16	2.05	6.34
Purchasing	29	10	13	1	4	57	1.21	1.97	6.14
Research & Develop't	29	10	10	7	1	57	1.16	1.97	5.87
Quality Control	31	15	7	4	0	57	0.94	1.72	5.43
Design	37	10	5	5	0	57	0.98	1.61	5.03
Stock Control & Distrib	37	10	6	4	0	57	0.94	1.60	4.98
Production	40	8	4	5	0	57	0.97	1.54	4.79
1 = n/a or no opport; 2 = minor opport; 3 = moderate opport; 4 = marked opport; 5 = considerable opport.									

Thus, sufficient information is available to contrast Secretaries' perception of the extent of opportunity presented by HJE (TABLE 10.13) with Managers' report of the actual extent that Secretaries are being exposed to HJE within similar functional areas (TABLE 8.6).

A simple comparison of means is presented in TABLE 10.15 where it is apparent that Secretaries consider *central administration* and *personnel* to be affording them the greatest opportunity to develop specialist skills. The Managers' survey similarly confirms that these functions are involving secretarial staff in HJE to the largest extent. In considering the next four ranking positions, *data processing*, *sales & marketing* and *finance* occupy rank positions 2 to 6 in both tables, albeit with transposed orders of ranking. In fact the only functional area displaying a notable difference in ranking position is the *public relations* function, where Secretaries rate their potential for horizontal job enlargement significantly higher than the actual extent of exposure

currently observed by Managers.

TABLE 10.15: Secretaries' Perception of Opportunity v/s Actual Exposure to HJE			
Secretaries	Mean	Managers	Mean
Central Administration	3.088	Central Administration	2.473
Personnel	2.895	Personnel	2.446
Data Processing	2.684	Sales & Marketing	2.232
Public Relations	2.474	Data Processing	2.161
Sales & Marketing	2.158	Finance	2.152
Finance	2.053	Quality Control	2.036
Purchasing	1.965	Purchasing	1.929
Research & Develop't	1.965	Public Relations	1.893
Quality Control	1.719	Production	1.696
Design	1.614	Research & Develop't	1.652
Stock Control & Dist'n	1.596	Design	1.554
Production	1.544	Stock Control & Dist'n	-
<i>1 = n/a or no opport; 2 = minor opport; 3 = moderate opport; 4 = marked opport; 5 = considerable opport.</i>			

Nevertheless, it is not clear whether Secretaries recognise new opportunities only after management have originated a degree of HJE, or whether they are pro-active in identifying potential opportunities that have yet to be exploited. If the latter is the case, the fact that secretarial assessment of opportunity and management observation of actuality do not precisely agree may simply reflect the time-lag between Secretaries' identification of such opportunities and management's revision of corresponding task roles. Conversely, if the former is in fact the case, the dissimilarity between secretarial and management ranking may be a measure of the difference in confidence that each might have in a Secretary's ability (or suitability) to perform a given function.

Whichever the case, there is little doubt that certain functions have absorbed HJE to a greater extent than others and several reasons for this may be surmised: Essentially, the functions that occupy the higher places within the ranking order appear to be those that might typically have the highest administrative content. Thus, those activities that are balanced in favour of less administrative elements figure progressively lower in the ranking order, with the lower positions occupied by activities whose principal content might be correspondingly alien to secretarial personnel.

This might further affirm the observation made in CHAPTER EIGHT where it is posited that ease of implementation may be an important component in the adoption of HJE. Associated considerations might therefore relate to the knowledge, skills and abilities of

individuals; cost of training; time-scale of integration; and the resultant efficiencies and flexibility that HJE might reasonably provide. Nevertheless, other clues are also present in the various correlations that emerge between the reasons driving organisational change and the various areas in which horizontal job enlargement is presently being implemented (see CHAPTER 8). Such linking also leads the author to suspect that the adoption of HJE may be a reactive process rather than forming part of a continuous professional development programme aimed at preparing the individual for future opportunities and challenges.

It might also indicate that organisations are perhaps viewing Secretaries as peripatetic extensions of the work-force, thereby facilitating a less costly alternative to employing professionally qualified or traditionally skilled operatives. Whatever, there is nonetheless clear evidence to support the notion that HJE is not considered by Secretaries to offer uniform opportunity across the spectrum of organisational activity.

Opportunities for vertical role integration by functional area:

Therefore, the analysis next considers Secretaries' perception of potential opportunity for vertical role integration with a view to determining whether, as in the case of HJE, the application of VRI might be similarly function specific. Thus, depending on their responses to the previous question relating to long term career objectives, those who responded favourably to the fourth option describing vertical role integration (ie., 89 individuals) were filtered to the following question:

Given that you wish to extend your role to include more duties of a supervisory or managerial nature, how much opportunity do you realistically think you have to achieve this in each of the following?

As in the case of HJE, this question was accompanied by a list of functional areas, each function referring to a five point Likert scale extending from 1 n/a or no opportunity to 5 considerable opportunity. In constructing the following (TABLE 10.16), Cronbach's Alpha reliability analysis yields a standardized correlation index of 0.8627 indicating sufficient between-item consistency to facilitate the comparison of their arithmetic means and the computation of a mean rank order using Friedman's model for nonparametric ANOVA. Therefore, adopting a similar approach to that utilised for HJE, opportunities for vertical role integration are examined to test whether such opportunities might, yet again, be function specific. Additionally, Secretaries' perceptions of the extent of opportunity presented by VRI (TABLE 10.16) are contrasted with Managers' report of the actual extent

that Secretaries are being exposed to VRI within similar functional areas (TABLE 8.11).

TABLE 10.16: Secretarial Opportunities for VRI by Functional Area									
Functional Area	1	2	3	4	5	N	SD	Mean	Rank
Central Administration	8	12	32	21	16	89	1.18	3.28	9.74
Personnel	19	17	21	22	10	89	1.32	2.85	8.42
Public Relations	28	21	19	13	8	89	1.32	2.46	7.49
Data Processing	34	17	22	12	4	89	1.23	2.27	7.14
Sales & Marketing	40	13	12	16	8	89	1.43	2.32	6.76
Quality Control	43	21	12	8	5	89	1.23	2.00	6.15
Finance	42	24	11	10	2	89	1.12	1.94	6.06
Purchasing	41	20	17	10	1	89	1.10	1.99	5.99
Research & Develop't	48	18	14	8	1	89	1.07	1.83	5.66
Production	57	14	12	2	4	89	1.09	1.67	5.02
Design	57	17	6	6	3	89	1.09	1.66	4.93
Stock Control & Distrib	62	13	9	4	1	89	0.93	1.53	4.65

1 = n/a or no opport; 2 = minor opport; 3 = moderate opport; 4 = marked opport; 5 = considerable opport.

Once again, a simple comparison of means is presented in TABLE 10.17 where it is apparent that Secretaries consider *central administration* and *personnel* to be affording them the greatest opportunity to develop specialist skills. The Managers' survey similarly confirms that these functions are involving secretarial staff in VRI to the largest extent, although their rank order is reversed:

TABLE 10.17: Secretaries' Perception of Opportunity v/s Actual Exposure to VRI			
Secretaries	Mean	Managers	Mean
Central Administration	3.281	Personnel	2.651
Personnel	2.854	Central Administration	2.486
Public Relations	2.461	Sales & Marketing	2.468
Sales & Marketing	2.315	Data Processing	2.394
Data Processing	2.270	Quality Control	2.284
Quality Control	2.000	Finance	2.248
Purchasing	1.989	Purchasing	2.055
Finance	1.944	Public Relations	1.954
Research & Develop't	1.831	Production	1.844
Production	1.674	Research & Develop't	1.771
Design	1.663	Design	1.596
Stock Control & Dist'n	1.528	Stock Control & Dist'n	-

1 = n/a or no opport; 2 = minor opport; 3 = moderate opport; 4 = marked opport; 5 = considerable opport.

In considering the next four ranking positions, *data processing*, *sales & marketing* and *quality control* occupy rank positions 2 to 6 in both tables, albeit with transposed orders of ranking. However, as in the case of HJE, the single functional area displaying a notable difference in ranking position is the *public relations* function, where Secretaries once again rate their potential for vertical role integration significantly higher than the actual extent of exposure currently observed by Managers. Nevertheless, there is again clear evidence that VRI is not considered by Secretaries to offer uniform opportunity across the range of activity functions.

However, it is also again apparent that similarities exist in the extent that organisations are implementing or presenting opportunities for both HJE and VRI (see especially TABLE 8.16) and this is further evident in the comparison of TABLES 8.6 and 8.11; and TABLES 10.14 and 10.16. Thus, similarities occur in the type of activities occupying the higher and lower ranking positions of both populations, suggesting that Secretaries' perception of potential opportunity equates reasonably well with Managers' report of actuality. Possible reasons for this have already been discussed, insofar as incrementally ranked activities perhaps progressively draw on the knowledge, skills and abilities that Secretaries may already have. Higher ranked activities might also be easier to integrate with existing secretarial skills and may demonstrate reasonably achievable cost and efficiency benefits. Last but not least and as discussed in chapter eight, the adoption of such activities might also stem from the type and extent of change that organisations may be widely experiencing.

Vocationally based skills for HJE, VRI and Secretaries' personal aspirations:

The previous chapter records how Managers rate various competencies in terms of their importance in equipping secretarial and administrative support staff for HJE and VRI (see TABLE 9.7). In so doing, it may be argued that Managers are effectively identifying aspects of need at both task and organisational level, whereas Secretaries are considering each competency in terms of its importance to both their task roles and their long term career aspirations. Thus, Secretaries are arguably perceiving need at the task level insofar as they are assessing the requirements of their current job roles; they are similarly perceiving need at the organisational level inasmuch as they are attempting to ascribe the prerequisite skills for horizontal job enlargement or vertical role integration; and equally they are identifying need at the individual level as they rate those competencies which they consider important for achieving their personal career objectives.

The following (TABLE 10.17) records their assessments. However, prior to tabulation, a Cronbach's Alpha reliability analysis reveals a standardised correlation index of 0.9170, this figure demonstrating sufficient between item consistency to permit the comparison of arithmetic means and the computation of each competence's mean rank order.

TABLE 10.18: Importance of Competencies for HJE & VRI - Secretaries' survey									
- - - - Friedman Two-Way Anova									
Competence	1	2	3	4	5	N	SD	Mean	Rank
Organising Abilities	249	55	26	0	2	332	.68	1.35	7.32
Interpersonal Skills	216	83	30	1	2	332	.72	1.46	8.19
Time Management	221	76	28	2	5	332	.80	1.48	8.32
Computer Literacy	213	84	33	0	2	332	.72	1.48	8.46
Word Processing	220	68	42	0	2	332	.76	1.48	8.64
Assertiveness	196	104	32	0	0	332	.67	1.51	8.69
Team-Working	204	85	38	1	4	332	.80	1.54	8.73
Business Awareness	183	103	43	0	3	332	.78	1.61	9.17
Information Technology	166	109	51	4	2	332	.82	1.70	10.07
Decision-Making	138	141	44	7	2	332	.80	1.78	10.58
Product Knowledge	114	128	72	9	9	332	.96	2.01	12.20
Delegating	103	139	71	12	6	331	.91	2.03	12.56
Supervisory Skills	112	113	79	13	5	332	1.07	2.12	13.00
Presenting, Briefing	100	126	81	13	12	332	1.01	2.13	13.20
Financial Awareness	76	141	92	15	8	332	.93	2.21	13.85
Report Writing	81	118	88	22	23	332	1.13	2.36	14.54
Personnel Systems	67	111	122	21	11	332	.99	2.39	15.02
Negotiating	65	103	117	23	24	332	1.10	2.51	15.61
Project Control	44	105	131	25	26	331	1.06	2.65	16.69
Counselling	35	109	140	24	24	332	1.01	2.68	16.98
Quality Control	34	85	143	35	35	332	1.08	2.86	18.00
Language Skills	37	68	156	32	39	332	1.10	2.90	18.00
Statistical Analysis	39	82	130	37	44	332	1.16	2.90	18.05
Purchasing Skills	25	68	154	40	45	332	1.08	3.04	18.80
Selling Techniques	22	44	136	52	78	332	1.17	3.36	20.35
<i>1 = very important; 2 = quite important; 3 = neither imp nor unimp; 4 = quite unimportant; 5 = very unimportant</i>									
Cases	Chi-Square		D.F.		Significance				
330	2377.9218		24		.0000				

Moreover, in contrasting Managers and Secretaries assessment of such competencies, it may be reasonable to posit that both populations might attribute each competence with a similar degree of importance if they share common perceptions of task and organisational

need. Thus, although the Secretaries' evaluation may additionally express need at the individual level, task and organisational need might nevertheless be perceived similarly by both groups unless there are significant differences in group perspective.

Whilst reasons for such differences may be many and varied, obvious examples might reasonably include the following:-

- i) Managers may have a more informed view of present and future need.
- ii) Managers might not fully appreciate the skill requirements of various task roles.
- iii) Managers may underestimate the capabilities of administrative support staff.
- iv) Managers might not wish to pursue certain HJE/VRI options where implementation costs and operational disruptions outweigh immediate benefits.
- v) Secretaries might have a better perception of task role requirements.
- vi) Secretaries may not be fully aware of the importance of certain skills.
- vii) Secretaries might have an unrealistic view of the opportunities presented by HJE and VRI.
- viii) Secretaries may view HJE and VRI as threatening, and disregard associated opportunities in an effort to maintain the status quo.

Nevertheless, it is quite evident that Secretaries, like Managers, consider certain competencies to be generally more important than others, and thus a rank order of importance is readily established from the data. Furthermore, in comparing the importance ratings of the Secretaries with those of the Managers it is clear that both the most and least important competencies are common to both surveys. Indeed, it is once again apparent that the skills most likely encountered within a stereotypical secretarial role occupy the highest ranking positions, with those of a seemingly atypical nature occupying the lowest.

However, before contrasting the two populations' perceptions of such competencies, it again remains to examine the Secretaries' data for evidence of any underlying factors that may perhaps be influencing their importance rating and/or causing them to be somehow selected.

Latent variable underlying Secretaries' perceptions of skill requirements:

It is noted above and in the previous chapter that those competencies most associated with stereotypical secretarial roles appear to occupy the highest positions in terms of importance ranking, whilst those of a more paraprofessional nature seem to occupy the lowest (see TABLE 9.7 and TABLE 10.18). However, the differences in rating scores for

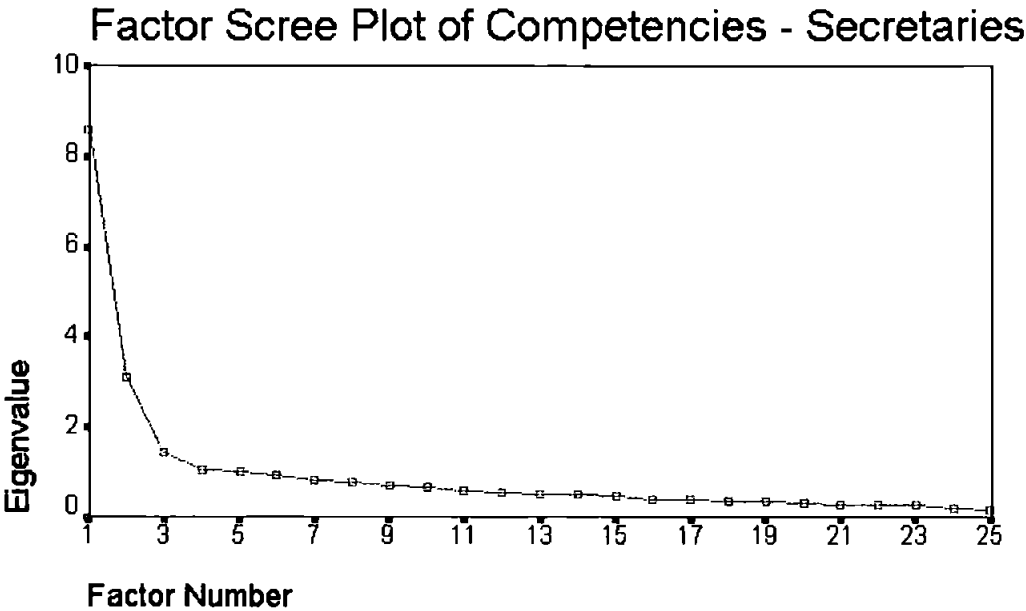
consecutive ranking positions are, in many cases, quite small and may perhaps be subtly influenced by an underlying variable.

In the scree plot over-page, the possible existence of a latent variable comprising two main factors is revealed, the first with an eigenvalue of 8.59 and constituting 34.4% of the variable; and the second with an eigenvalue of 3.13 and accounting for 12.5%. In undertaking a varimax rotated factor analysis and suppressing all factor loadings below .44, the competencies load neatly into the two main factors (TABLE 10.19).

TABLE 10.19: Factor Matrix of Competencies - Secretaries' survey			
		Factor 1	Factor 2
S12_16	Project Control	.73029	
S12_17	Purchasing Skills	.72292	
S12_20	Selling Techniques	.71589	
S12_18	Quality Control	.69462	
S12_11	Negotiating	.68711	
S12_21	Statistical Analysis	.66864	
S12_19	Report Writing	.64052	
S12_07	Financial Awareness	.59612	
S12_04	Counselling	.56659	
S12_14	Presenting, Briefing	.54314	
S12_10	Language Skills	.50632	
S12_22	Supervisory Skills	.49408	
S12_06	Delegating	.48348	.46324
S12_13	Personnel Systems	.44211	
S12_15	Product Knowledge		
S12_12	Organising Abilities		.79941
S12_09	Interpersonal Skills		.74673
S12_03	Computer Literacy		.73998
S12_24	Time Management		.69070
S12_23	Team-Working		.66178
S12_25	Word Processing		.65158
S12_01	Assertiveness		.64493
S12_08	Information Technology		.62703
S12_02	Business Awareness		.60686
S12_05	Decision-Making	.46291	.59793
Factor	Eigenvalue	Pct of Var	Cum Pct
1	8.58883	34.4	34.4
2	3.12616	12.5	46.9

This is quite similar to the varimax rotated factor analysis computed from the Managers

responses (see TABLE 9.8), where factor 1 links those competencies that might typically be required for paraprofessional or monitorial tasks, and factor 2 links those that are likely to be required within a contemporary secretarial task-role. One competence did not load into either of the factors at the 0.44 suppression level, perhaps because product knowledge might not be viewed by Secretaries to be essentially relevant to HJE, VRI or their personal aspirations. Nonetheless, decision-making and delegating load into both factors, possibly because they might seem important constituents of both paraprofessional and traditional secretarial task-roles.



Moreover, in examining the factor analyses of competencies derived from the two surveys (see TABLE 9.8 and TABLE 10.19), it seems unquestionable that both populations perceive and identify a distinction between the needs of a conventional secretarial task role and the needs of a paraprofessional or supervisory one. Thus, it is probably unlikely that many of the competencies loading into factor 1 will, in the foreseeable future, become part of a Secretary's generic training programme. More likely it will be changes in inner and outer contextual conditions that will perhaps determine the necessity for such skills rather than the decrees of a human resource programme.

However, the fact remains that needs analysis for secretarial, administrative support staff, and indeed all other personnel, must take into account all three levels of analysis in order to be effective (Leat and Lovell, 1997). Clearly, where a Secretary desires to function within a conventional task role; where that role is reasonably constant; and where the organisation has no inducement to implement HJE or VRI; then it may be considered improvident to introduce paraprofessional or supervisory training initiatives.

Conversely, where the Secretary is one of the 50% who seeks job progression; and/or whose task role is rapidly evolving; and/or whose organisation is perhaps concerned with efficiency improvements, resource costs, foreign competition, etc. (see Chapter 8); then the omission of appropriate paraprofessional and supervisory training might reasonably lead to future exposure. However, in identifying associated training topics do Managers and Secretaries essentially agree on their relative importance?

Conventional secretarial skills and their perceived importance:

Hence, perhaps the first point to consider is whether both groups appear to be identifying a similar range of competencies as being central to the conventional task role.

In examining the factor analysis of secretarial competencies as rated by the Secretaries (TABLE 10.19), it can be readily seen that the skills loading solely into factor 2 are the same skills that occupy the top nine positions in the importance ranking of competencies (TABLE 10.18), ie.,

Organising Abilities
Interpersonal Skills
Time Management
Computer Literacy
Word Processing
Assertiveness
Team-Working
Business Awareness
Information Technology

Furthermore, it has already been asserted that factor 2 seems to represent the range of skills that might be necessary to fulfil a conventional secretarial task role; and similarly posited that the highest ranked skills in terms of perceived importance appear to likewise reflect the skill requirements of a traditional Secretary. Thus, the factor analysis is seemingly exposing the latent discrimination of such tasks which are arguably prioritised via the Friedman mean rank methodology.

Turning next to the factor analysis of secretarial competencies as rated by the Managers (TABLE 9.8), it is evident that three of the above competencies are displaced from factor 2 to factor 1, specifically:-

Time Management
Assertiveness
Business Awareness

Reasons for this are clearly speculative, but might relate to a management notion that

these skills are not essentially secretarial competencies, yet might be generally perceived by Secretaries to be so. Indeed, this is perhaps supported by reducing the suppression value of the factor analysis from 0.44 to 0.40, at which point 'assertiveness' loads into each factor as follows:

		Factor 1	Factor 2
Q20_01	Assertiveness	.31455	.42019

However, disregarding the fact that these competencies do not load into factor 2 at the same suppression level, the same nine skills nevertheless occupy the highest positions in the importance ranking of competencies (TABLE 9.7), ie.,

- Organising Abilities
- Computer Literacy
- Team-Working
- Interpersonal Skills
- Time Management
- Business Awareness
- Word Processing
- Information Technology
- Assertiveness

whilst, with the exception of the latter, no more than two rank order positions separate the Managers' and Secretaries' assessments of each competence.

Therefore, the above listing is provisionally considered to represent the core skills of conventional secretarial activity and will be introduced as such into the prototype of the proposed diagnostic instrument.

Competencies and their importance to HJE and VRI:

However, whilst neither survey differentiates between the competencies required for a conventional task role, HJE or VRI, a ranking consistency nonetheless emerges between the two populations that seems to imply a logical distinction. The first is discussed in the previous section; yet when the next seven highest positions in the importance ranking of competencies are contrasted (see TABLE 9.7 and TABLE 10.18), pronounced similarities again exist between the perceptions of the two populations.

Thus, both groupings contain the same seven competencies whilst, with the exception of 'financial awareness', no more than two rank order positions separate the Managers' and Secretaries' assessment of the relative importance of these skills.

Moreover, they arguably appear to be more central to the requirements of VRI than HJE,

insofar as they seem to represent the skills typically associated with supervisory activities, specifically:

- Decision-Making
- Product Knowledge
- Delegating
- Supervisory Skills
- Presenting, Briefing
- Financial Awareness
- Report Writing

Clearly, rank order differences do exist between the two groups (eg., Managers rank 'financial awareness' and 'report writing' comparatively higher than the Secretaries above), but it is nevertheless manifest that both groups prioritise the relative importance of the highest sixteen competencies within two rank order positions (the only exceptions being 'assertiveness' and 'financial awareness' which differ by three positions).

Inspecting the remaining nine competencies, it is again evident that the rank order of importance between the two populations differs by no more than two positions - the exceptions being 'quality control', 'statistical analysis' and 'negotiating'. Here, Managers give greater prominence to quality control and statistical analysis, whereas Secretaries favour negotiating in terms of perceived importance. Nevertheless, from a survey of twenty five competencies, all but five of the skills differ by no more than two rank order positions in the perceptions of both populations.

Hence, the following portrays the nine remaining competencies that are perceivably HJE orientated and completes the rank order of importance from the Secretaries' perspective:

- Personnel Systems
- Negotiating
- Project Control
- Counselling
- Quality Control
- Language Skills
- Statistical Analysis
- Purchasing Skills
- Selling Techniques

A possible explanation for HJE orientated skills ranking lower in importance than VRI orientated skills might relate to the observation that HJE is perhaps a more reactive practice than VRI (see CHAPTER EIGHT). Thus, whilst it has been previously noted that most participating organisations seem to introduce both practices in an almost complementary manner, the competencies typically associated with VRI are perhaps

widely applicable, whereas those concerned with HJE are possibly quite specific. The needs of the former may therefore commonly figure in progressive developmental programmes, whilst the needs of the latter might be determined and implemented on an 'as required' basis. This reasonably suggests that marked differences will probably exist in the determination and take-up of training topics, relative to which of the VRI, HJE or traditional group the competence is typically associated.

The extent of training experience in traditional, VRI or HJE related topics:

The probability that this is indeed the case is illustrated in the following table. The Secretaries' survey asks respondents to indicate in which of the twenty five competencies they have undergone some training since joining their present company, and TABLE 10.20 reports their experience within the previously identified VRI, HJE and traditional categories:

TABLE 10.20: Secretaries' Training Experience by Category			N = 332		
%	CONVENTIONAL	%	VRI RELATED	%	HJE RELATED
31.6	Organising Abilities	16.9	Decision-Making	7.5	Personnel Systems
27.1	Interpersonal Skills	23.2	Product Knowledge	7.5	Negotiating
41.0	Time Management	20.2	Delegating	3.9	Project Control
65.7	Computer Literacy	13.0	Supervisory Skills	5.4	Counselling
72.3	Word Processing	18.7	Presenting, Briefing	7.2	Quality Control
47.6	Assertiveness	13.9	Financial Awareness	13.0	Language Skills
27.1	Team-Working	16.0	Report Writing	3.3	Statistical Analysis
18.7	Business Awareness			2.7	Purchasing Skills
54.5	Inform. Technology			0.9	Selling Techniques

Clearly, there is a significant difference between the training experience gained within each category, whilst the comparatively low level of training in the HJE related grouping seems to again support the somewhat reactive nature of horizontal job enlargement. Paradoxically, perhaps, 13% of respondent Secretaries admitted to a measure of language skills training within their present companies, yet Secretaries and Managers alike rate this competence amongst the lowest in terms of its perceived importance (see TABLE 9.7 and TABLE 10.18).

Nevertheless, the divisions between the three categories appear logical and well defined and therefore these categorisations and their associated competencies will be retained in

the construction of the prototype diagnostic instrument. However, in proposing a diagnostic approach based on behavioural expectation scales, it is clearly of interest to establish how Secretaries' training and developmental needs are currently determined.

Perceived importance of needs analysis methods:

Within the survey, Secretaries are asked to rate the importance to their organisations of various methods typically employed in the determination of training and developmental needs. This compilation of methods results from a wide sweep of related academic literature (particularly Povall, 1991) and reasonably represents the plausible extent of contemporary needs analysis practices.

Thus, it is evident that Secretaries perceive performance appraisal to be significantly more important to their organisations than management assessment or observed work performance in the determination of training and developmental needs (see TABLE 10.21).

TABLE 10.21: Methods Used in Determining Secretaries' Training & Developmental Needs									
----- Friedman Two-Way Anova									
Method	1	2	3	4	5	N	SD	Mean	Rank
Performance Appraisal	183	93	40	8	8	332	.944	1.69	2.66
Management Assess.	130	121	58	13	10	332	.997	1.95	3.26
Observed Work Perform.	90	126	85	22	9	332	1.000	2.20	3.87
Internal Job Applications	72	150	77	19	14	332	.997	2.26	3.89
Skills Inventory	46	116	124	24	22	332	1.030	2.58	4.74
Career Counselling	25	84	127	49	47	332	1.127	3.03	5.69
Trial & Error	15	70	162	43	42	332	1.012	3.08	5.82
Assessment Centres	22	61	143	51	55	332	1.114	3.17	6.07
<i>1 = very important; 2 = quite important; 3 = neither imp nor unimp; 4 = quite unimportant; 5 = very unimportant</i>									
Cases	Chi-Square		D.F.		Significance				
332	627.7764		7		.0000				
Reliability Coefficients 8 items									
Alpha = .8405		Standardized item alpha = .8386							

However, whilst Secretaries believe performance appraisal to be the most important methodology, Managers, on the other hand, report that management assessment is more important albeit by a small margin (see TABLE 9.9). Moreover, it is shown in the previous chapter that Managers rate the determination of training needs to be one of the

least important purposes of the performance appraisal mechanism (see TABLE 9.10), yet both populations perceive the appraisal as a key determinant of training needs.

Nonetheless, it is quite clear from the Managers' survey that the instrument is widely used for a number of purposes, yet CHAPTER SEVEN discusses the flaws inherent in using it for anything other than needs analysis. Here it is posited that unless its purpose is confined to needs analysis, then a conventional performance appraisal procedure will be subjected to well documented concerns and distortions, arguably affecting its integrity as an effective mechanism (see especially Hyde and Smith, 1982 and Longenecker and Ludwig, 1995). Thus, the discussion returns to a central theme of this dissertation, notably that an appropriate diagnostic instrument might negate rating inaccuracies and integrate the three levels of analysis advocated by McGehee and Thayer (1961).

VALIDATION OF RESEARCH HYPOTHESES

From the previous analyses and reviews of questionnaire responses, it is evident that similarities exist, both in the general perceptions of the two survey populations and also in the training and developmental needs of secretarial staff from differing industrial sectors. Thus, the earlier notion of a generic needs analysis methodology might appear sustainable, especially in light of the somewhat homogenous nature of many administrative support activities. Additionally, it is perhaps feasible that the more specific training and developmental demands of HJE and VRI may be fairly evaluated at the three levels of analysis (McGehee and Thayer, 1961) if an appropriate needs analysis instrument can be devised.

Therefore the following chapter reviews the various key points that preceded and shaped the research hypotheses (see CHAPTER FIVE) and is arguably germane to a greater understanding of the components that might influence needs analysis within contemporary organisations. Hence, within this chapter the key issues and research hypotheses proper are evaluated in the light of the Managers' and Secretaries' surveys as an aid to appropriately focusing the proposed diagnostic process:

Thus, in CHAPTER FIVE it was suggested that *it is perhaps beneficial to survey and identify contemporary cultural values to determine whether sufficient commonality exists across all major industrial segments to justify their inclusion within a needs analysis instrument.*

From the survey responses it is evident that certain cultural orientations are not specifically favoured or influenced by particular industrial sectors, but might nonetheless be widely valued by many enterprises. It is thus posited that the degree of importance (or indeed unimportance) that contemporary organisations attach to most of the cultural orientations appears to have little to do with industrial sector. However, there are exceptions and the Managers' survey does indicate a measure of association between a technological orientation and sector ($\chi^2(44) = 64.80, p = .02; \phi = .77$) and an employee centred orientation and sector ($\chi^2(33) = 44.47, p = .088; \phi = .64$) - see TABLE 7.5.

Moreover, the Secretaries' survey does not reveal such associations but this may be, as previously suggested, a function of those industries operating at the forefront of technology and employing a large proportion of highly skilled and well qualified

personnel. Hence, those staff employed in an administrative support role might not necessarily be in a position to reasonably discern varying shades of employee centredness, yet organisations might nevertheless nurture such an orientation, especially where the workforce is considered to be a scarce resource.

Alternatively, although the Managers' survey does not reveal a statistically significant association between consumer focused cultural orientations and industrial sector (ie., their importance is perceivably pandemic and therefore unrelated to business activity), the Secretaries' survey nevertheless points to an association between a market responsive orientation and sector ($\chi^2(48) = 85.44, p = <.001; \phi = .51$) and a customer focused orientation and sector ($\chi^2(48) = 70.19, p = .02; \phi = .46$) - see TABLE 10.4.

Again, the reasons are a matter for conjecture, but perhaps the Secretaries are reporting the difference between theory and actuality. Thus, whilst most organisations may be actively engendering consumer orientated cultures as best commercial practices, their administrative support staff may perceive the reality as being very much driven by customer expectations and not by generic notions of customer care. Whatever, both populations report these and other orientations that are reflective of corporate service and quality to be, in the main, very important, thereby validating their commonality across all industrial sectors.

In consequence, the derived rank order of importance (TABLE 7.17) is held to be valid for most commercial and/or service-related organisations and therefore such issues as customer focus, market responsiveness and quality centredness, etc., might be beneficially included within a needs analysis procedure.

Whilst the desirability of certain cultural values might be common to all industrial segments, some characteristics may be shown to have a distinct regional dimension, thereby suggesting the need for a geographic spread of survey respondents.

With specific regard to the two surveys, the notion that cultural values might have a regional dimension is not, in these instances, substantiated, despite the inference by Howells and Green (1988 pp.47-49). Thus, organisations from a cross section of industrial sectors and geographic locations appear to identify with the same cultural orientations and to a similar extent, yet this is most likely related to the prevailing commercial environment and the type of organisational change that is being induced (see CHAPTER SEVEN).

Nevertheless, in terms of their inherent cultures, similarities are widely perceived to exist between parent and sibling organisations (see TABLE 7.7). Thus, 67.6% of respondent

Managers who own to having a parent organisation report both cultures to be either very similar or quite similar, whilst the fact that 63.8% of these exhibit the same business classification as their parent seems to add weight to the premise that such similarities might result from shared goals, experiences and the constant interaction that occurs between them.

The survey might identify pertinent cultural, structural and technological elements whose perceptual importance may reflect the comparative ease with which they can be addressed as strategic training issues.

Indeed, the relationship between strategies, structures, technologies, and cultures is clearly evident. Therefore, just as the business, economic and political environment is inducing organisational change, so is such change modifying strategies, influencing cultures and re-shaping organisational structures. Thus, it is from an appreciation of the origins of change that clues emerge regarding the manner that secretarial task roles are being strategically or reactively adapted. For example, the survey shows that their paraprofessional entre into particular activity functions might reasonably be linked to resource cost or availability, decentralisation, changing markets, legal or political pressure, foreign competition, or the need for efficiency improvements (see CHAPTER EIGHT). Equally, the fact that organisations tend to adopt a somewhat reactive and/or peripatetic approach to such paraprofessional involvement is arguably witness to the comparative ease with which HJE can be implemented and supported.

The survey might support the proposition that the task roles of administrative support staff are converging to some degree into paraprofessional or managerial related job functions, inferring the need for progressive emphasis on individual training and development.

Whilst there is clear evidence of such convergence, it is also evident that the degree to which HJE and VRI are being implemented is likely to depend on the intended activity function. Thus, those functional areas with a high administrative content, or perceivably requiring aptitudes related to established secretarial competencies, are more likely to adopt HJE and VRI than those demanding unrelated skills. This perhaps suggests that by progressively reviewing training and development to encompass new skill areas, greater opportunities may emerge that might reasonably produce benefits at all three levels of analysis.

However, it should be noted that more than half of the respondent Secretaries expressed a wish to either continue in their present task roles, or else develop their careers within

traditional secretarial frameworks (see CHAPTER TEN). Consequently, less than one-fifth of the survey population expressed a wish to enlarge their roles horizontally and little more than one-quarter indicated a desire to extend their roles vertically. This is perhaps surprising, bearing in mind the populist view that women, and indeed secretaries, are actively striving for career progression in all manner of activities, including those areas that might previously have been considered the domain of male managers and functional specialists (Hennebach, 1989).

Perhaps, though, the responses to questions relating to long-term career aspirations may also reflect each individual's attitude to change. Thus, those Secretaries who are apprehensive about change might well believe that any enlargement of their current task role exposes a potential threat to personal job security. Clearly, this is a difficult notion to substantiate, yet industrial psychologists have been aware of its implications for more than fifty years (eg., Lewin, 1947). Indeed, the notion that an individual's physiological needs may be regressive (Alderfer, 1972), suggests that ideals of peer recognition, ambition and self-actualization, tend to be supplanted by hygiene considerations once job security appears threatened.

Thus, Secretaries who indicate a preference for the status quo may not necessarily be displaying a lack of interest in aspects of HJE or VRI. Rather, they might be articulating their anxiety in moving, or being required to move, from their present comfort zone. Unfortunately, this hypothesis cannot be satisfactorily explored from existing data sets, but it nevertheless illustrates the importance of considering the needs of the individual when determining the present and future needs of task and organisation.

The survey might establish that a significant number of organisations recognise the strategic importance of administrative support staff development and are accordingly committed to providing appropriate training programmes.

It is apparent from the Managers' survey that the majority of organisations do intend their secretarial training programmes to support HJE and VRI to a minor or moderate extent (see TABLE 8.8 and TABLE 8.13). However, the degree to which these initiatives form part of a planned human resource strategy is likely to be difficult to evaluate, particularly as the introduction of HJE might very well be a reactive process. Thus, if the adoption of horizontal job enlargement is reactive, so equally might be the corresponding implementation of related training and developmental programmes.

Therefore, in gauging strategic commitment to HJE and VRI it is perhaps valid to limit consideration to those companies who claim to support training and development in these

areas to a marked or considerable extent. It may then be concluded that nearly 11% of high turnover organisations are strongly committed to HJE and approximately 13% have an equally demonstrable interest in VRI. As to the rest (but excluding the 19% whose programmes are in no way intended to support HJE and VRI) the author suggests that it is these companies who might, over time, progressively utilise Secretaries in solutioning issues of efficiency, resource cost, etc.

Thus, an effective needs analysis instrument may be of benefit, not only in supporting contemporary human resource programmes, but also in facilitating the determination of skills and aptitudes essential to the effective implementation of future HJE and VRI projects.

The survey might reveal the need or desire for a range of competencies that are generally important to all industrial sectors in facilitating horizontal job enlargement.

Indeed, a review of TABLE 9.07 and TABLE 10.18 shows that all competencies identified in the HJE RELATED column of TABLE 10.19 are rated very important by some Managers and Secretaries, whilst there is no subsequent evidence to suggest that such ratings might be influenced by the respondent's industrial sector. Moreover, if the average rating for each surveyed competence is considered to indicate its global importance, then every topic is rated about, or higher than, an ambivalent 'neither important nor unimportant'.

The survey might reveal various managerial and paraprofessional competencies that are generally important to all industrial sectors in facilitating vertical role integration.

Once again, a review of TABLE 9.07 and TABLE 10.18 shows that all competencies identified in the VRI RELATED column of TABLE 10.20 are rated very important by some Managers and Secretaries and there is similarly no other evidence to suggest that ratings might be linked to the industrial sector of the respondent. Furthermore, taking the average rating for each surveyed competence to be indicative of its global importance, then every topic is rated higher than an ambivalent 'neither important nor unimportant'.

The survey might reveal various competencies that are generally important in underpinning secretarial and administrative support roles.

As before, a review of TABLE 9.07 and TABLE 10.18 shows that all competencies identified in the CONVENTIONAL column of TABLE 10.20 are rated very important by some Managers and Secretaries, with no other evidence linking these ratings to the industrial sector of the respondent. Additionally, taking the average rating for each surveyed competence to be reflective of its global importance, then all topics are rated about, or higher than, 'quite important'.

The survey might reveal a range of skills that Secretaries consider important in furthering their personal career objectives.

Essentially, TABLE 10.18 illustrates the relative importance of various topics perceived by Secretaries to be fundamental to them realising their personal career objectives. This compilation does not distinguish between horizontal or vertical ambition, but considers all competencies in terms of current and future task roles - however envisaged. Thus, it can be seen that all competencies identified in the table are rated very important by some Secretaries, whilst there is no other evidence to link these ratings to the industrial sector of the respondent. Moreover, if the average rating for each surveyed competence is considered to be reflective of its global importance, then every topic is rated about, or higher than, an ambivalent 'neither important nor unimportant'.

The survey might reveal sufficient interest in the study to substantiate the development of a diagnostic instrument that addresses the training and developmental needs of secretarial and administrative support staff.

At the cost of anonymity, Managers are asked at the end of their questionnaire if they would like to be informed of the results of the survey and/or be kept updated regarding progress in this specific area of research. The necessary abandonment of anonymity is perhaps indicative of a genuine desire to receive related information, especially as some of the survey issues might be considered commercially sensitive and open to possible misinterpretation. Nevertheless, of the total respondents, 63.4% express the wish to be notified of the results of the survey and 57.1% request to be updated on the progress of the project. Thus, the fact that more than half of the respondents register an interest in the study reasonably validates the construction of an appropriate diagnostic instrument.

Finally, it seems apparent from the present discussion that the various corollaries arising from the literature review and subsequently shaping the research hypotheses are receptive to a reasonable degree of empirical support or plausible explanation. Therefore the research hypotheses proper are likewise discussed in the light of the literature review and with particular regard to the Managers' and Secretaries' survey.

Validating the principal research hypotheses - commonality in cultural preferences:

In CHAPTER ONE, Kotter and Heskett (1992) expound the propriety of an adaptive culture that is in harmony with the business environment. They go on to suggest that there is no such thing as a generically good culture - insofar as it is good only if it fits the objective conditions of the industry, the segment of industry specified by an organisation's strategy,

or the business strategy itself. This is fairly self evident inasmuch as a generically appropriate organisational culture would logically result in a clone effect across all sectors which would be clearly nonsensical. Nevertheless, with the advent of such notions as just-in-time, quality circles and customer care, etc., it is perhaps apparent that organisations of all types do, to a great extent, subscribe to similar cultural orientations in their quest for competitive advantage. If indeed the case, the idea that certain cultural components can be widely adopted as training issues is reasonably sound and might therefore constitute one of the central aspects of a contemporary needs analysis methodology. Hence, the first hypothesis:

- ◆ that areas and degrees of commonality may exist in the cultural preferences of organisations

From the Managers' survey, TABLE 7.17 shows the rankings for the various cultural orientations, where it is evident that customer focus, market responsiveness and quality centredness are considered very important or important by almost every respondent organisation. Moreover, the subsequent factor analysis (see TABLE 7.19) appears to point to two latent variables, the first with its roots in those dimensions that reflect corporate image and the second in those that express standards of service. Thus, the way that a company is perceived by both internal and external agencies is maybe as important as actuality in establishing market and community positioning and engendering consumer and employee confidence. Therefore, perhaps not surprisingly, the Secretaries' rankings of the importance of the various cultural orientations are quite similar to those of the Managers (see TABLE 10.3 and TABLE 10.5) thereby demonstrating a mutual appreciation of their significance. On the other hand this similarity of perception might possibly reflect prevailing management platitudes, where service, customer care and quality are clichéd figments of the corporate public relations machine.

Whatever, the final mix of an organisation's cultural orientation shapes its image, and consequently expresses its ethical and cultural exclusivity or differentiation, its criteria for success, and its empathy with identity audiences (see especially Ind, 1990). Thus, the reinforcement of desired cultural features is seemingly important to both organisation and individual alike and DIAGRAM 5.2 illustrates how this might be achieved through effective needs analysis and appropriate training and development initiatives.

Cultural orientation and organisational change:

Whilst a geographic dimension to cultural preference may not, in the case of this survey, be substantiated, the hypothesis that a commonality might exist across all industrial sectors is not rejected and it is consequently posited that certain cultural orientations are widely valued by most enterprises - irrespective of their core business activity.

Nonetheless, it was also surmised that a relationship might exist between cultural orientation and organisational change, where the cultural orientation of an organisation might perhaps influence the manner in which it manages change issues or contains its effects. For example, those organisations who consider their technological orientation to be very or quite important might perhaps experience less organisational change as the result of technological transition. Hence the second hypothesis:

- ◆ that there may be a relationship between an organisation's cultural orientation and the type and extent of change that it may be experiencing

Firstly, there is indeed evidence of a low but statistically significant negative correlation between the degree of organisational change resulting from technological transition and the extent of an organisation's technological orientation, where $r = -.50, p = <.001$ (see TABLE 7.24). As discussed in CHAPTER 7, this perhaps suggests that organisations who declare themselves to have a technologically orientated culture may tend to embrace a more proactive approach to technological issues and in consequence experience a lesser degree of organisational change as a direct result of technological influences.

It is also apparent that the more innovative an organisation's cultural orientation, the less influence changing markets will have on organisational change, where $r = -.26, p = .007$ (see TABLE 7.22). Thus, those companies who consider themselves to have a highly innovative orientation, might respond to market forces in a singular manner that minimises organisational change and/or by their very nature be proactive agents rather than reactive followers of changing market conditions. Moreover, it can be seen from TABLE 7.32 that the influence of changing markets is one of several forces exhibiting a measure of association with industrial sector ($\chi^2(44) = 57.84, p = .079; \phi = .73$) - the others being the national economy ($\chi^2(44) = 63.84, p = .027; \phi = .77$) and foreign competition ($\chi^2(44) = 61.16, p = .044; \phi = .75$). It is therefore perhaps feasible that the ability to better manage changing markets may, in certain circumstances, be sector related and might particularly be in evidence where associated organisations can genuinely demonstrate an innovative outlook.

However, with regard to the other cultural orientations, there is insufficient statistical

significance to reject the null hypothesis that there is no difference between the type and extent of change experienced by organisations with differing cultural orientations. Thus, it is posited that, in general, organisations from all industrial sectors may experience varying degrees of organisational change as a result of outer contextual factors. Such change is unlikely, with few exceptions, to be related to industrial sector or to the cultural orientation of the company and it therefore seems reasonable to address change issues in generic rather than sector specific terms.

The influence of organisational change on secretarial task roles:

During the late 70's and early 80's many commentators assumed a correlative association between the adoption of new office technology and the displacement of administrative support staff and consequently predicted substantial reductions in future levels of clerical employment (see CHAPTER TWO). Moreover, these assumptions tended to be accompanied by notions of 'Taylorism' (see especially Collins, 1979) and it was therefore commonly held that the evolving technology would introduce dehumanising production-line practices into the office environment.

However, later authors point to the fictitious and rhetorical nature of such claims (see especially Webster, 1990), suggesting that, far from being a dehumanising influence, the technology is paving the way for refined communications systems that allow secretaries even greater control over their careers and working environment. Equally, the earlier presentiments of mass clerical displacement have been shown, in the light of subsequent employment statistics, to be erroneous (see TABLE 2.1), particularly as the adoption of new technology is perceivably increasing at a compound rate of 49.5% per annum (see TABLE 2.3).

Thus, it might seem reasonable to suppose that technological change is a primary catalyst for organisational change which is perhaps having a corresponding effect on the task roles of secretarial and administrative support staff. Hence the third hypothesis:

- ◆ that the type and extent of organisational change may have a discernible influence on the task roles of secretarial and administrative support staff

With regard to the specific influence of technology on organisational change, it is clearly a primary contributor and this is seemingly validated by the survey where respondent Managers rank it as the fourth highest influence (see TABLE 7.32). Furthermore, when specifically asked for their perceptions regarding the effect of new office technology on

secretarial job roles, 56.3% of Managers report the effect to be either marked or considerable (see TABLE 8.3). Also, there is clear evidence of a statistically significant correlation between the influence of technological change on secretarial task roles and the influence of wider organisational change on their jobs, where $r=.31, p=.001$ - Spearman (see TABLE 8.4).

However, there are higher ranked forces for organisational change, the principal influence being efficiency improvements which also correlates with secretarial involvement in the personnel function ($r=.27, p=.004$). Thus, it is posited in CHAPTER EIGHT that Secretaries may be increasingly utilised within the personnel function to promote internal efficiencies as well as, perceivably, to counter issues of resource cost/availability ($r=.41, p<.001$) and/or support decentralisation ($r=.26, p=.007$ - see TABLE 8.7 and TABLE 8.12).

Moreover, other functional areas that are involving or redeploying Secretaries such as production, sales and marketing, etc., also exhibit statistically significant relationships with various forces for change. This might again infer that administrative support personnel may be similarly utilised in other activities to precipitate greater efficiencies and address, for example, issues associated with foreign competition, changing markets, resource cost/availability, etc., (refer to discussion in CHAPTER EIGHT).

It is therefore evident that organisational change *is* having a discernible influence on the task roles of secretarial and administrative support staff, apparently promoting both horizontal job enlargement and vertical role integration within a number of functional areas (see TABLE 8.6 and TABLE 8.11).

Identification of skills and competencies at three levels of analysis:

One of the central themes of this investigation orientates around McGehee and Thayer's (1961) proposition that the training and developmental needs of the individual should be established from three perspectives; essentially from that of the organisation, the task and the individual. Thus, the needs of each might be similar or different, but most certainly will be formed through interplay with contemporary inner and outer contextual issues (see CHAPTER ONE) and factors concerned with work organisation, conditional motivation and concepts of individual differences (see CHAPTER THREE).

Therefore, one of the primary objectives of the two surveys is to examine the training and developmental requirements of secretarial and administrative support staff from each perspective and ascertain whether sufficient commonality exists to validate a general

methodology. Hence the fourth hypothesis:

- ◆ that the skills and competencies required by organisations, administrative task roles and the individuals working within them can be identified

In constructing the surveys, the author endeavoured to present a clear distinction between horizontal job enlargement and vertical role integration and subsequent analysis revealed no obvious misinterpretations by either respondent population. It is therefore apparent that many organisations *are* extending the task roles of Secretaries both horizontally and vertically, but the extent of this is very much related to functional activity (see TABLE 8.6 and TABLE 8.11). Thus, organisations are far more likely to be involving their administrative support staff in personnel than they are the design function, yet there is clear evidence that Secretaries are being exposed to all major functional activities by one organisation or another and to a greater or lesser degree.

However, it is not enough to merely rank these activities and draw up an inventory of the knowledge skills and abilities (ksa's) required for each. Clearly, certain ksa's are common to most functions and Secretaries arguably have these in some measure thus making them ideal candidates for HJE and VRI. However, 56.1% of respondent Secretaries have no wish to extend their task roles outside of conventional lines (see CHAPTER TEN), thus necessitating a CONVENTIONAL category for ksa's. Similarly, whilst it might appear that HJE and VRI are often adopted as parallel practices (see TABLE 8.16), the competencies required for each may differ. Moreover, by simply grouping those competencies identified by the Managers under HJE and VRI, no account is taken of the perceived needs of the individual.

Therefore, in additionally requesting each Secretary to identify the competencies required for HJE, VRI or CONVENTIONAL ambitions, and couching the questions in terms of present and future aspirations, an important individual dimension is added. TABLE 9.7 and TABLE 10.17 rank the various competencies from both Managers' and Secretaries' perspectives and, interestingly perhaps, both tables exhibit quite small differences in rank order positions.

It is thus apparent that training and developmental needs from both organisational and individual perspectives are markedly similar and might therefore be identified within a generic framework that is applicable for most organisations. TABLE 10.20 groups the established competencies in rank order according to their CONVENTIONAL, VRI or HJE categorisation, along with an indication of the training support that respondent Secretaries are receiving in each topic.

Contemporary needs analysis methodologies:

The literature describes a number of ways in which training and developmental needs may be assessed and TABLE 9.9 and TABLE 10.21 lists the more prevalent techniques in the mean rank order in which their importance is perceived by Managers and Secretaries. Thus it can be seen that the performance appraisal is seen to be one of the most important mechanisms, yet the literature is full of cautions regarding the inadvisability of using it for any purpose other than the determination of training and developmental needs (see CHAPTER FOUR). Nevertheless, in discussing his two earlier studies, Long (1986) reports that organisations continue to use the process for a number of administrative purposes that detracts from its veracity as a needs analysis methodology. Moreover, he is one amongst many in criticising the practice of linking, for example, performance criteria, disciplinary procedures, remuneration, etc., and authors such as Cascio (1982) and Hyde and Smith (1982) also describe the conflict that occurs when a supervisor is required to simultaneously act as 'judge' and 'helper'. Hence the fifth hypothesis:

- ◆ that the methodologies presently employed in determining the training and developmental needs of administrative support staff may be established

Indeed, performance appraisal, management assessment and observed work performance are perceived to be the most important techniques, yet there is clear evidence that performance appraisal mechanisms continue to be used for all of the debatable purposes identified by Long. Furthermore, it appears from the Managers' responses that judgemental aspects of the process are assuming even greater prominence over time, and TABLE 9.12 illustrates the changes in emphasis that have occurred over the twenty year period since Long's initial study.

It is therefore probable that contemporary needs analysis procedures continue to be riddled with various biases and concerns discussed in CHAPTER FOUR and are thus subject to varying degrees of creative discretion that might arguably negate their integrity (see especially Longenecker and Ludwig, 1995). Moreover, in lacking veracity as a needs analysis methodology, the performance appraisal process is perceivably relegated to nothing more than a dubious validation process to support management decisions concerned with workplace control, staff grading and employee remuneration, etc.

However, the central features of a behavioural expectation methodology appear to be fundamentally established within extant management practices (ie., performance appraisal, management assessment and observed work performance), perhaps facilitating the introduction and wider acceptance of a behaviourally orientated process (eg., BES).

Identification of components for a needs analysis methodology:

It is evident from the surveys and earlier discussion that organisations tend to attribute considerable importance to certain cultural features, especially those that are commercially focused and express standards of market responsiveness, customer care and quality. Whilst it has already been suggested that such orientations might sometimes be reflective of management platitudes rather than rigorously nurtured characteristics, they are nonetheless perceived to be essential components in the quest for competitive advantage and are therefore almost universally desired by respondent organisations.

However, whilst it could be argued that such features might be inherent within certain personality profiles and thus discerned through psychometric evaluation, it is nonetheless apparent that many companies such as McDonalds and Sainsburys engender such orientations through staff training and positive reinforcement programmes. Therefore a cultural dimension is obviously important within a needs analysis process, as indeed are the various competencies that support CONVENTIONAL, HJE and VRI initiatives (see TABLE 10.20). Equally, there is some evidence to suggest that the type of change that an organisation is undergoing might partially prescribe the functional activities in which administrative support staff may be beneficially deployed (refer to the discussion pertaining to TABLE 8.7 and TABLE 8.12). Thus, the consideration of inner and outer contextual issues may suggest deployment opportunities for secretarial and administrative support staff that might optimise internal efficiencies and in various other ways improve an organisation's competitive edge.

From such discussion it is perhaps clear that an effective needs analysis process should extend beyond the more common task analysis approach to embrace a range of factors that might seek to embody the needs of the organisation, the task and the individual.

Hence the sixth hypothesis:

- ◆ that the components for an appropriate TNA instrument based on behavioural expectation scales may be discerned and developed

From a review of the literature, a number of instrument design features are formulated and expressed as seven corollaries that stipulate (1) limitations; (2) purpose; (3) benefits; (4) content; (5) scope; (6) construction; and (7) responsiveness (see CHAPTER FIVE).

Thus, a specification for the diagnostic instrument is essentially established, following which the discussion again draws upon the literature review to shape the survey questions relating to sectoral and regional emphasis, cultural orientation, task convergence, competencies, and the various other issues that might present a greater insight into

appropriate instrument design.

In the subsequent surveys, both Managers' and Secretaries' questionnaires are satisfactorily completed, thereby providing the necessary components for the proposed instrument. Thus, the hypothesis that such components might be discerned is substantiated, and the final chapter describes the development of a prototype procedure based on such components and incorporating the discussed concept of behavioural expectation scales. Furthermore, all of the key issues emanating from the investigation are either validated or shown to be of little significance to this project (CHAPTER SEVEN to CHAPTER TEN refers) and therefore the central objectives of this enquiry are considered to be met.

The potential for a diagnostic needs analysis instrument:

It has long been held by many authors that bias and concern are inherent elements of those appraisal procedures that extend beyond the determination of training and developmental needs. The resultant distortions are well documented (see CHAPTER FOUR) and commentators such as Longenecker and Ludwig (1995) have even exposed a common tendency for managers to circumvent the appraisal process in order to facilitate their own outcomes. Nonetheless, it is clear from the surveys that the performance appraisal remains one of the principal methodologies for determining training needs (see TABLE 9.9 and TABLE 10.21) yet despite the cautions of contemporary authors, organisations persist in using the process for other administrative purposes that arguably perpetuate rating inaccuracies.

It is therefore a contention that, in its present form and conditions of use, the traditional performance appraisal procedure is generally less thorough than it needs to be in establishing need at the three levels of analysis. Hence the seventh hypothesis:

- ◆ that a potential requirement exists for such an instrument

From the extensive literature on the subject, it perhaps seems unquestionable that needs analysis can be substantially improved by dispelling rater concerns, focusing on the diagnostic person and enhancing the Manager's role as 'helper' by excising all judgemental aspects from the process.

However, it is probably unreasonable to suppose that Managers do not perceive some advantages from adopting a multi-administrative approach to performance appraisals. Clearly, if such benefits were not apparent, organisations would desist from their use, yet almost every respondent Manager attributes the technique with some degree of

importance (see TABLE 9.10).

It thus seems questionable whether organisations will readily move from long established procedures that perhaps give empirical support to some of the more emotive management decisions. On the other hand, the introduction of a new procedure that is simple to apply, avoids stressful confrontations and provides veridical needs analysis, might very well be an acceptable ancillary to existing techniques.

Therefore, within the letter accompanying the survey, Managers are informed of the purpose of the questionnaire and of the author's intention to develop a diagnostic needs analysis instrument directed at secretarial and administrative support staff. Moreover, they are asked in the final question if they wish to be kept informed of the author's progress in this area of research. At the cost of their anonymity, 57.1% expressed an interest and provided company details, perceivably validating the hypothesis that a potential requirement exists for such an instrument. With this in mind, APPENDIX 5 examines in some detail the construction and practical application of a prototype instrument.

The next and final chapter (CHAPTER TWELVE) presents the research conclusions and discusses those areas that might provide fertile ground for further investigation.

CONCLUSIONS AND AREAS FOR FURTHER INVESTIGATION

The organisational paradigm:

In adopting the outer and inner contextual structure suggested by Pettigrew et al (1992), this enquiry has been necessarily broad in reviewing the environmental issues that are perhaps germane to most commercial enterprises. Hence, there is little doubt that outer contextual factors hold great sway on the strategies, goals and objectives of the organisation (ie., its purposes), likewise exerting a cascading influence on its structure, processes, technology and culture. DIAGRAM 1.2 illustrates the various outer and inner relationships, drawing on the works of Steers (1977), Katz and Kahn (1978), Harrison (1987) and Pettigrew et al (1992) to derive a paradigm that might reasonably place the contemporary organisation in its contextual environment.

Thus, it is clear that the subsequent research model should pay due regard to such outer influences, and consequently the resultant 'conceptual model for needs analysis' (DIAGRAM 5.2) incorporates these external factors to illustrate their effect on individual, task and organisational needs. Similarly, internal factors are related to each of the three levels of analysis, thereby elucidating their particular relevance to training and developmental need at the individual, task and organisational level and their pertinence to various developmental outcomes.

The following conclusions and associated discussion therefore orientate towards the various issues arising from the interplay between outer and inner contextual factors and, in particular, towards those factors identified within the 'organisational paradigm' and subsequently reflected in the 'conceptual model for needs analysis'. Thus, this chapter encapsulates the more relevant findings from the enquiry, considering the extent to which outer contextual factors are inducing organisational change within respondent organisations and gauging their subsequent effect on the training, development and task role transition of secretarial and administrative support staff.

Regional influences on needs analysis:

Initially focusing on need at the organisational level of analysis, the investigation reviews

the forces for change arising from economic, social, political and technological factors. Thus, consideration is first given to the changing structure of economic activity and its potential effect on the socio-spatial make-up of the United Kingdom. This explores the suggestion that geographical influences might surround the under or over representation of certain labour sectors, perhaps resulting in a white collar/blue collar dichotomy that may underpin regional divisions of labour (Howells and Green, 1988).

Its significance to this enquiry, however, is the notion that the comparatively low mobility of office staff (see Daniels, 1980 and Povall et al, 1991) allied to the regional intensification of certain industries, might introduce a geographical dimension into the training needs of administrative support personnel. Thus, where organisational cultures and individual attitudes are perhaps reinforced through localised commercial and community activity, so might this induce regional variances in perceptions of organisational, task and individual needs.

However, the subsequent survey of UK enterprises reveals that reported differences in cultural orientation or perceptions of need are not, in the case of this investigation, reasonably attributable to the geographical location of respondent organisations. Thus, there is insufficient evidence to reject the null hypothesis that no cultural differences exist that might be particular to one geographic region or another (see TABULATION 2). Nevertheless, this does not appear to be the case when examining the cultural influence of parent organisations and hence a statistical association is evident between a company's cultural orientation and, where applicable, the geographic origin of its parent (see TABULATION 3).

Consequently, in reviewing a company's *i)* market responsiveness, *ii)* goal orientation, *iii)* quality centredness, *iv)* employee centredness and *v)* quality focus, each of these features exhibit sufficiently high chi-square values to precipitate the rejection of the null hypothesis that there is no statistically significant association between parental origin and a sibling's cultural orientation (see TABLE 7.6).

Thus, the idea that sibling organisations might generally adopt the cultural values of their parents and engender, for example, customer care and goal driven attitudes reminiscent of the Americas, or quality and employee centred dispositions characteristic of the Pacific Rim, is perhaps reasonable and is discussed in CHAPTER SEVEN. However, it is also apparent that 63.8% of respondent organisations who own to having a parent, share the same industrial classification as that parent (see TABLE 7.8). Moreover, 67.6% of the Managers readily perceive their own organisations as exhibiting very similar, or quite

similar, cultural characteristics to their parents which may equally have developed from the mutual interaction that occurs between them. Thus the relationship between parental origin and cultural orientation might be somewhat more direct than at first imagined.

Nevertheless, the parent's geographic origin may contribute an important dimension to the training and developmental needs of collective group enterprises, particularly where the parent is attempting to emulate success in its home market by stamping its own cultural emphasis on sibling activities. Thus, the origin of the parent might prescribe cultural facets that have perceivably contributed to previous commercial successes within diverse environments and may subsequently be considered essential prerequisites for competitive advantage and market dominance. If indeed the case, parental origin might provide important clues to the determination of need at the organisational level and the literature might arguably benefit from a more extensive analysis of the cultural characteristics of international companies.

Sectoral influences on needs analysis:

There is little doubt that consumer focused cultures are almost universally valued by organisations and this is illustrated in the three highest rank order positions of TABLE 7.17 which are occupied by customer focused, market responsive, and quality centred orientations. Thus, for the greater part, the cultural emphasis of an organisation is seemingly independent of industrial sector, yet there is nonetheless some evidence of statistically significant associations pertaining to several cultural orientations.

Firstly, a measure of association is seen to exist between a technological orientation and sector ($\chi^2(44) = 64.80, p = .02; \phi = .77$) and an employee centred orientation and sector ($\chi^2(33) = 44.47, p = .088; \phi = .64$) - see TABLE 7.5.

From the survey responses it is evident that certain cultural orientations are not specifically favoured or influenced by particular industrial sectors, but might nonetheless be widely valued by many enterprises. It is thus posited that the degree of importance (or indeed unimportance) that contemporary organisations attach to most of the cultural orientations appears to have little to do with industrial sector. However, there are exceptions and the Managers' survey does indicate a measure of association between a technological orientation and sector ($\chi^2(44) = 64.80, p = .02; \phi = .77$) and an employee centred orientation and sector ($\chi^2(33) = 44.47, p = .088; \phi = .64$) - see TABLE 7.5.

As previously suggested, employee centredness might be a function of those organisa-

tions involved at the higher echelons of intellectual or technological activity, perhaps employing an atypical proportion of highly skilled and well qualified personnel. Thus, the workforce may be particularly valued in those circumstances where a scarcity issue is perhaps seen to pervade the recruitment/employment arena. For instance, such conditions might feasibly prevail within a technologically orientated environment and this is seemingly borne out in TABLE 7.18, where an inter-item correlation of $r=0.26, p<.01$ can be discerned between technological orientation (Q04) and employee centredness (Q06).

Conversely, the Secretaries' survey does not reveal a statistically significant association between employee centredness, technological orientation and sector, but this might reflect the possibility that administrative support staff may be functionally remote from the interplay between Manager and Professional and therefore somewhat distant from the subtler elements of employee centredness. However, the Secretaries' survey does infer two statistical relationships that are not evident from the Managers' survey.

Hence, whilst the Managers' survey does not reveal a statistically significant association between consumer focused cultural orientations and industrial sector (ie., their importance is perceivably pandemic and therefore generally uninfluenced by differences in business activity), the Secretaries' survey nevertheless points to an association between a market responsive orientation and sector ($\chi^2(48) = 85.44, p = <.001; phi = .51$) and a customer focused orientation and sector ($\chi^2(48) = 70.19, p = .02; phi = .46$) - see TABLE 10.4.

Again, the reasons are a matter for conjecture, but perhaps the Secretaries are reporting the difference between theory and actuality. Thus, whilst most organisations may be actively engendering consumer orientated cultures as best commercial practices, their administrative support staff may perceive the reality as being very much driven by customer expectations and not by generic notions of customer care. Whatever, both populations report these and other orientations that are reflective of corporate service and quality to be, in the main, very important, thereby validating their commonality across all industrial sectors and thus their inclusion within a contemporary needs analysis methodology.

Paradoxically, however, in exploring a latent association between the various cultural orientations, it is apparent from the resultant factor matrix (TABLE 7.19) that the underlying variable has its strongest roots in those features that have less to do with consumer satisfaction and more to do with the rendering of corporate image. Thus, the importance of the identity audience emerges (see Ind, 1991) along with the notion that

the employee is one of the key propagators of corporate image to a host of external receptors including communities, customers, suppliers, buyers, the media, etc. Hence, the cultural orientation of an organisation can overtly express its ethical exclusivity, its criteria of success and its wish to satisfy the needs of its identity audiences. Clearly, this fact should not be neglected in the determination of need at the organisational level of analysis.

Outer contextual influences on task role transition:

The enquiry next focuses on need at the task level of analysis, and is primarily concerned with the manner in which external forces for change might perhaps be influencing the task roles of secretarial and administrative support staff. Thus, several aspects of change are considered within this thesis, the first examining the extent that outer contextual factors might have a sectoral tendency and the second concerned with the possible relationship between differing types of change and the direction of support staff transition. It may therefore follow that a measure of predictability might be seen to accompany horizontal job enlargement (HJE) and vertical role integration (VRI) and, if indeed the case, developmental options could perhaps be proactively initiated in order to facilitate and manage potential change issues.

Moreover, in citing the observations of Hennebach (1989) and Webster (1990), it is apparent that organisational structures are generally tending to change from a pyramidal shape to a much flatter profile that conceivably stretches professional and managerial resources. The resultant extension of executive span of control has subsequently facilitated the deployment of secretarial staff into paraprofessional activities (HJE) that might once have been the domain of functional specialists, or into supervisory activities (VRI) that were previously accomplished by Managers (see CHAPTER THREE).

The fact that cost and efficiency rationalisation might generally underpin such change is reflected in the Managers' survey, where it is apparent that 'efficiency improvements' have induced the greatest degree of organisational change, closely followed by 'changing markets' and 'the national economy' (see TABLE 7.32). Interestingly, of the nine forces identified, three exhibit an association with industrial sector, these being 'the national economy' where $\chi^2(44) = 63.84, p = .03; \phi = .77$; 'changing markets' where $\chi^2(44) = 57.84, p = .08; \phi = .73$; and 'foreign competition' where $\chi^2(44) = 61.16, p = .04; \phi = .75$ (see TABLE 7.31). Thus, the degree of change attributable to these influences might well differ according to industrial sector, whereas other forces may induce varying

degrees of organisational change which are ostensibly independent of business activity.

However, several relationships do emerge that serve to link the effects of certain change influences to particular cultural orientations. Specifically, the extent of change attributable to changing markets correlates negatively with an innovative cultural orientation (see TABLE 7.22) whilst the extent of change attributable to technological change correlates negatively with a technologically orientated culture (see TABLE 7.24). Consequently, it may be reasonable to suppose that companies who declare themselves to have a highly innovative orientation are perhaps proactive agents rather than reactive followers of change and thus adapt to market shifts in a manner that minimises organisational change. In much the same way, organisations who consider themselves to have a strong technological orientation might perhaps experience less organisational change as a result of technological influences, again reflecting a receptive and proactive approach to associated issues.

Nevertheless, it is apparent from the attendant inter-item correlations that forces for organisational change might not necessarily occur independently but may be initiated or amplified by other change dimensions (see TABLE 7.33). Consequently, one influence may accompany or precede another and the Managers' survey reveals statistically significant relationships between:-

the national economy and changing markets $r=0.31, p<.001$

business diversification and changing markets $r=0.28, p=.002$

technological change and resource cost/availability $r=0.25, p=.004$

foreign competition and resource cost/availability $r=0.33, p<.001$

efficiency improvements and resource cost/availability $r=0.36, p<.001$

decentralisation and efficiency improvements $r=0.31, p<.001$

Thus, a resource cost/availability issue overtly enmeshes the forces for organisational change, reasonably reflecting the extent of corporate absorption in the control of fixed and variable costs. However, the prevalence of these inter-item correlates might also indicate an underlying variable, this notion being explored in CHAPTER SEVEN (see TABLE 7.35) where a latent variable conceivably loads into five principal dimensions, specifically *i*) cost/availability (25.2%), *ii*) efficiency (14%), *iii*) technology (12.7%), *iv*) the economy (11.7%), and *v*) strategy (10.1%). Due to the fact that the variable's largest proportions occur in those change factors that might have an imminent effect on the organisation and its smallest proportions in those that have less immediate implications, the variable is perhaps representative of the order in which management concerns itself with change

issues.

Thus, although a rank order emerges for the extent in which outer contextual issues are inducing organisational change (see TABLE 7.32), it is maybe arguable whether this is in fact the order in which such issues are subsequently addressed. Although of peripheral relevance to this study, it frames the proposition that the management of change might tend towards a somewhat reactive process and hence the training and deployment of administrative support staff may perhaps be driven by dynamic conditions rather than pre-emptive needs analysis. Likewise, development opportunities might well be unduly influenced by overhead cost considerations as organisations strive to control aspects of resource cost/availability.

Nevertheless, in reviewing the nature of change management and its effect on individual development, it is evident that organisational change is generally influencing secretarial task roles to marginally more than a moderate degree (see TABLE 8.1). Moreover, several statistically significant relationships emerge from the Managers' survey that give further clues to the impetus behind this transition. Thus, TABLE 8.2 displays correlates between the degree that secretarial job roles are being influenced by organisational change and

- i) the extent that technology is perceived to contribute to overall organisational change ($r=0.29, p=.002$), and
- ii) the extent that resource cost/availability is similarly seen to contribute to overall organisational change ($r=0.30, p=.001$).

Therefore, in conflating the correlation between technological change and resource cost/availability ($r=0.25, p=.004$) it is further apparent that resource cost/availability is likely to be a principal factor in the transition of secretarial and administrative support staff. Implicit in this observation is the premise that new office technology is seemingly facilitating resource/cost benefits, whilst the vertical and horizontal deployment of secretarial staff will primarily have their origins in the organisation's wish to optimise human resources and minimise overhead spend.

Issues influencing the adoption of HJE and VRI:

Throughout the early '80's, many commentators construed a causal association between the introduction of new office technology and the anticipated displacement of administrative support staff (see CHAPTER TWO). It was also prophesied by some authors that the new technology would provide management with the means of mechanising conventional clerical activities and would thus precipitate the introduction of assembly-line practices

into the office environment (see especially Collins, 1979).

Clearly, time has shown such predictions regarding clerical displacement to be substantially erroneous (see TABLE 2.1) and it is increasingly evident that new office technology is facilitating greater secretarial opportunities as opposed to suppressing them under a 'Taylorist' regime. However, it is irrefutable that the technology is having some influence on the task roles of administrative support staff and 57.8% of respondent Managers consider that it is affecting secretarial job roles to a marked or considerable degree (see TABLE 8.3). Nevertheless, the fact that new office technology is, in general, positively perceived and thereby devoid of dehumanising assembly-line connotations, is validated by the survey, where 47.0% of respondent Secretaries report that technological change is resulting in more, or considerably more, career opportunities (see TABLE 10.9).

Moreover, a statistically significant correlation is apparent between the extent that secretarial task roles are affected by other forces for organisational change and the extent that their job roles are influenced by new technology ($r=0.31, p<.001$ - see TABLE 8.4). Therefore, it is likely that new office technology is not specifically adopted as a means of enhancing the productivity of the individual, but has much to do with enabling, supporting and accelerating wider organisational change. That this may indeed be the case is perhaps imputed by both populations, inasmuch as secretarial career opportunities are not perceived to arise predominantly from technological change, but are also seen to be afforded by other kinds of organisational change (see TABLE 8.5 and TABLE 10.11).

Furthermore, in investigating the areas in which Secretaries are being presented with horizontal and vertical opportunities, it is clear that such opportunities are not function specific but might occur across the spectrum of organisational activity (see TABLE 8.6 and TABLE 8.11). Nevertheless, it is also apparent that secretarial exposure to horizontal job enlargement and vertical role integration is greater in those activity functions that have a high administrative content and lesser in those that require skills outside of a Secretary's traditional role. This might suggest that ease of implementation is a further important aspect of HJE and VRI, along with considerations of each individual's knowledge, skills and abilities; cost of training; time-scale of integration; and the benefits that might reasonably accrue from the exercise.

However, it is probable that the thought processes underlying the adoption of HJE and VRI are somewhat different. Thus, in implementing HJE, consideration might firstly be given to the degree of difficulty and secondly to aspects of efficiency, whilst in introducing VRI the opposite is likely to be the case, with efficiency benefits taking

precedence over the difficulty of the undertaking (see TABLE 8.17 and associated factor analysis). Nonetheless, it is apparent that HJE and VRI tend to be introduced as parallel processes and thus a company who introduces one is likely to also implement the other ($r=0.67, p<.001$).

Moreover, it is evident that the actual implementation of HJE and VRI is reasonably commensurate with Secretaries' perceptions of their potential opportunity for horizontal and vertical development (see TABLE 10.15 and TABLE 10.17). Therefore, it might be envisaged that the pursuit of such opportunities by administrative support staff will be resolute, yet 56% of respondent Secretaries express a wish to remain within their established secretarial role rather than step outside of it. However, whilst this presents a credible affirmation of the findings of Silverstone and Towler (1982) and Hepburn (1991), it nonetheless begs the question why the larger proportion of Secretaries do not desire their job to be a stepping stone to higher occupational activities. Speculatively, perhaps they are not expressing a lack of ambition or a disinterest in HJE and VRI, but are maybe articulating their reluctance to change and their anxieties regarding moving from their existing comfort zones (see *personal and organisational sources of resistance to change* - CHAPTER THREE).

Nevertheless, 17.2% of respondent Secretaries *do* express the wish to enlarge their roles to encompass paraprofessional activities such as personnel, finance, marketing, etc., whilst a further 26.8% wish to extend their roles to encompass activities of a supervisory or monitorial nature. This may ostensibly be an expression of need at the individual level which, if determined in conjunction with need at the task and organisational level, might begin to satisfy the earlier precepts of McGehee and Thayer (1961). Hence, a number of questions are posed regarding the extent that HJE and VRI initiatives are presently supported by appropriate human resource strategies or instead left to the vagaries of chance (Fairbairns, 1991 pp.43-45).

Training for HJE and VRI initiatives:

The investigation next focuses on need at the individual level of analysis, and is essentially interested in identifying those skills and competencies that support Secretaries in their CONVENTIONAL task role and those that will equip them for the developmental opportunities that might arise from HJE and VRI initiatives. Thus, the enquiry is equally concerned with assessing organisational predisposition to horizontal and vertical strategies and gauging the extent of training support for related projects.

From the subsequent survey it is apparent that 43.7% of the catchment organisations do provide at least a moderate degree of training that is intended to facilitate HJE (see TABLE 8.8), whilst only 19.6% of respondent Managers' report that their training programmes are in no way intended to support such initiatives. Correspondingly, 44% claim that their companies' training programmes support VRI to at least a moderate extent, whilst just 19.3% report that their organisations do not intend this whatsoever (see TABLE 8.13).

Once again, conspicuous similarities are apparent between the two, arguably confirming the parallel nature of their implementation, yet there is evidence to suggest that the physical degree of training support does vary considerably between HJE and VRI related topics, whilst both receive significantly less support than CONVENTIONAL subjects. Thus, CHAPTER TEN describes the process of factor analysis and deliberation used for distinguishing the skills and competencies particular to each of the three disciplines, whilst TABLE 10.20 illustrates the recorded differences in actual training experience reported by respondent Secretaries. Here it can be seen that CONVENTIONAL secretarial topics are clearly the most frequently sponsored, VRI related subjects are supported to a lesser extent, whilst topics pertaining to HJE are perceivably the least supported by the respondent Secretaries' organisations.

Therefore, although HJE and VRI tend to be initiated to a similar extent within the various functional areas (compare TABLE 8.6 and TABLE 8.11), Secretaries report a significant difference in the degree of training that they have received relative to each. In CHAPTER EIGHT it is suggested that this might be reflective of a somewhat reactive and peripatetic approach to HJE, whereas the instigation of VRI may be a more considered process requiring focused training support in order to facilitate its success. Hence, ease of implementation versus the consequences of transgression is conceivably of less account for HJE projects than VRI, where poor supervisory judgement could have wide ranging implications for the individual and the organisation. Thus, individual exposure to HJE might perhaps be advocated on the basis of traditional secretarial skills and subsequently supported with vocational training, whilst VRI may feasibly demand special knowledge, skills and abilities that have been progressively acquired and actively demonstrated in a variety of critical incidents.

Whatever, it is perhaps reasonable to suppose that training for HJE and VRI is as much about addressing the needs of the individual as it is the needs of the task and organisation. This may be arguably sustained by the fact that those companies implementing

HJE and VRI tend to also have a predisposition to support personally orientated training that has no obvious connection with present or future job roles ($r=0.37, p<.001$ and $r=0.42, p<.001$ respectively). This is not to imply an element of organisational altruism as it remains unclear whether the provision of such training is *a)* inspired by established HR strategies embracing the three levels of need, or is *b)* intended to present a caring face to management/employee relations, or is *c)* in some way prompted by dynamic conditions arising from the management of change, etc.

What is clear, however, is that 32.9% of respondent Managers do support aspirational training at least moderately often, whilst only 25% claim to not support it at all.

Therefore, for whatever reason, many organisations are demonstrably acknowledging the personal aspirations of their secretarial staff, perhaps sponsoring them in training and educational schemes that might render benefits outside of the more immediate needs of task and organisation.

However, it is here that the hint of a contradiction emerges. From the surveys it is evident that significant opportunities for HJE and VRI are perceived to exist by the Secretaries and correspondingly confirmed by the Managers. Moreover, it is apparent that in organisations where HJE and VRI have been introduced, there is a tendency for training programmes to be intentionally geared to such initiatives (see TABLE 8.10 and TABLE 8.15). In also considering the extent of organisational support for aspirational training, it might be reasonably construed that secretarial development receives a fair degree of management approbation, yet the Industrial Society (1993) reports that 53% of polled Secretaries ($N = 396$) perceive their male Managers to be a barrier to their training and developmental opportunities (see *common sources of rater and ratee bias* - CHAPTER FOUR).

Paradoxically, however, the Secretaries' survey reveals that 56% of respondents have no desire to move outside of a conventional secretarial role, which is seemingly at odds with the Industrial Society's disclosure that the larger proportion of Secretaries feel hindered by management from exploiting developmental opportunities. Nevertheless, it may be presumptuous to assert that it is inherent in the nature of individuals to strive for ever higher physiological attainments within their work (Maslow, 1944). Hence, the notion that individual needs may be reversionary (Alderfer, 1972) is intellectually appealing and perhaps helps explain why a large number of Secretaries might wish to remain within their established comfort zone. Moreover, it seems wrong-headed to assume that notions of self-actualisation relate primarily to the workplace, paying little heed to Goldthorpe

and Lockwood et al (1969), who posit that many individuals may view their jobs as sources of income and not as sources of intrinsic satisfaction. Thus, this is a suggested area for further research, where contemporary notions of secretarial ambition (see especially Hepburn, 1991) might perhaps be validated and empirically reconciled with the progressive implementation of horizontal and vertical initiatives.

Weaknesses in the assessment of training and developmental need:

However, a considerable number of Secretaries clearly want to extend their task roles outside of conventional parameters, whilst those who wish to remain within traditional frameworks nonetheless have a similar need to demonstrate proficiency in related foundation skills as well as various vocational competencies. Hence, foundation skills are notionally established as those prescribed by the National Vocational Qualification in Business Administration - Level 1, and it is subsequently apparent that secretarial and administrative support staff are generally considered to be quite satisfactory in their accomplishment (see TABLE 9.6). Thus, deficiencies in such core disciplines are likely to be related to individual ability and application rather than symptomatic of wider educational shortcomings, and may arguably be addressed as remedial rather than developmental issues. Consequently, the compilation of relevant competencies preclude such topics to include only those of a vocational nature that are conceivably important in the development of CONVENTIONAL, HJE and VRI initiatives.

In subsequently analysing the relative importance of such competencies, a conspicuous similarity is evident between the Managers' assessment (see TABLE 9.7) and the Secretaries' (see TABLE 10.18), where the collective rank order between the two populations can be seen to vary by no more than 3 positions over the 25 items. Thus, Managers and Secretaries appear to share common perceptions concerning the importance of various skills, this perhaps being consequential in reconciling need at the three levels of analysis and managing the fit between employee motivation, individual development and organisational change (see *expectations and outcomes* - CHAPTER THREE). Moreover, the Managers' survey shows management assessment to be the most important methodology for evaluating skills and attributes (see TABLE 9.9), feasibly prompting a receptive attitude to those training issues that are mutually valued.

Nevertheless, it is likewise revealed that the performance appraisal procedure is almost equally pre-eminent in the determination of training and developmental need (see also TABLE 10.21), yet it is reportedly used for a number of other administrative purposes (see

TABLE 9.10). However, cautions persist regarding the use of appraisal mechanisms for any other purpose and Cascio (1982) posits that a system that is used for salary administration may not be appropriate for developmental purposes. Hyde and Smith (1982), McAfee (1982) and others, have similarly pointed to the conflict, biases and irregularities that occur when a remunerative link is evident. Equally incisively, Longenecker and Ludwig (1995) refer to managements' 'creative discretion over employee ratings', suggesting a range of well-documented reasons to account for the dishonesty and inaccuracy that frequently accompanies the appraisal process.

Thus, despite a wealth of prescriptive literature, it is evident that organisations continue to imprudently use the mechanism for a number of purposes that detract from its veracity as a needs analysis methodology. Moreover, since Long's (1977) original analysis, training and developmental emphasis has been subsequently displaced by maintenance aspects of the process, thereby introducing a more judgemental bias into the procedure (see TABLE 9.11 and TABLE 9.12). Seemingly, the performance appraisal procedure may be evolving into a mechanism for extending management control, this implicitly undermining its value as a developmental tool and perhaps eventually exposing it to the wider suspicions of employees and practitioners alike. However, the extent that it might be used to engender compliance, control productivity and initiate disciplinary processes, etc., is presently uncharted and is seen as a fruitful and important area for further research.

Nevertheless, management assessment and observed behaviour are also considered by both Managers and Secretaries alike to be important methodologies in the determination of training and developmental needs and appear to be predominant in relation to other approaches such as skills inventories, assessment centres, etc., (see TABLE 9.9 and TABLE 10.21). However, it is seemingly misguided to suppose that a technique exists that is free of the many biases discussed in CHAPTER FOUR, or that practitioners will always remain impartial in their assessment of others. Thus, any procedure that does not recognise the prevalence of bias and concern is debatably flawed and might well be catalytic in the type of discrimination reported by Rosenthal and Jacobson (1968), as well as perhaps erroneously ratifying non-conscious errors of judgement arising from contextual influences on rater encoding and recall (see Woehr and Feldman, 1993).

Behavioural expectations as an area for further research:

In addressing such weaknesses, it is widely held that an assessment mechanism assumes a

greater degree of integrity once judgemental features are excised from the process and its purpose perceived to be solely developmental by all participants (see especially Herbert and Doverspike, 1990). Hence, bias and distortions might still be inherent within the procedure, but the rater or appraiser may be less concerned with manipulating the evaluation in order to meet the expectations and circumstances of the ratee or expedite some other personal or organisational agenda (see Longenecker and Ludwig, 1995).

Nonetheless, it is clearly fallacious to presume that any assessment of Secretaries training and developmental needs might not be influenced by gender-role stereotyping (Schein, 1975), prior leader-member relationships (Duarte et al, 1993), or a raft of trait judgements that might somehow circumscribe their career potential. CHAPTER FIVE subsequently presents a rationale which acknowledges and embraces such preconceptions, developing the premise that rater bias should not be sublimated, but rather articulated in expressions of behavioural expectation that truly reflects rater and/or personal opinion of anticipated performance.

Central to this thread is the notion that a rater's impression of an individual is a legitimate basis for needs analysis insofar as it will almost inevitably influence the tasks and responsibilities that are extended to the ratee. Thus, if a Manager believes that a Secretary might exhibit weaknesses in various untried activities, then HJE and VRI deployment opportunities may well be extended to another who, it is considered, will demonstrate a greater degree of competence. Therefore, operational expedience might supplant appropriate training and development initiatives, whereas a focused analysis of performance expectations in the light of previous critical incidents may provide a pre-emptive mechanism for identifying and addressing management preconceptions.

It is therefore posited that management prejudgements about individuals are central determinants of delegation and will positively or negatively influence assignment decisions. Thus, it is held that such prejudgements must somehow be addressed as training issues in order to firstly, equip individuals with essential skills; and secondly, convey this competence to the relevant supervisor. In subsequently advocating behavioural expectation scales for related needs analysis, the author suggests behavioural anchors as the means of concisely locating expectations of performance and, via a graphic rating scale, proposing to management appropriate training interventions that might elevate or reinforce their expectations.

Thus, CHAPTER FOUR explains the theory underpinning behavioural expectation scales, showing how the seminal ideas of Paterson (1923) merge with the later notions of Smith

and Kendall (1963) and Blood (1974) to structure plausible scenarios which might reveal the rater's expectations of ratee performance in a number of critical situations. Hence, a wide range of simulations can be constructed that might focus performance expectations on dimensions that in turn may be relevant to the individual, task and organisation, and DIAGRAM 5.2 suggests a conceptual paradigm for integrating the three levels of analysis within a tenable diagnostic framework.

Nevertheless, in endeavouring to reconcile and integrate the three levels of analysis it is clearly not sufficient for an individual to demonstrate competence in a task if associated behaviours are at odds with organisational objectives (for example, where a sales administrator displays exceptional product knowledge but is discourteous to customers). Hence, it is counterproductive for individual task performance to be technically excellent, if it is nevertheless incapable of measuring up to those indices of effectiveness that support the organisation's cultural ideal. Thus, for a diagnostic instrument to be substantially effective, it should not only evaluate given task proficiencies but should additionally present the appropriate situational context in which to measure individual and task affinity with organisational goals (see DIAGRAM 5.2 and related discussion).

However, Herbert and Doverspike (1990) posit that "existing literature stops short of detailing how the manager or decision maker is to utilise the performance appraisal information once it has been collected". They go on to propose that "attention should be shifted away from overly simplified prescriptions" towards a procedure which "incorporates the goals of the process, and the constraints of the environment in which it occurs".

Thus, APPENDIX 5 describes the construction of a diagnostic needs analysis instrument which endeavours to incorporate individual and organisational need with contextual issues. It has subsequently been translated into the Java computer language and produced as an evaluation program utilising scenarios suggested by Britannia Airways (see sample narrative - APPENDIX 3). However, its inclusion in this thesis is not intended to imply a measure of validation, nor to suggest an exclusive prescription for the dichotomies presented by other contemporary mechanisms. It is instead ventured as an illustrative procedure that might represent a viable alternative to those appraisal practices that are widely held to introduce distortions and concerns into the needs analysis process.

Therefore, although avoiding the need for face-to-face confrontation, the proposed instrument does not require the practitioner to undertake any procedures that are ostensibly different from those constituting the three most typical needs analysis

methodologies, ie., management assessment, performance appraisal and observed behaviour (see TABLE 9.9). Moreover, being specifically and overtly concerned with the diagnosis of training and developmental need its purpose is perhaps unlikely to be misconstrued and might actively encourage a positive outcome from the biases and preconceptions that have previously afflicted the needs analysis process. Thus, with committed management support, a derivative of the suggested BES process might play a significant part in facilitating the research paradigm and effectively reconciling individual, task and organisational goals.

Acknowledged limitations of the study:

However, in proposing and concluding the case for this study, the limitations of the enquiry are likewise acknowledged.

Firstly, whilst the return rate for the two surveys is sufficiently satisfactory to facilitate meaningful analysis, there is little doubt that the Secretaries elevated level of response indicates a greater degree of salience to the research topic than that reflected by the Managers. Thus it can be surmised that the Secretaries' responses to the survey questions might be more considered than that of the Managers (see Sudman and Bradburn, 1982).

Secondly, CHAPTER SIX describes the rating errors that occur when respondents pre-empt the survey questions or assume a particular convention regarding the notation of the rating graduations. In recounting the various incidences, the phenomenon is not held to be specific to this enquiry and thus might bring into question the absolute veracity of any survey instrument that is based on similar Likert scales.

Thirdly, the survey catchment is particularly concentrated around the South East of England which might, as previously suggested, provide an insufficiently broad demographic spread to facilitate the detection of certain socio-spatial trend effects.

Fourthly, differences between managerial and secretarial perceptions might be more finely discriminated if conjunctively obtained from the same organisations. However, the initial pilot survey indicates a detrimental response rate where there is a reliance on Managers' and Secretaries' questionnaires being processed together.

Fifthly, a positivist approach to the research is adopted which is seemingly most appropriate for exploring and developing a generalised theory of needs analysis.

However, this might have precluded aspects that are especially relevant to individual

organisations yet possibly only revealed from a phenomenologically orientated study. Thus, a qualitative approach might have teased out other issues which may be *i)* singularly relevant to particular organisations, *ii)* specific to certain sets of contextual conditions, or *iii)* subsumed within more conspicuous survey topics.

Notwithstanding such qualifications, the research paradigm, corollaries and hypotheses are crafted around a generalised theory and thus the aforementioned limitations are not considered to have compromised the integrity of the research.

A review of the conceptual research paradigm:

It therefore remains to look back at the conceptual research model (DIAGRAM 5.2) and assess its robustness in light of the subsequent findings. Clearly, outer contextual factors are shown to have a significant influence on the contemporary organisation and therefore the peripheral location of the forces identified by Katz and Kahn (1978) and others is considered justified.

Nonetheless, it is apparent that several factors identified by these authors might have somewhat less of an influence than initially suggested by the literature. For instance, professionalisation effects that may have been consequential at the time of Carr-Saunders and Wilson (1944) now seem addressed by appropriately focused education, proactive successor planning, natural labour displacement and perhaps technological innovation. Moreover, to date there is scant evidence of the pre-eminent 'Professional' prophesied by Handy (1995) and predicted to consign lesser achievers to a life of enforced recreation. However, it may perhaps be argued that the horizontal and vertical transition of secretarial and administrative support staff constitutes a form of professionalisation, but this is possibly too nebulous to fit a generalised methodology and might therefore be effaceously discounted from the paradigm.

Similarly, social movement effects appear to have no statistical significance to the industrial sectors surveyed, yet authors such as Daniels (1980) and Green (1985) have reported extensively on the mobility of office workers and other socio-spatial phenomena such as the 'white collar/blue collar dichotomy' (see CHAPTER ONE). This might point, perhaps, to a limitation of the research, insofar as 53.6% of the survey catchment is concentrated around the South East of England (see TABLE 7.2), thereby depriving the analysis of a broader demographic spread that might serve to reveal intra-sectoral influences. However, this is arguably unavoidable due to the fact that many companies

fitting the 'top company' criteria are either located, or have a major presence, in the London region. Nonetheless, in the case of this investigation socio-spatial effects do not appear to be consequential and thus 'social movements' might reasonably be omitted from a generalised methodology. Conversely, parental interaction does appear to substantially influence the culture of an organisation (see TABLE 7.6 to TABLE 7.8) and probably other areas of inner contextual activity, thereby prompting its inclusion in the model as a dominant outer contextual factor for change.

Moving next to the interplay between the outer and inner contextual aspects of the model, it is quite clear from the enquiry that the retained outer contextual factors have a varying influence on purposes, processes, structure, culture and job technology. Such phenomena is considered at some length in CHAPTER SEVEN to CHAPTER TEN and reviewed earlier in this chapter where their quantifiable effect on strategy, cultural orientation and task role transition is discussed. Hence, the interactivity between these dimensions is demonstrated showing, for instance, how different external forces for change might induce differing applications of HJE, and how certain cultural orientations are seemingly less impacted by technological change or changing markets.

Thus, the literature review, research model and subsequent analytical enquiry are perceivably in accord in supporting a number of propositions which serve to sustain a three level approach to needs analysis, principally:

- 1 Outer contextual factors exert varying forces for organisational change which may additionally be influenced by industrial sector, cultural predisposition and the strategies employed in addressing such forces.
- 2 Influences for change might not necessarily originate from one dimension but may have a causal relationship with other outer contextual factors.
- 3 Differing external influences are likely to modify the purposes of the organisation and have a cascading effect on planning processes, organisational structure, cultural orientation and job technology.
- 4 Organisational purposes and mission might become distorted, misunderstood or platitudinous during dissemination.
- 5 Changes to organisational structure and job technology are facilitative of wider organisational change and might not be particularly concerned with improving individual employee performance at the task level.
- 6 Employee performance might appear competent in procedural terms, yet be at odds

with the organisation's indices of effectiveness and cultural ideals.

- 7 Employees have their own existence, growth and relatedness agendas which may be holistically reconciled with task and organisational needs.
- 8 Organisations are pursuing horizontal and vertical initiatives which might serve to promote the reconciliation of need at the three levels of analysis.

Hence, the importance of integrating individual, task and organisational needs analysis is reinforced and the research model (DIAGRAM 5.2) is perceivably robust as a paradigm for effectively contrasting and unifying the goals of the process. Moreover, in proposing feedback links between training intervention and outcome, the model suggests a practical mechanism for monitoring compliance with organisational objectives and mission, whilst testing for the distortions, misapprehensions and misunderstandings that might sometimes accompany their dissemination (see 4 above).

Finally, in concluding this review of the research model it is posited that the objectives of the study have been effectively met. Thus, in addressing the early precepts of McGehee and Thayer (1961), a diagnostic procedure is suggested that might perceivably facilitate needs analysis at the individual, task and organisational level yet be responsive to the many changes facing administrative support staff and their organisations.

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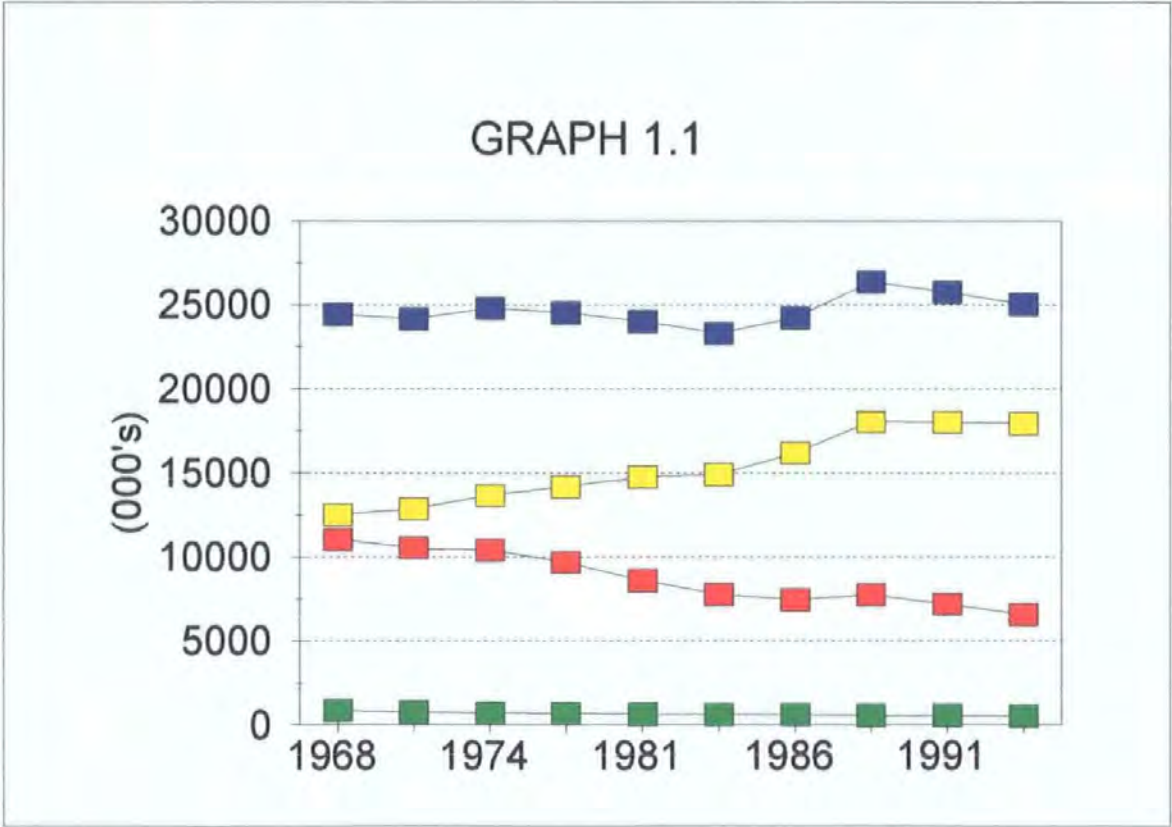
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TABLE 1.1

UNITED KINGDOM TOTAL EMPLOYMENT BY MAJOR SECTOR

		1968	1971	1974	1977	1981	1983	1986	1989	1991	1993
Total Employed	(000's)	24436	24165	24803	24538	24010	23304	24240	26376	25751	25046
Agriculture	(000's)	853	764	699	684	639	622	603	566	560	547
	%	3.5	3.2	2.8	2.8	2.7	2.7	2.5	2.1	2.2	2.2
Industry	(000's)	11053	10534	10428	9673	8592	7770	7453	7756	7185	6565
	%	45.2	43.6	42.0	39.4	35.8	33.3	30.7	29.4	27.9	26.2
Services	(000's)	12532	12868	13676	14181	14779	14913	16184	18054	18006	17934
	%	51.3	53.3	55.1	57.8	61.6	64.0	66.8	68.4	69.9	71.6

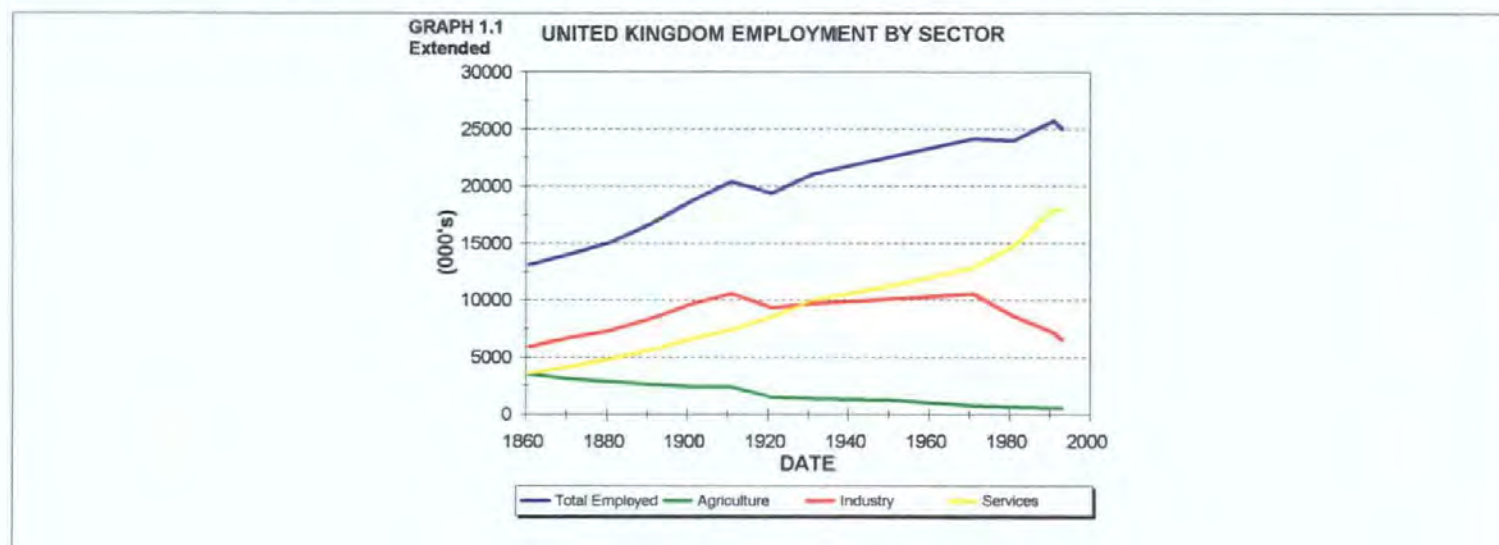


Source: Year Book of Labour Statistics 1968 - 1994 London - HMSO

TABLE 1.1 EXTENDED

UNITED KINGDOM EMPLOYMENT BY MAJOR SECTOR

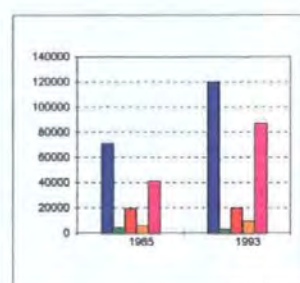
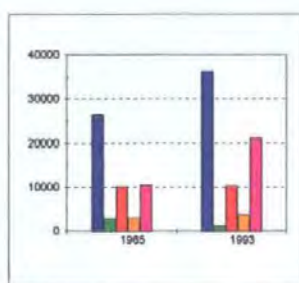
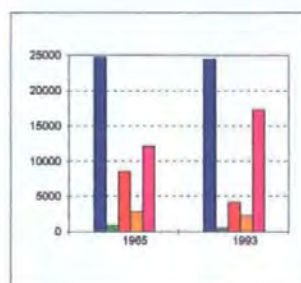
	1861	1871	1881	1891	1901	1911	1921	1931	1951	1971	1981	1991	1993
Total Employed (000's)	13090	14050	15060	16660	18680	20390	19357	21055	22610	24165	24010	25751	25046
Agriculture (000's)	3520	3120	2860	2630	2420	2400	1499	1393	1245	764	639	560	547
%	26.9	22.2	19.0	15.8	13.0	11.8	7.7	6.6	5.5	3.2	2.7	2.2	2.2
Industry (000's)	5955	6720	7336	8370	9650	10570	9323	9679	10086	10534	8592	7185	6565
%	45.5	47.8	48.7	50.2	51.7	51.8	48.2	46.0	44.6	43.6	35.8	27.9	26.2
Services (000's)	3615	4210	4864	5660	6610	7420	8535	9983	11279	12868	14779	18006	17934
%	27.6	30.0	32.3	34.0	35.4	36.4	44.1	47.4	49.9	53.3	61.6	69.9	71.6



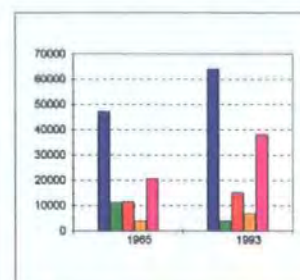
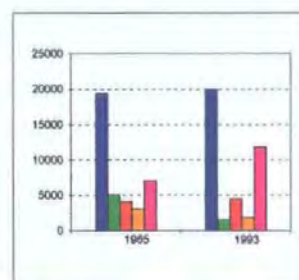
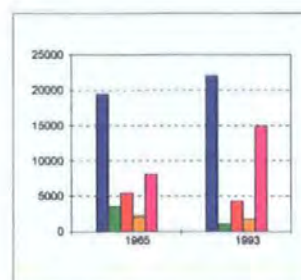
Source: OECD Labour Force Statistics 1990; Year Book of Labour Statistics 1994

Table 1.2: Civilian Employment Comprison 1965 & 1993

	United Kingdom				West Germany				USA			
	1965		1993		1965		1993		1965		1993	
	000's	%	000's	%	000's	%	000's	%	000's	%	000's	%
Total civilian employment	24778		24506		26418		36381		71141		120258	
Agriculture	952	3.8	547	2.0	2876	10.9	1256	4.4	4476	6.3	3300	2.6
Manufacturing	8666	35.0	4253	15.8	10105	38.3	10230	36.0	19194	27.0	19711	15.7
Other industrial	2870	11.6	2312	8.6	2912	11.0	3647	12.8	6017	8.5	9547	7.6
Services	12290	49.6	17394	64.7	10525	39.8	21248	74.7	41454	58.3	87700	69.8



	France				Italy				Japan			
	1965		1993		1965		1993		1965		1993	
	000's	%	000's	%	000's	%	000's	%	000's	%	000's	%
Total civilian employment	19540		22077		19432		20001		47300		64210	
Agriculture	3576	18.3	1101	4.9	5103	26.3	1572	7.3	11130	23.5	3830	6.2
Manufacturing	5485	28.07	4269	19.2	4133	21.3	4542	21.2	11500	24.3	15300	24.8
Other industrial	2304	11.79	1762	7.9	3050	15.7	1936	9.0	3830	8.1	6810	11.0
Services	8175	41.84	14945	67.2	7146	38.8	11951	55.7	20840	44.1	38270	62.0

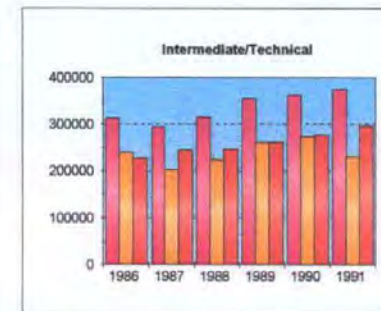
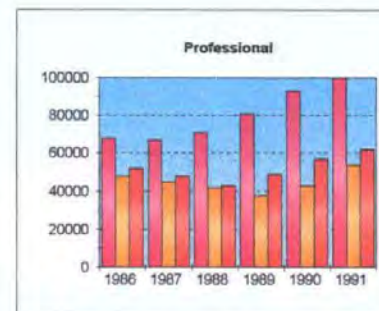


Source: OECD Labour Force Statistics

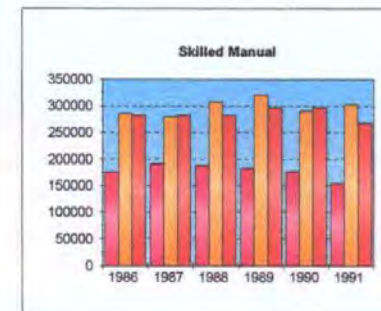
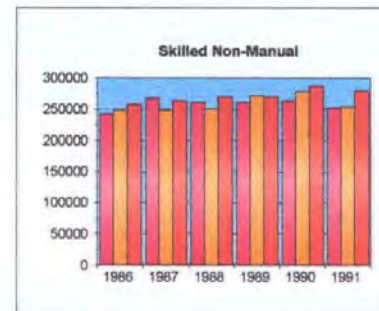
TABLE 1.3

Employment Categories by Selected Locations:

INNER LONDON	1986	1987	1988	1989	1990	1991
Professional	68000	67000	71000	81000	93000	100000
Intermediate/Technical	313000	295000	316000	356000	364000	376000
Skilled Non-Manual	243000	268000	262000	262000	264000	253000
Skilled Manual	176000	192000	189000	183000	177000	155000
Partly Skilled	171000	165000	155000	138000	128000	126000
Unskilled	53000	66000	65000	63000	51000	59000
TOTAL	1024000	1053000	1058000	1083000	1077000	1069000



WEST MIDLANDS METRO	1986	1987	1988	1989	1990	1991
Professional	48000	45000	42000	38000	43000	54000
Intermediate/Technical	240000	203000	225000	262000	274000	231000
Skilled Non-Manual	249000	249000	251000	272000	279000	254000
Skilled Manual	286000	280000	308000	321000	291000	303000
Partly Skilled	191000	208000	219000	219000	208000	199000
Unskilled	53000	60000	64000	67000	62000	59000
TOTAL	1067000	1045000	1109000	1179000	1157000	1100000



GREATER MANCHESTER	1986	1987	1988	1989	1990	1991
Professional	52000	48000	43000	49000	57000	62000
Intermediate/Technical	228000	245000	247000	262000	277000	297000
Skilled Non-Manual	258000	264000	270000	270000	288000	280000
Skilled Manual	283000	283000	283000	297000	297000	268000
Partly Skilled	209000	197000	194000	200000	182000	194000
Unskilled	66000	62000	69000	67000	51000	65000
TOTAL	1096000	1099000	1106000	1145000	1152000	1166000

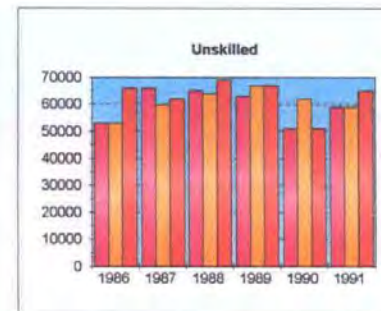
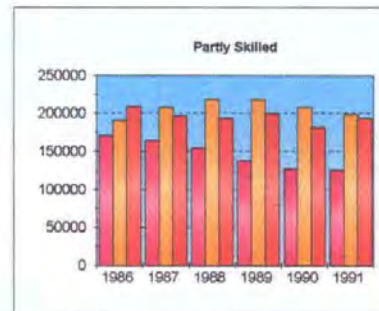
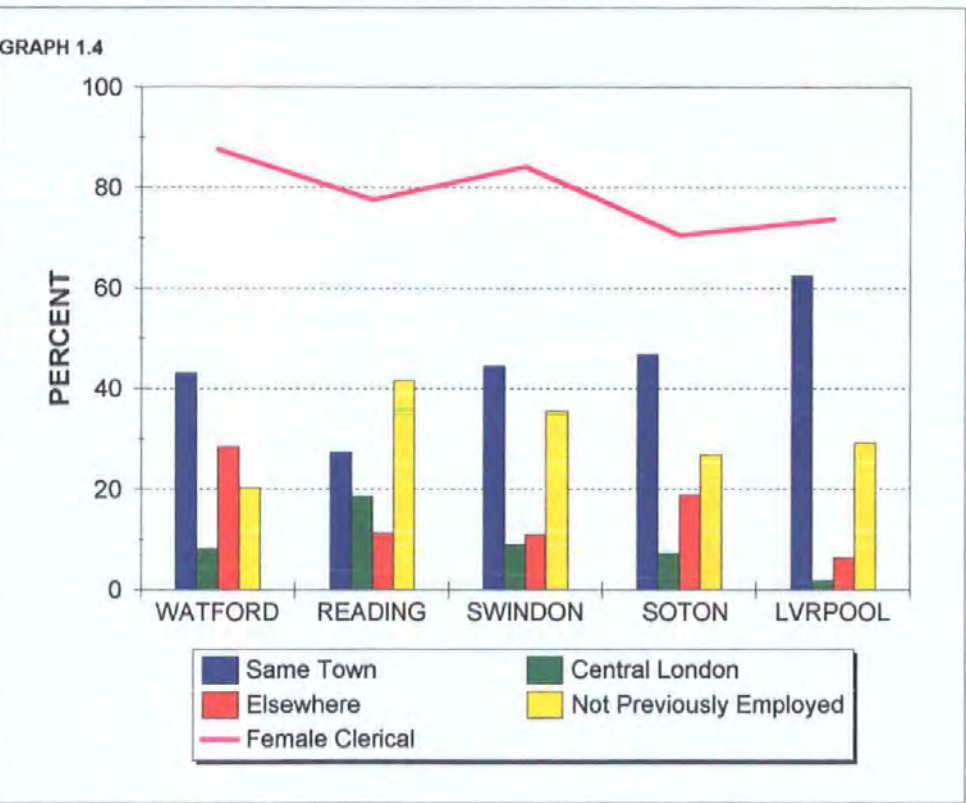


TABLE 1.4

CLERICAL EMPLOYMENT ANALYSIS BY LOCATION

		WATFORD	READING	SWINDON	SOTON	LVRPOOL
PREVIOUS WORKPLACE						
Same Town	%	43.2	27.4	44.5	46.9	62.5
Central London	%	8.1	18.6	8.9	7.2	1.8
Elsewhere	%	28.4	11.3	11.0	18.9	6.4
Not Previously Employed	%	20.3	41.6	35.6	26.9	29.2
% FEMALE		87.5	77.6	84.1	70.5	73.7
No. of Offices Surveyed	N	222	539	607	360	171



Source: Daniels PW (1980) Office Location and the Journey to Work Gower Publishing

TRAINING IMPLICATIONS OF THE CHANGING TASK ROLES OF *ADMINISTRATIVE SUPPORT PERSONNEL*

A research study by the Plymouth Business School, University of Plymouth

This questionnaire forms part of a research study into the changing job roles of secretarial and administrative support staff and is being sent to a small number of executive directors and senior managers from selected UK companies.

It should take less than 20 minutes to complete and will be invaluable in helping us to:-

- (a) establish the main factors currently influencing the job roles of secretarial and administrative support staff;
- (b) examine the implications of change on their training and development needs;
and
- (c) devise an instrument that will facilitate the effective diagnosis of their training needs.

Your views will be particularly welcomed for adding a strategic and cultural perspective to the survey and will be treated in the strictest confidence.

Questions 1 & 2 are included solely to assist the analysis of sectoral and regional differences.

Q1. Please ascribe 'A' to the principal business activity at your location, and 'P' to that of your parent organisation if you have one:

- | | | |
|------|--------------------------|---|
| 1.01 | <input type="checkbox"/> | Agriculture, Forestry & Fishing |
| 1.02 | <input type="checkbox"/> | Mining of Minerals, Ores, Metals & Chemical Processing |
| 1.03 | <input type="checkbox"/> | Construction & Civil Engineering |
| 1.04 | <input type="checkbox"/> | Metal Goods, Engineering & Vehicle Manufacturing Industries |
| 1.05 | <input type="checkbox"/> | Electrical Engineering, Electronics & Aerospace Industries |
| 1.06 | <input type="checkbox"/> | Other Manufacturing Industries |
| 1.07 | <input type="checkbox"/> | Transportation, Communication, Gas, Electricity & Water |
| 1.08 | <input type="checkbox"/> | Wholesale & Petroleum Products |
| 1.09 | <input type="checkbox"/> | Retail, Restaurant & Alcoholic Drinks Trade |
| 1.10 | <input type="checkbox"/> | Finance, Insurance & Real Estate |
| 1.11 | <input type="checkbox"/> | Business Services & Hotels |
| 1.12 | <input type="checkbox"/> | Health, Education & Social Services |
| 1.13 | <input type="checkbox"/> | Public Administration, Law Enforcement & Armed Services |

Q2. Please tick the geographic location at which you are usually based:

- | | | |
|------|--------------------------|--------------------|
| 2.01 | <input type="checkbox"/> | Scotland |
| 2.02 | <input type="checkbox"/> | Northern Ireland |
| 2.03 | <input type="checkbox"/> | Wales |
| 2.04 | <input type="checkbox"/> | North East England |
| 2.05 | <input type="checkbox"/> | North West |
| 2.06 | <input type="checkbox"/> | Midlands |
| 2.07 | <input type="checkbox"/> | East Anglia |
| 2.08 | <input type="checkbox"/> | South East |
| 2.09 | <input type="checkbox"/> | London |
| 2.10 | <input type="checkbox"/> | South West |



Q3. If you have a parent organisation, please tick its geographic origin:

- | | | |
|------|--|-------------------------|
| 3.01 | | United Kingdom |
| 3.02 | | Elsewhere in Europe |
| 3.03 | | Asia |
| 3.04 | | Africa |
| 3.05 | | North America |
| 3.06 | | South America |
| 3.07 | | Australia & New Zealand |

Q4. How important to your company's success are each of the following cultural features?

- | | |
|------|-----------------------------|
| 4.01 | Market responsive |
| 4.02 | Innovative |
| 4.03 | Results and goal orientated |
| 4.04 | Technologically orientated |
| 4.05 | Quality centred |
| 4.06 | Employee centred |
| 4.07 | Customer focused |
| 4.08 | Community centred |
| 4.09 | Other |

PLEASE SPECIFY

[illegible]

- Q5.** How similar is your company's culture to that of your parent organisation?

N/A	
-----	--

VERY SIMILAR		QUITE SIMILAR		NEITHER DISSIMILAR NOR SIMILAR		QUITE DISSIMILAR		VERY DISSIMILAR	
1		2		3		4		5	

Please tick as appropriate, eg:-

	3	<input checked="" type="checkbox"/>	
--	---	-------------------------------------	--

Q6. How much organisational change has been induced by each of the following during the past five years?

- | | |
|------|-------------------------------|
| 6.01 | National economy |
| 6.02 | Changing markets |
| 6.03 | Business diversification |
| 6.04 | Technological change |
| 6.05 | Foreign competition |
| 6.06 | Efficiency improvements |
| 6.07 | Resource cost or availability |
| 6.08 | Legal or political pressure |
| 6.09 | Decentralisation |
| 6.10 | Other |

PLEASE SPECIFY

[illegible]

APPENDIX 1

Q7. To what degree is such change affecting the job roles of your company's secretarial and administrative support staff?

NOT AT ALL		MINOR DEGREE		MODERATE DEGREE		MARKED DEGREE		CONSIDERABLE DEGREE	
1		2		3		4		5	

Q8. Is such change presenting more or less career opportunities to your company's secretarial and administrative support staff?

CONSIDERABLY MORE		MORE		ABOUT THE SAME		LESS		CONSIDERABLY LESS	
1		2		3		4		5	

Q9. To what extent has new office technology changed the job roles of your company's secretarial and administrative support staff?

NO CHANGE		LITTLE CHANGE		MODERATE CHANGE		MARKED CHANGE		CONSIDERABLE CHANGE	
1		2		3		4		5	

Q10. *Vertical role integration occurs when an employee regularly undertakes work of a supervisory or monitorial nature normally outside of his/her task role. It can involve deputising for a superior, accepting responsibility for a project, monitoring quality, measuring work output, etc., and perceptively, but not necessarily officially, raises the individual's level of authority.*

Within each of your company's functional areas, to what degree are your secretarial and administrative support staff becoming involved in vertical role integration?

- 10.01 Central administration
- 10.02 Data processing
- 10.03 Design
- 10.04 Finance
- 10.05 Personnel
- 10.06 Production
- 10.07 Public relations
- 10.08 Purchasing
- 10.09 Quality control
- 10.10 Research & development
- 10.11 Sales & marketing
- 10.12 Other

PLEASE SPECIFY

NOT AT ALL OR N/A	MINOR DEGREE	MODERATE DEGREE	MARKED DEGREE	CONSIDERABL DEGREE

Q11. To what degree are training programmes for secretarial and administrative support staff intended to assist such vertical role integration?

NOT AT ALL		MINOR DEGREE		MODERATE DEGREE		MARKED DEGREE		CONSIDERABLE DEGREE	
1		2		3		4		5	

APPENDIX 1

Q12. *Horizontal job enlargement occurs when an employee regularly undertakes work normally considered to be outside of his/her task role. It is typically of a functional nature (eg., finance, personnel, marketing, public relations, data processing) and may, but not necessarily, have previously been actioned by professionally qualified or specialist staff.*

Within each of your company's functional areas, to what degree are your secretarial and administrative support staff becoming involved in horizontal job enlargement?

- 12.01 Central administration
- 12.02 Data processing
- 12.03 Design
- 12.04 Finance
- 12.05 Personnel
- 12.06 Production
- 12.07 Public relations
- 12.08 Purchasing
- 12.09 Quality control
- 12.10 Research & development
- 12.11 Sales & marketing
- 12.12 Other

PLEASE SPECIFY

NOT AT ALL OR N/A	MINOR DEGREE	MODERATE DEGREE	MARKED DEGREE	CONSIDERABLE DEGREE

Q13. To what degree are training programmes for secretarial and administrative support staff intended to assist such horizontal job enlargement?

NOT AT ALL		MINOR DEGREE		MODERATE DEGREE		MARKED DEGREE		CONSIDERABLE DEGREE	
1		2		3		4		5	

Q14. How often does your company sponsor the training of secretarial and administrative support staff in topics that are related to their personal aspirations rather than their current or future job roles?

NOT AT ALL		NOT VERY OFTEN		MODERATELY OFTEN		QUITE OFTEN		VERY OFTEN	
1		2		3		4		5	

TASK SKILLS AND COMPETENCIES

Q15. In general, how satisfactory are your secretarial and administrative support staff at oral communications?

- eg: Establishing rapport and empathy with the listener
Listening, interpreting, and extracting information
Using questioning skills to check understanding and seek additional information
Adopting appropriate tone, style, vocabulary
Accurately relaying information to third parties

VERY SATISFACTORY		QUITE SATISFACTORY		NEITHER SATISFACTORY NOR UNSATISFACTORY		QUITE UNSATISFACTORY		VERY UNSATISFACTORY	
1		2		3		4		5	

APPENDIX 1

Q16. In general, how satisfactory are your secretarial and administrative support staff at written communications?

- eg: *Adopting an appropriate style*
 Identifying the needs of the recipient
 Constructing grammatically correct sentences
 Using appropriate language and format
 Employing correct punctuation and spelling
 Producing literature that is relevant, focused and intelligible

VERY SATISFACTORY		QUITE SATISFACTORY		NEITHER SATISFACTORY NOR UNSATISFACTORY		QUITE UNSATISFACTORY		VERY UNSATISFACTORY	
1		2		3		4		5	

Q17. In general, how satisfactory are your secretarial and administrative support staff at performing elementary numerical tasks?

- eg: *Undertaking basic arithmetical calculations*
 Using simple graphs and statistics
 Accurately accomplishing stock or cash audits
 Maintaining basic stock or financial records

VERY SATISFACTORY		QUITE SATISFACTORY		NEITHER SATISFACTORY NOR UNSATISFACTORY		QUITE UNSATISFACTORY		VERY UNSATISFACTORY	
1		2		3		4		5	

Q18. In general, how satisfactory are your secretarial and administrative support staff at interpersonal and social skills?

- eg: *Reflecting your organisation's public image and mission values*
 Responding appropriately to verbal and non-verbal communication
 Treating colleagues as internal customers
 Winning over difficult or aggressive customers
 Co-operating enthusiastically in unique or unusual situations
 Resolving conflict and difficulties in working relationships

VERY SATISFACTORY		QUITE SATISFACTORY		NEITHER SATISFACTORY NOR UNSATISFACTORY		QUITE UNSATISFACTORY		VERY UNSATISFACTORY	
1		2		3		4		5	

Q19. In general, how satisfactory are your secretarial and administrative support staff in the application of new office technology

- eg: *Text processing*
 Information monitoring and scanning
 Information filtering and selection
 Information editing and summarising
 Information presentation
 Information storage and retrieval

VERY SATISFACTORY		QUITE SATISFACTORY		NEITHER SATISFACTORY NOR UNSATISFACTORY		QUITE UNSATISFACTORY		VERY UNSATISFACTORY	
1		2		3		4		5	

APPENDIX 1

Q20. How important are each of the following skills in equipping your secretarial and administrative staff for horizontal job enlargement and/or vertical role integration?

		VERY IMPORTANT	QUITE IMPORTANT	NEITHER UNIMPORTANT NOR IMPORTANT	QUITE UNIMPORTANT	VERY UNIMPORTANT
20.01	Assertiveness					
20.02	Business awareness					
20.03	Computer literacy					
20.04	Counselling					
20.05	Decision-making					
20.06	Delegating					
20.07	Financial awareness					
20.08	Information technology					
20.09	Interpersonal skills					
20.10	Language skills					
20.11	Negotiating					
20.12	Organising abilities					
20.13	Personnel systems awareness					
20.14	Presentation and briefing					
20.15	Product knowledge					
20.16	Project control techniques					
20.17	Purchasing skills					
20.18	Quality control techniques					
20.19	Report writing					
20.20	Selling techniques					
20.21	Statistical analysis					
20.22	Supervisory skills					
20.23	Team-working abilities					
20.24	Time management					
20.25	Word processing					
20.26	Other					

PLEASE SPECIFY

NEEDS ANALYSIS AND APPRAISAL

Q21. The training and development needs of employees may be identified in various ways. Within your organisation, how important are each of the following methods for evaluating the skills and attributes of your secretarial and administrative support staff?

		VERY IMPORTANT	QUITE IMPORTANT	NEITHER UNIMPORTANT NOR IMPORTANT	QUITE UNIMPORTANT	VERY UNIMPORTANT
21.01	Manager assessment					
21.02	Formal performance appraisal					
21.03	Internal job applications					
21.04	Employee skills inventory					
21.05	Observed work behaviour					
21.06	Career counselling					
21.07	Assessment centre or panel					
21.08	Trial and error					
21.09	Other					

PLEASE SPECIFY

APPENDIX 1

Q22. If your company has adopted performance appraisal practices, please rate the importance of each of the following objectives?

		VERY IMPORTANT	QUITE IMPORTANT	NEITHER UNIMPORTANT NOR IMPORTANT	QUITE UNIMPORTANT	VERY UNIMPORTA
22.01	Setting performance goals					
22.02	Achieving performance					
22.03	Boosting staff performance					
22.04	Comparing employee skills					
22.05	Reviewing staff performance					
22.06	Assessing promotability					
22.07	Compiling skills inventories					
22.08	Determining training needs					
22.09	Establishing salary levels					
22.10	Motivating employees					
22.11	Encouraging staff feedback					
22.12	Other					

PLEASE SPECIFY

Q23. Would you like to know the results of this survey?

YES	
-----	--

NO	
----	--

Q24. Would you like to be kept informed of our progress in this area of research?

YES	
-----	--

NO	
----	--

If you answered YES to Q23 and/or Q24 above, please write your name and company details in this panel:

NAME.....

POSITION.....

COMPANY.....

ADDRESS.....

.....

.....

POSTCODE.....

Thank you for your valued assistance in completing this questionnaire.
If you have any comments regarding the style, content or terminology they will be greatly appreciated:

.....

.....

.....

.....

PLEASE RETURN THE COMPLETED QUESTIONNAIRE TO:

UNIVERSITY OF PLYMOUTH

FREEPOST

PLYMOUTH BUSINESS SCHOOL

PLYMOUTH

PL1 1BR

c/o LEAT MJ

THE INFLUENCE OF CHANGE ON THE TRAINING AND DEVELOPMENTAL NEEDS OF SECRETARIES

A research study by the Plymouth Business School, University of Plymouth

This questionnaire forms part of a unique research study into the changing job roles, training needs and aspirations of secretarial personnel and is being sent to a small number of secretaries from a range of UK companies.

It should take approximately 10 minutes to complete and will provide invaluable help in enabling us to develop an instrument that can accurately diagnose developmental needs as an aid to optimising individual potential.

There is no way that you or your organisation can be identified from the survey and so, if you would like future information on the changing role of the secretary, please complete the appropriate panel with either your home or company address.

Your kind support is gratefully appreciated.

In answering the following questions please place a tick in the appropriate box or boxes:

S1. Which one of the industrial categories below most appropriately describes the main business activity at your place of work:

- | | | |
|------|--------------------------|---|
| 1.01 | <input type="checkbox"/> | Agriculture, Forestry & Fishing |
| 1.02 | <input type="checkbox"/> | Mining of Minerals, Ores, Metals & Chemical Processing |
| 1.03 | <input type="checkbox"/> | Construction & Civil Engineering |
| 1.04 | <input type="checkbox"/> | Metal Goods, Engineering & Vehicle Manufacturing Industries |
| 1.05 | <input type="checkbox"/> | Electrical Engineering, Electronics & Aerospace Industries |
| 1.06 | <input type="checkbox"/> | Other Manufacturing Industries |
| 1.07 | <input type="checkbox"/> | Transportation, Communication, Gas, Electricity & Water |
| 1.08 | <input type="checkbox"/> | Wholesale & Petroleum Products |
| 1.09 | <input type="checkbox"/> | Retail, Restaurant & Alcoholic Drinks Trade |
| 1.10 | <input type="checkbox"/> | Finance, Insurance & Real Estate |
| 1.11 | <input type="checkbox"/> | Business Services & Hotels |
| 1.12 | <input type="checkbox"/> | Health, Education & Social Services |
| 1.13 | <input type="checkbox"/> | Public Administration, Law Enforcement & Armed Services |

S2. In which one of the following geographic locations do you usually work:

- | | | |
|------|--------------------------|--------------------|
| 2.01 | <input type="checkbox"/> | Scotland |
| 2.02 | <input type="checkbox"/> | Northern Ireland |
| 2.03 | <input type="checkbox"/> | Wales |
| 2.04 | <input type="checkbox"/> | North East England |
| 2.05 | <input type="checkbox"/> | North West |
| 2.06 | <input type="checkbox"/> | Midlands |
| 2.07 | <input type="checkbox"/> | East Anglia |
| 2.08 | <input type="checkbox"/> | South East |
| 2.09 | <input type="checkbox"/> | London |
| 2.10 | <input type="checkbox"/> | South West |



APPENDIX 2

S3. In which one of the following functional activities are you mainly employed at the present time?

3.01	<input type="checkbox"/>	Central administration
3.02	<input type="checkbox"/>	Data processing
3.03	<input type="checkbox"/>	Design
3.04	<input type="checkbox"/>	Finance
3.05	<input type="checkbox"/>	Personnel & training
3.06	<input type="checkbox"/>	Production
3.07	<input type="checkbox"/>	Public relations
3.08	<input type="checkbox"/>	Purchasing
3.09	<input type="checkbox"/>	Quality control
3.10	<input type="checkbox"/>	Research & development
3.11	<input type="checkbox"/>	Sales & marketing
3.12	<input type="checkbox"/>	Stock control & distribution
3.13	<input type="checkbox"/>	Other

PLEASE SPECIFY

S4. How important do you think each of the following cultural features are in your present company?

		VERY IMPORTANT	QUITE IMPORTANT	NEITHER UNIMPORTANT NOR IMPORTANT	QUITE UNIMPORTANT	VERY UNIMPORTANT
4.01	Market responsive					
4.02	Innovative					
4.03	Results and goal orientated					
4.04	Technologically orientated					
4.05	Quality centred					
4.06	Employee centred					
4.07	Customer focused					
4.08	Community centred					
4.09	Other					

PLEASE SPECIFY

S5. To what extent is the introduction of new office technology affecting your job?

NOT AT ALL		MINOR EXTENT		MODERATE EXTENT		MARKED EXTENT		CONSIDERABLE EXTENT	
1		2		3		4		5	

S6. Is this technological change presenting you with more or less career opportunities?

CONSIDERABLY MORE		MORE		ABOUT THE SAME		LESS		CONSIDERABLY LESS	
1		2		3		4		5	

S7. To what extent are other changes within your organisation affecting your job?

NOT AT ALL		MINOR EXTENT		MODERATE EXTENT		MARKED EXTENT		CONSIDERABLE EXTENT	
1		2		3		4		5	

S8. Are these organisational changes presenting you with more or less career opportunities?

CONSIDERABLY MORE		MORE		ABOUT THE SAME		LESS		CONSIDERABLY LESS	
1		2		3		4		5	

APPENDIX 2

S9. Which one of the following **most closely** matches your long-term career aspirations:

- 9.01 ☐ Continue at the same level in your present position, or in a similar role
..... Please go to S12.
- 9.02 ☐ Develop your present role with a view to achieving more senior status and influence
..... Please go to S12.
- 9.03 ☐ Enlarge your role to encompass other specialist activities such as personnel, finance, etc
..... Please go to S10.
- 9.04 ☐ Extend your role to increase supervisory or managerial responsibilities
..... Please go to S11.

S10. Given that you wish to enlarge your role to encompass other specialist activities (see S9.03), how much opportunity do you realistically think you have to achieve this in each of the following?

	N/A OR NO OPPORTUNITY	MINOR OPPORTUNITY	MODERATE OPPORTUNITY	MARKED OPPORTUNITY	CONSIDERABLE OPPORTUNITY
10.01 Central administration					
10.02 Data processing					
10.03 Design					
10.04 Finance					
10.05 Personnel					
10.06 Production					
10.07 Public relations					
10.08 Purchasing					
10.09 Quality control					
10.10 Research & development					
10.11 Sales & marketing					
10.12 Stock control & distribution					
10.13 Other					

PLEASE SPECIFY

Please go to S12.

S11. Given that you wish to extend your role to include more duties of a supervisory or managerial nature (see S9.04), how much opportunity do you realistically think you have to achieve this in each of the following?

	N/A OR NO OPPORTUNITY	MINOR OPPORTUNITY	MODERATE OPPORTUNITY	MARKED OPPORTUNITY	CONSIDERABLE OPPORTUNITY
11.01 Central administration					
11.02 Data processing					
11.03 Design					
11.04 Finance					
11.05 Personnel					
11.06 Production					
11.07 Public relations					
11.08 Purchasing					
11.09 Quality control					
11.10 Research & development					
11.11 Sales & marketing					
11.12 Stock control & distribution					
11.13 Other					

PLEASE SPECIFY

Please go to S12.

APPENDIX 2

S12. Considering your answers regarding the changing demands of your job and your personal career aspirations, how important is it that you are, or become, competent in each of the following?

	VERY IMPORTANT	QUITE IMPORTANT	NEITHER UNIMPORTANT NOR IMPORTANT	QUITE UNIMPORTANT	VERY UNIMPORTANT
12.01 Assertiveness					
12.02 Business awareness					
12.03 Computer literacy					
12.04 Counselling					
12.05 Decision-making					
12.06 Delegating					
12.07 Financial awareness					
12.08 Information technology					
12.09 Interpersonal skills					
12.10 Language skills					
12.11 Negotiating					
12.12 Organising abilities					
12.13 Personnel systems awareness					
12.14 Presentation and briefing					
12.15 Product knowledge					
12.16 Project control techniques					
12.17 Purchasing skills					
12.18 Quality control techniques					
12.19 Report writing					
12.20 Selling techniques					
12.21 Statistical analysis					
12.22 Supervisory skills					
12.23 Team-working abilities					
12.24 Time management					
12.25 Word processing					
12.26 Other					

PLEASE SPECIFY

Q13. The following are mechanisms commonly used to determine the training and developmental needs of secretaries. In your opinion, how much importance is placed on each by your company?

	VERY IMPORTANT	QUITE IMPORTANT	NEITHER UNIMPORTANT NOR IMPORTANT	QUITE UNIMPORTANT	VERY UNIMPORTANT
13.01 Manager assessment					
13.02 Formal performance appraisal					
13.03 Internal job applications					
13.04 Skills audit					
13.05 Observed work performance					
13.06 Career counselling					
13.07 Assessment centre or panel					
13.08 Trial and error					
13.09 Other					

PLEASE SPECIFY

APPENDIX 2

S14. In which of the following topics have you undergone some training since joining your present company?

14.01	<input type="checkbox"/>	Assertiveness
14.02	<input type="checkbox"/>	Business awareness
14.03	<input type="checkbox"/>	Computer literacy
14.04	<input type="checkbox"/>	Counselling
14.05	<input type="checkbox"/>	Decision-making
14.06	<input type="checkbox"/>	Delegating
14.07	<input type="checkbox"/>	Financial awareness
14.08	<input type="checkbox"/>	Information technology
14.09	<input type="checkbox"/>	Interpersonal skills
14.10	<input type="checkbox"/>	Language skills
14.11	<input type="checkbox"/>	Negotiating
14.12	<input type="checkbox"/>	Organising abilities
14.13	<input type="checkbox"/>	Personnel systems awareness
14.14	<input type="checkbox"/>	Presentation and briefing
14.15	<input type="checkbox"/>	Product knowledge
14.16	<input type="checkbox"/>	Project control techniques
14.17	<input type="checkbox"/>	Purchasing skills
14.18	<input type="checkbox"/>	Quality control techniques
14.19	<input type="checkbox"/>	Report writing
14.20	<input type="checkbox"/>	Selling techniques
14.21	<input type="checkbox"/>	Statistical analysis
14.22	<input type="checkbox"/>	Supervisory skills
14.23	<input type="checkbox"/>	Team-working abilities
14.24	<input type="checkbox"/>	Time management
14.25	<input type="checkbox"/>	Word processing
14.26	<input type="checkbox"/>	Other

PLEASE SPECIFY

S15. Have you considered obtaining, or gained, a recognised qualification in the following areas?

		NOT CONSIDERED	MIGHT CONSIDER	PRESENTLY CONSIDERING	CURRENTLY STUDYING	QUALIFICATION OBTAINED
15.01	Vocational (NVQ; RSA; Pitman)					
15.02	Professional cert/dip (eg., IPD)					
15.03	Management (eg., DMS; MBA)					
15.04	Degree programme					

Thank you for your valued assistance in completing this questionnaire.
If you would like future information on the changing role of the secretary please complete the following panel:

NAME

ADDRESS

.....

.....

POSTCODE

PLEASE RETURN THE COMPLETED QUESTIONNAIRE TO:

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c/o LEAT MJ

Behavioural Expectation Scales for Britannia Airways

Assertiveness

Task Effectiveness

If this individual was given a task which she/he might not complete because of her/his current workload, I would expect her/him to:

- 5 Politely explain the time constraint and seek advice as to whether the new task should take priority over other scheduled work.
- 4 Agree to perform the task but only after pointing out that other work might suffer as a consequence.
- 3 Readily accept the task without comment and work towards its completion knowing that it might nevertheless be unachievable.
- 2 Eventually accept the task after being talked around with a measure of coercion or cajoling.
- 1 Resolutely refuse to undertake the task on the basis that she/he is too busy with other work.

Assertiveness

Human Relationships

If this individual was experiencing conflict with a departmental colleague, I would expect her/him to:

- 5 Confidently and calmly approach the colleague in private and attempt to determine and address the issues between them.
- 4 Seek advice from manager how to best deal with the situation.
- 3 Stoically internalise any ill-feeling from the colleague, believing the conflict to be the other's problem.
- 2 Put a civil countenance on face-to-face encounters, but seek every opportunity to run down the colleague with others.
- 1 Become heated, agitated and uncooperative in any dealings with the colleague.

APPENDIX 3

Assertiveness

Communications

If this individual was a participant in a situation such as a meeting where other participants were extremely vociferous, I would expect her/him to:

- 5 Confidently yet firmly express her/his viewpoint, remaining calm yet controlled in the face of opposition.
- 4 Express own opinion, but frequently become dissuaded from own point of view by the arguments of others.
- 3 Remain quiet and reserved, giving opinions only when specifically sought by others.
- 2 Express ideas with clarity, but tending to be defensive and argumentative when challenged on own ideas.
- 1 Become loud and overbearing when expressing personal viewpoints, particularly when the opinions of others differ from own.

Assertiveness

Delegating

If this individual had the need to delegate to a subordinate who was frequently garrulous and uncooperative, I would expect her/him to:

- 5 Delegate confidently to the subordinate, ensuring that task objectives are concise with measures and responsibilities well defined.
- 4 Give clear task objectives yet frequently intervene, thereby only partially delegating the task.
- 3 Delegate the task in an ineffectual manner, necessitating her/him having to personally complete the task.
- 2 Present all relevant information but abdicate responsibility, leaving the success or failure of the task entirely with the subordinate.
- 1 Make task details extremely specific to the point that little or no responsibility is conferred on the subordinate.

APPENDIX 3

Information Technology

Equipment

If this individual was asked to specify a range of office equipment required to support a growing operation, I would expect her/him to:

- 5 Competently research and locate sources of appropriate equipment, arranging demonstrations and submitting recommendations.
- 4 Appropriately research and demonstrate a working knowledge of contemporary technology, yet not feel sufficiently confident to offer recommendations.
- 3 Show an awareness of new office technology and be capable of researching new equipment and applications for others to evaluate.
- 2 Demonstrate a sound knowledge of in-house equipment, but show reluctance to research new equipment, methods and applications.
- 1 Show very little knowledge of new office technology and be reluctant to become involved in the activity.

Information Technology

Using IT

If this individual was asked to assist in the computerisation of various office records, I would expect her/him to:

- 5 Use database and spreadsheet packages to develop own ideas and create working models of appropriate processes.
- 4 Demonstrate a good working knowledge of different software applications and how each might be employed in the task.
- 3 Accurately translate the ideas of others onto appropriate software applications.
- 2 Efficiently input and manipulate data in specific software packages that are widely used by the organisation.
- 1 Have little knowledge of the software used by the organisation and unable to input data without assistance.

APPENDIX 3

Information Technology

Computer Literacy

If this individual was given a document that was complete in terms of content but requires text setting and the addition of appropriate graphics, I would expect her/him to:

5. Creatively use word-processing, desk-top publishing and appropriate diagrams, charts and tables to produce a visually compelling and professional document.
4. Employ word-processing, desk-top publishing and various graphical enhancements to produce a document that represents a good in-house standard.
3. Competently utilise standard text-editing processes to satisfactorily set the document, but be reticent or unable to use graphical techniques to illustrate the document.
2. Be capable of accurately keying in the text and data, but exhibiting very limited expertise and imagination in the setting of the document.
1. Be incapable of keying in text and data without significant errors and omissions and unable to set the document to any acceptable house style or standard.

Business Awareness

Analytical Methods

If this individual was asked to assist in the justification of equipment requiring significant capital expenditure, I would expect her/him to:

- 5 Undertake a comprehensive cost benefit analysis, showing short, medium and long-term projections within the context of the total business.
- 4 Competently produce a cost benefit analysis without necessarily appreciating the acquisition's wider contribution to overall business success.
- 3 Thoroughly research the purchase, compiling essential data that will enable others to develop an appropriate justification.
- 2 Capably research and compile data for a cost benefit analysis if provided with adequate guidance.
- 1 Be unable to determine which data might be important for the justification and be oblivious to the wider implications of the purchase.

APPENDIX 3

Business Awareness

Business Appreciation

If this individual was informed that a particular delay would have a significantly adverse effect on the profitability of a service, I would expect her/him to:

- 5 Fully appreciate the implications of the delay on revenue, direct labour, overhead costs and corporate reputation.
- 4 Be aware of some of the more obvious effects on income and demonstrate a passing knowledge of cost influences.
- 3 Show a superficial grasp of the wider business implications yet fully appreciate the seriousness of the situation.
- 2 Demonstrate minimal understanding of cost/revenue effects but be very aware of the delay's effect on own departmental responsibilities.
- 1 Be quite oblivious to the real effects of the delay.

Interpersonal Skills

Influencing and Persuading

If this individual needed to ask colleagues to perform a task that they would almost certainly not wish to do, I would expect her/him to:

- 5 Present the task in a perceptive, sensitive manner, such that colleagues will feel sufficiently motivated to enthusiastically accomplish it.
- 4 Persistently cajole colleagues into giving a commitment to perform the task, albeit with little enthusiasm.
- 3 Call on friendships and previous favours to gain colleagues' grudging agreement to complete the task.
- 2 Compromise, perhaps proposing that she/he will complete certain aspects of the task if colleagues accomplish the remainder.
- 1 Be unlikely to persuade colleagues to perform any task which they consider unpleasant.

APPENDIX 3

Interpersonal Skills

Written Communications

If this individual was required to write an explanatory letter to a disgruntled customer, I would expect her/him to:

- 5 Accurately pitch the letter, adopting a sensitive approach that is likely to appease the customer yet not compromise the company.
- 4 Adopt an open, sympathetic style that demonstrates genuine concern, yet might lack a measure of insight in the interpretation and solutioning of the issue.
- 3 Produce a considered yet standard response which is likely to neither perpetuate nor resolve the situation.
- 2 Reflect a matter-of-fact position that appears devoid of sensitivity and customer concern, potentially aggravating the grievance.
- 1 State in very blunt terms why the customer is directly responsible for the circumstances leading to the complaint.

Interpersonal Skills

Verbal Communications

If this individual was require to convey an important, complex instruction to each individual member of a large department, I would expect her/him to:

- 5 Adopt an appropriate style and accurately relay the instruction, checking that each recipient has absorbed and understood the communication.
- 4 Accurately convey instruction and test comprehension, yet may exhibit a somewhat inflexible delivery style.
- 3 Relay information accurately and check understanding, but may appear insensitive in the manner that she/he conveys the communication.
- 2 Pass on all relevant information, but will neglect to check that the instruction has been properly understood.
- 1 Be unable to convey the instruction to others with any degree of precision.

APPENDIX 3

Organising Ability

Self and Time Management

If this individual was asked to complete a series of tasks to specific deadlines, I would expect her/him to:

- 5 Recognise the relative importance of individual tasks, regularly reviewing and rescheduling the workload to best effect.
- 4 Successfully schedule and action each task, but not necessarily conduct regular reviews of workload to establish current priority.
- 3 Efficiently plan and monitor the work, but might experience some difficulty in recognising and adjusting to changing priorities.
- 2 Plan the workload after obtaining the assistance of others to identify priorities and generate appropriate task lists.
- 1 Appear quite disorganised, tackling each task in compliance with others' demands or as specific tasks reach crisis point.

Organising Ability

Organising External Factors

If this individual was required to organise an off-site meeting, I would expect her/him to:

- 5 Efficiently research and complete all arrangements to time and budget, exercising a high degree of initiative in venue selection and contingency planning.
- 4 Attend to all arrangements and invitations in an efficient manner, complying as closely as possible with the original brief.
- 3 Competently complete all arrangements once advised of the various tasks involved in the project.
- 2 Satisfactorily organise the meeting if furnished with detailed instructions.
- 1 Instil a measure of doubt that all arrangements have been adequately attended to.

APPENDIX 3

Team Working

Team Interaction

If this individual was working in a department that was unexpectedly given an important yet unscheduled project, I would expect her/him to:

- 5 Demonstrate a highly developed team working mindset, actively seeking ways of supporting other members of the department.
- 4 Willingly help others once becoming aware that they require assistance.
- 3 Provide assistance to other members of the team when specifically requested to help.
- 2 Help other members only when instructed by a superior.
- 1 Be totally unaware that others might appreciate their support and assistance.

APPENDIX 4

```
//Title: BES Training Needs Analyser
//Version: 1.0
//Copyright: 1998 MJ Lovell & MJ Leat
//Programmed by: JR Chappell
//Description: Training Needs Analyser
//

package BES;

import java.awt.*;

public class BES_App {
    boolean packFrame = false;

    //Construct the application
    public BES_App() {
        MyFrame frame = new MyFrame();
        //Pack frames that have useful preferred size info, e.g. from
        their layout
        //Validate frames that have preset sizes
        if (packFrame)
            frame.pack();
        else
            frame.validate();
        //Center the window
        Dimension screenSize =
Toolkit.getDefaultToolkit().getScreenSize();
        Dimension frameSize = frame.getSize();
        if (frameSize.height > screenSize.height)
            frameSize.height = screenSize.height;
        if (frameSize.width > screenSize.width)
            frameSize.width = screenSize.width;
        frame.setLocation((screenSize.width - frameSize.width) / 2,
(screenSize.height - frameSize.height) / 2);
        frame.setVisible(true);
    }

    //Main method
    static public void main(String[] args) {
        new BES_App();
    }
}
```

APPENDIX 4

```
//Title: BES Training Needs Analyser
//Version: 1.0
//Copyright: 1998 MJ Lovell & MJ Leat
//Programmed by: JR Chappell
//Description: Training Needs Analyser
//

package BES;

import java.awt.*;
import java.awt.Font.*;
import java.awt.event.*;
import borland.jbcl.control.*;
import borland.jbcl.layout.*;
import jclass.bwt.*;
import AboutBox.*;

import Category;
import Skill;
import Analyser;

public class MyFrame extends DecoratedFrame {

    int i=0;
    int j=0;

    Analyser MyAnalyser;

    BevelPanel ButtonPanel = new BevelPanel();
    XYLayout xYLayout2 = new XYLayout();
    Button ViewButton = new Button();
    Button PrintButton = new Button();
    Button SaveButton = new Button();
    Button AboutButton = new Button();
    Button ExitButton = new Button();
    BevelPanel TopPanel = new BevelPanel();
    BevelPanel QuestionPanel = new BevelPanel();
    XYLayout xYLayout1 = new XYLayout();
    LabelControl SkillAreaLabel = new LabelControl();
    BevelPanel MidPanel = new BevelPanel();
    TextArea CategoryTextArea = new TextArea("",0,0,3);
    TextArea ScenarioTextArea = new TextArea("",0,0,3);
    TextArea SkillTextArea = new TextArea("",0,0,3);
    XYLayout xYLayout3 = new XYLayout();
    ButtonControl CategoryLeftButton = new ButtonControl();
    ButtonControl CategoryRightButton = new ButtonControl();
    ButtonControl ScenarioLeftButton = new ButtonControl();
    ButtonControl ScenarioRightButton = new ButtonControl();
    TextArea Response5 = new TextArea("",0,0,3);
    TextArea Response3 = new TextArea("",0,0,3);
    TextArea Response2 = new TextArea("",0,0,3);
    TextArea Response4 = new TextArea("",0,0,3);
    TextArea Response1 = new TextArea("",0,0,3);
    ButtonControl Button5 = new ButtonControl();
    ButtonControl Button4 = new ButtonControl();
    ButtonControl Button3 = new ButtonControl();
    ButtonControl Button2 = new ButtonControl();
    ButtonControl Button1 = new ButtonControl();
    JCSlider jCSliderDisplay = new JCSlider();
    LabelControl CategoryLabel = new LabelControl();
    LabelControl SkillLabel = new LabelControl();
    LabelControl ScenarioLabel = new LabelControl();
```

APPENDIX 4

```
XYLayout xYLayout4 = new XYLayout();
BevelPanel CatPanel = new BevelPanel();
ButtonControl ContinueButton = new ButtonControl();
LabelControl TitleLabel = new LabelControl();
LabelControl Label1 = new LabelControl();
LabelControl Label2 = new LabelControl();
LabelControl Label3 = new LabelControl();
LabelControl Label4 = new LabelControl();
LabelControl Label5 = new LabelControl();
LabelControl Label6 = new LabelControl();
BevelPanel InstructionPanel = new BevelPanel();
ButtonControl IndexButton = new ButtonControl();
TextArea InstructionTextArea = new TextArea("", 0, 0, 3);
BevelPanel ReportPane = new BevelPanel();
TextArea ReportTextArea = new TextArea("", 0, 0, 1);
ButtonControl CloseReportButton = new ButtonControl();
ImageControl imageControl1 = new ImageControl();

//Construct the frame
public MyFrame() {
    try {
        jbInit();
    }
    catch (Exception e) {
        e.printStackTrace();
    }
}

//Component initialization
public void jbInit() throws Exception{
    this.setLayout(xYLayout2);
    this.setSize(new Dimension(581, 425));
    this.setTitle("BES Training Needs Analyser");
    ButtonPanel.setBevelInner(BevelPanel.FLAT);
    xYLayout2.setHeight(412);
    xYLayout2.setWidth(576);
    ViewButton.setFont(new Font("Dialog", 1, 12));
    ViewButton.setLabel("View");
    ViewButton.addActionListener(new
MyFrame_ViewButton_actionAdapter(this));
    PrintButton.setFont(new Font("Dialog", 1, 12));
    PrintButton.setLabel("Print");
    SaveButton.setFont(new Font("Dialog", 1, 12));
    SaveButton.setLabel("Save");
    AboutButton.setFont(new Font("Dialog", 1, 12));
    AboutButton.setLabel("About");
    AboutButton.addActionListener(new
MyFrame_AboutButton_actionAdapter(this));
    ExitButton.setFont(new Font("Dialog", 1, 12));
    ExitButton.setLabel("Exit");
    ExitButton.addActionListener(new
MyFrame_ExitButton_actionAdapter(this));
    Response5.setFont(new Font("Dialog", 1, 12));
    Response5.setEditable(false);
    Response4.setFont(new Font("Dialog", 1, 12));
    Response4.setEditable(false);
    Response3.setFont(new Font("Dialog", 1, 12));
    Response3.setEditable(false);
    Response2.setFont(new Font("Dialog", 1, 12));
    Response2.setEditable(false);
    Response1.setFont(new Font("Dialog", 1, 12));
    Response1.setEditable(false);
    QuestionPanel.setLayout(xYLayout3);
```

APPENDIX 4

```
SkillAreaLabel.setAlignment(Label.CENTER);
SkillAreaLabel.setFont(new Font("Dialog", 1, 14));
SkillAreaLabel.setText("Skill Area");
MidPanel.setBevelInner(BevelPanel.FLAT);
TopPanel.setBevelInner(BevelPanel.FLAT);
QuestionPanel.setBevelInner(BevelPanel.FLAT);
CategoryTextArea.setEditable(false);
ScenarioTextArea.setFont(new Font("Dialog", 1, 12));
ScenarioTextArea.setEditable(false);
SkillTextArea.setFont(new Font("Dialog", 1, 18));
SkillTextArea.setEditable(false);
CategoryLeftButton.setForeground(Color.red);
CategoryLeftButton.setImageFirst(false);

CategoryLeftButton.setImageName("C:\\JBuilder\\myprojects\\BES\\images\\left.gif");
CategoryLeftButton.setFont(new Font("Dialog", 1, 18));
CategoryLeftButton.setLabel("");
CategoryLeftButton.addActionListener(new
MyFrame_CategoryLeftButton_actionAdapter(this));
CategoryRightButton.setForeground(Color.red);
CategoryRightButton.setImageFirst(false);

CategoryRightButton.setImageName("C:\\JBuilder\\myprojects\\BES\\images\\right.gif");
CategoryRightButton.setFont(new Font("Dialog", 1, 18));
CategoryRightButton.setLabel("");
CategoryRightButton.addActionListener(new
MyFrame_CategoryRightButton_actionAdapter(this));
ScenarioLeftButton.setForeground(Color.red);

ScenarioLeftButton.setImageName("C:\\JBuilder\\myprojects\\BES\\images\\left.gif");
ScenarioLeftButton.setImageFirst(false);
ScenarioLeftButton.setFont(new Font("Dialog", 1, 18));
ScenarioLeftButton.setLabel("");
ScenarioLeftButton.addActionListener(new
MyFrame_ScenarioLeftButton_actionAdapter(this));
ScenarioRightButton.setForeground(Color.red);
ScenarioRightButton.setImageFirst(false);

ScenarioRightButton.setImageName("C:\\JBuilder\\myprojects\\BES\\images\\right.gif");
ScenarioRightButton.setFont(new Font("Dialog", 1, 18));
ScenarioRightButton.setLabel("");
ScenarioRightButton.addActionListener(new
MyFrame_ScenarioRightButton_actionAdapter(this));
Button5.setForeground(Color.blue);
Button5.setFont(new Font("Dialog", 1, 18));
Button5.setLabel("5");
Button5.addActionListener(new
MyFrame_Button5_actionAdapter(this));
Button4.setFont(new Font("Dialog", 1, 18));
Button4.setForeground(Color.blue);
Button4.setLabel("4");
Button4.addActionListener(new
MyFrame_Button4_actionAdapter(this));
Button3.setForeground(Color.blue);
Button3.setFont(new Font("Dialog", 1, 18));
Button3.setLabel("3");
Button3.addActionListener(new
MyFrame_Button3_actionAdapter(this));
Button2.setFont(new Font("Dialog", 1, 18));
```

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```

        Button2.setForeground(Color.blue);
        Button2.setLabel("2");
        Button2.addActionListener(new
MyFrame_Button2_actionAdapter(this));
        Button1.setForeground(Color.blue);
        Button1.setFont(new Font("Dialog", 1, 18));
        Button1.setLabel("1");
        Button1.addActionListener(new
MyFrame_Button1_actionAdapter(this));
        jCSliderDisplay.setForeground(Color.blue);
        jCSliderDisplay.setBlockIncrement(1);
        jCSliderDisplay.setMaximum(5);
        jCSliderDisplay.setOrientation(jclass.bwt.BWTEnum.VERTICAL);
        jCSliderDisplay.setUnitIncrement(5);
        jCSliderDisplay.setValue(5);
        SkillLabel.setFont(new Font("Dialog", 1, 14));
        SkillLabel.setText("Skill Area");
        ScenarioLabel.setFont(new Font("Dialog", 1, 14));
        ScenarioLabel.setText("Scenario");
        CatPanel.setBevelInner(BevelPanel.FLAT);
        ContinueButton.setFont(new Font("Dialog", 1, 12));
        ContinueButton.setLabel("Continue");
        TitleLabel.setAlignment(Label.CENTER);
        TitleLabel.setFont(new Font("Dialog", 1, 22));
        TitleLabel.setText("BES Index of Categories");
        Label1.setFont(new Font("Dialog", 1, 16));
        Label1.setText("1. Assertiveness");
        Label2.setFont(new Font("Dialog", 1, 16));
        Label2.setText("2. Business Awareness");
        Label3.setFont(new Font("Dialog", 1, 16));
        Label3.setText("3. Information Technology");
        Label4.setFont(new Font("Dialog", 1, 16));
        Label4.setText("4. Interpersonal Skills");
        Label5.setFont(new Font("Dialog", 1, 16));
        Label5.setText("5. Organising Ability");
        Label6.setFont(new Font("Dialog", 1, 16));
        Label6.setText("6. Team Working");
        InstructionPanel.setBevelInner(BevelPanel.FLAT);
        IndexButton.setFont(new Font("Dialog", 1, 12));
        IndexButton.setLabel("Index of Catagories");
        InstructionTextArea.setFont(new Font("Dialog", 1, 14));

```

```
// string manipulation
```

```

String myString1 = "BES Training Needs Analyser for
Administrative Personnel\n\nPLEASE READ CAREFULLY BEFORE COMMENCING
THE PROGRAM\n\nThe purpose of this diagnostic instrument is to assist
you in making the most appropriate training and developmental choices
for your administrative staff and your organisation.\nUtilising a
type of behavioural expectation scale it will help you to focus on
their present knowledge, abilities and learning objectives and where
necessary propose suitable training initiatives.\n\nThe program
covers a range of competencies which are illustrated by a number of
work-related scenarios. As each new dialogue box emerges, please
read the five performance descriptions for each scenario from bottom
(1) to top (5) and select the one button that most closely matches
your belief regarding the individual\'s anticipated performance.
This selection will then pass to a diagnostic database.";

```

```

String myString2 = "\n\nAfter you have worked through the BES
program a training needs analysis will be automatically generated
advising you of any skill areas that you might beneficially monitor
or address.";

```

```
String InstructionString = myString1+myString2;
```

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```
InstructionTextArea.setText(InstructionString);

InstructionTextArea.setEditable(false);
ReportPane.setBevelInner(BevelPanel.FLAT);
ReportTextArea.setFont(new Font("TimesRoman", 1, 14));
CloseReportButton.setFont(new Font("Dialog", 1, 12));
CloseReportButton.setLabel("Done");

imageControll1.setImageName("C:\\JBuilder\\myprojects\\BES\\images\\Britannia.gif");
CloseReportButton.addActionListener(new
MyFrame_CloseReportButton_actionAdapter(this));
IndexButton.addActionListener(new
MyFrame_IndexButton_actionAdapter(this));
ContinueButton.addActionListener(new
MyFrame_ContinueButton_actionAdapter(this));
CategoryLabel.setFont(new Font("Dialog", 1, 14));
CategoryLabel.setText("Category");
TopPanel.setLayout(xYLayout1);
ButtonPanel.setLayout(xYLayout4);
this.add(InstructionPanel, new XYConstraints(1, 1, 569, 387));
InstructionPanel.add(IndexButton, new XYConstraints(218, 359,
134, -1));
InstructionPanel.add(InstructionTextArea, new XYConstraints(8, 7,
554, 343));
this.add(CatPanel, new XYConstraints(-1, 0, 572, 384));
CatPanel.add(ContinueButton, new XYConstraints(240, 343, 88, -
1));
CatPanel.add(TitleLabel, new XYConstraints(0, 18, 567, 40));
CatPanel.add(Label1, new XYConstraints(203, 74, 250, -1));
CatPanel.add(Label2, new XYConstraints(203, 118, 218, -1));
CatPanel.add(Label3, new XYConstraints(203, 163, 216, -1));
CatPanel.add(Label4, new XYConstraints(203, 207, 184, -1));
CatPanel.add(Label5, new XYConstraints(203, 252, 208, -1));
CatPanel.add(Label6, new XYConstraints(202, 296, 199, -1));
CatPanel.add(imageControll1, new XYConstraints(10, 329, 156, 46));
this.add(ReportPane, new XYConstraints(1, 1, 568, 385));
ReportPane.add(ReportTextArea, new XYConstraints(6, 6, 557,
344));
ReportPane.add(CloseReportButton, new XYConstraints(241, 359, 92,
-1));
this.add(ButtonPanel, new XYConstraints(-2, 351, 572, 29));
ButtonPanel.add(ViewButton, new XYConstraints(172, 5, 47, -1));
ButtonPanel.add(PrintButton, new XYConstraints(220, 5, 47, -1));
ButtonPanel.add(SaveButton, new XYConstraints(268, 5, 47, -1));
ButtonPanel.add(AboutButton, new XYConstraints(316, 5, -1, -1));
ButtonPanel.add(ExitButton, new XYConstraints(364, 5, 47, -1));
this.add(TopPanel, new XYConstraints(-2, 7, 576, -1));
TopPanel.add(QuestionPanel, new XYConstraints(77, 0, -1, 112));
QuestionPanel.add(CategoryTextArea, new XYConstraints(38, 2, 419,
26));
QuestionPanel.add(SkillTextArea, new XYConstraints(38, 37, 419,
26));
QuestionPanel.add(ScenarioTextArea, new XYConstraints(3, 68, 490,
40));
QuestionPanel.add(CategoryLeftButton, new XYConstraints(2, 1, 33,
32));
QuestionPanel.add(CategoryRightButton, new XYConstraints(459, 1,
33, 32));
QuestionPanel.add(ScenarioLeftButton, new XYConstraints(2, 34,
33, 32));
QuestionPanel.add(ScenarioRightButton, new XYConstraints(459, 33,
33, 32));
```


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```

TopPanel.add(CategoryLabel, new XYConstraints(3, 8, 73, 21));
TopPanel.add(SkillLabel, new XYConstraints(3, 43, 70, 20));
TopPanel.add(ScenarioLabel, new XYConstraints(3, 76, 62, 19));
this.add(MidPanel, new XYConstraints(1, 115, 572, 240));
MidPanel.add(Response3, new XYConstraints(86, 103, 479, 38));
MidPanel.add(Response2, new XYConstraints(86, 149, 479, 38));
MidPanel.add(Response4, new XYConstraints(86, 57, 479, 38));
MidPanel.add(Response1, new XYConstraints(86, 195, 479, 38));
MidPanel.add(Response5, new XYConstraints(86, 11, 479, 38));
MidPanel.add(Button5, new XYConstraints(41, 11, 40, 38));
MidPanel.add(Button4, new XYConstraints(41, 57, 40, 38));
MidPanel.add(Button3, new XYConstraints(41, 103, 40, 38));
MidPanel.add(Button2, new XYConstraints(41, 149, 40, 38));
MidPanel.add(Button1, new XYConstraints(41, 195, 40, 38));
MidPanel.add(jCSliderDisplay, new XYConstraints(7, 23, 41, 243));
this.add(SkillAreaLabel, new XYConstraints(2, 75, 65, -1));

MyAnalyser = new Analyser();

CategoryTextArea.setFont(new Font("Dialog", 1, 18));

// consider as "in-line" function (method?!)
CategoryTextArea.setText(MyAnalyser.getCategoryText(i));
SkillTextArea.setText(MyAnalyser.getSkillText(i,j));
ScenarioTextArea.setText(MyAnalyser.getScenarioText(i,j));
Response5.setText(MyAnalyser.getResponse(i,j,5));
Response4.setText(MyAnalyser.getResponse(i,j,4));
Response3.setText(MyAnalyser.getResponse(i,j,3));
Response2.setText(MyAnalyser.getResponse(i,j,2));
Response1.setText(MyAnalyser.getResponse(i,j,1));

}

void fieldControll1_actionPerformed(ActionEvent e) {

}

void CategoryLeftButton_actionPerformed(ActionEvent e) {
    if(i>0) { i--; j=0; }
// consider as "in-line" function (method?!)
CategoryTextArea.setText(MyAnalyser.getCategoryText(i));
SkillTextArea.setText(MyAnalyser.getSkillText(i,j));
ScenarioTextArea.setText(MyAnalyser.getScenarioText(i,j));
Response5.setText(MyAnalyser.getResponse(i,j,5));
Response4.setText(MyAnalyser.getResponse(i,j,4));
Response3.setText(MyAnalyser.getResponse(i,j,3));
Response2.setText(MyAnalyser.getResponse(i,j,2));
Response1.setText(MyAnalyser.getResponse(i,j,1));

    jCSliderDisplay.setValue(5-
MyAnalyser.getSkillObj(i,j).getResponse());
}

void AboutButton_mouseClicked(MouseEvent e) {

}

void AboutButton_actionPerformed(ActionEvent e) {
    Frame AboutFrame = new Frame();
    AboutBox MyAboutBox = new AboutBox(AboutFrame,"About...",true);
    Dimension screenSize =
Toolkit.getDefaultToolkit().getScreenSize();
    Dimension frameSize = MyAboutBox.getSize();

```

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```
MyAboutBox.setLocation((screenSize.width - frameSize.width) / 2,
(screenSize.height - frameSize.height) / 2);
MyAboutBox.show();
}

void ExitButton_actionPerformed(ActionEvent e) {
    dispose ();
}

void ContinueButton_actionPerformed(ActionEvent e) {
    CatPanel.setVisible(false);
}

void IndexButton_actionPerformed(ActionEvent e) {
    InstructionPanel.setVisible(false);
    ReportPane.setVisible(false);
}

void CategoryRightButton_actionPerformed(ActionEvent e) {
    if(MyAnalyser.getCategoryText(i+1)!=null) { i++; j=0; }
// consider as "in-line" function (method?!)
    CategoryTextArea.setText(MyAnalyser.getCategoryText(i));
    SkillTextArea.setText(MyAnalyser.getSkillText(i,j));
    ScenarioTextArea.setText(MyAnalyser.getScenarioText(i,j));
    Response5.setText(MyAnalyser.getResponse(i,j,5));
    Response4.setText(MyAnalyser.getResponse(i,j,4));
    Response3.setText(MyAnalyser.getResponse(i,j,3));
    Response2.setText(MyAnalyser.getResponse(i,j,2));
    Response1.setText(MyAnalyser.getResponse(i,j,1));

    jCSliderDisplay.setValue(5-
MyAnalyser.getSkillObj(i,j).getResponse());
}

void ScenarioLeftButton_actionPerformed(ActionEvent e) {
    if(j>0) { j--; }
// consider as "in-line" function (method?!)
    CategoryTextArea.setText(MyAnalyser.getCategoryText(i));
    SkillTextArea.setText(MyAnalyser.getSkillText(i,j));
    ScenarioTextArea.setText(MyAnalyser.getScenarioText(i,j));
    Response5.setText(MyAnalyser.getResponse(i,j,5));
    Response4.setText(MyAnalyser.getResponse(i,j,4));
    Response3.setText(MyAnalyser.getResponse(i,j,3));
    Response2.setText(MyAnalyser.getResponse(i,j,2));
    Response1.setText(MyAnalyser.getResponse(i,j,1));

    jCSliderDisplay.setValue(5-
MyAnalyser.getSkillObj(i,j).getResponse());
}

void ScenarioRightButton_actionPerformed(ActionEvent e) {
    if(MyAnalyser.getSkillText(i,j+1)!=null) { j++; }
// consider as "in-line" function (method?!)
    CategoryTextArea.setText(MyAnalyser.getCategoryText(i));
    SkillTextArea.setText(MyAnalyser.getSkillText(i,j));
    ScenarioTextArea.setText(MyAnalyser.getScenarioText(i,j));
    Response5.setText(MyAnalyser.getResponse(i,j,5));
    Response4.setText(MyAnalyser.getResponse(i,j,4));
    Response3.setText(MyAnalyser.getResponse(i,j,3));
    Response2.setText(MyAnalyser.getResponse(i,j,2));
    Response1.setText(MyAnalyser.getResponse(i,j,1));
}
```

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```

        jCSliderDisplay.setValue(5-
MyAnalyser.getSkillObj(i,j).getResponse());
    }

    void Button1_actionPerformed(ActionEvent e) {
        MyAnalyser.getSkillObj(i,j).setResponse(1);
        jCSliderDisplay.setValue(5-1);

        if(MyAnalyser.getSkillText(i,j+1)!=null) {
            j++;
        }
        else
        {
            if(MyAnalyser.getCategoryText(i+1)!=null) { i++; j=0; }
        }
// consider as "in-line" function (method?!)
        CategoryTextArea.setText(MyAnalyser.getCategoryText(i));
        SkillTextArea.setText(MyAnalyser.getSkillText(i,j));
        ScenarioTextArea.setText(MyAnalyser.getScenarioText(i,j));
        Response5.setText(MyAnalyser.getResponse(i,j,5));
        Response4.setText(MyAnalyser.getResponse(i,j,4));
        Response3.setText(MyAnalyser.getResponse(i,j,3));
        Response2.setText(MyAnalyser.getResponse(i,j,2));
        Response1.setText(MyAnalyser.getResponse(i,j,1));
        jCSliderDisplay.setValue(5-
MyAnalyser.getSkillObj(i,j).getResponse());
    }

    void Button2_actionPerformed(ActionEvent e) {
        MyAnalyser.getSkillObj(i,j).setResponse(2);
        jCSliderDisplay.setValue(5-2);

        if(MyAnalyser.getSkillText(i,j+1)!=null) {
            j++;
        }
        else
        {
            if(MyAnalyser.getCategoryText(i+1)!=null) { i++; j=0; }
        }
// consider as "in-line" function (method?!)
        CategoryTextArea.setText(MyAnalyser.getCategoryText(i));
        SkillTextArea.setText(MyAnalyser.getSkillText(i,j));
        ScenarioTextArea.setText(MyAnalyser.getScenarioText(i,j));
        Response5.setText(MyAnalyser.getResponse(i,j,5));
        Response4.setText(MyAnalyser.getResponse(i,j,4));
        Response3.setText(MyAnalyser.getResponse(i,j,3));
        Response2.setText(MyAnalyser.getResponse(i,j,2));
        Response1.setText(MyAnalyser.getResponse(i,j,1));
        jCSliderDisplay.setValue(5-
MyAnalyser.getSkillObj(i,j).getResponse());
    }

    void Button3_actionPerformed(ActionEvent e) {
        MyAnalyser.getSkillObj(i,j).setResponse(3);
        jCSliderDisplay.setValue(5-3);

        if(MyAnalyser.getSkillText(i,j+1)!=null) {
            j++;
        }
        else
        {
            if(MyAnalyser.getCategoryText(i+1)!=null) { i++; j=0; }
        }
    }

```

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```
// consider as "in-line" function (method?!)
CategoryTextArea.setText(MyAnalyser.getCategoryText(i));
SkillTextArea.setText(MyAnalyser.getSkillText(i,j));
ScenarioTextArea.setText(MyAnalyser.getScenarioText(i,j));
Response5.setText(MyAnalyser.getResponse(i,j,5));
Response4.setText(MyAnalyser.getResponse(i,j,4));
Response3.setText(MyAnalyser.getResponse(i,j,3));
Response2.setText(MyAnalyser.getResponse(i,j,2));
Response1.setText(MyAnalyser.getResponse(i,j,1));
jCSliderDisplay.setValue(5-
MyAnalyser.getSkillObj(i,j).getResponse());

}

void Button4_actionPerformed(ActionEvent e) {
    MyAnalyser.getSkillObj(i,j).setResponse(4);
    jCSliderDisplay.setValue(5-4);

    if(MyAnalyser.getSkillText(i,j+1)!=null) {
        j++;
    }
    else
    {
        if(MyAnalyser.getCategoryText(i+1)!=null) { i++; j=0; }
    }
}

// consider as "in-line" function (method?!)
CategoryTextArea.setText(MyAnalyser.getCategoryText(i));
SkillTextArea.setText(MyAnalyser.getSkillText(i,j));
ScenarioTextArea.setText(MyAnalyser.getScenarioText(i,j));
Response5.setText(MyAnalyser.getResponse(i,j,5));
Response4.setText(MyAnalyser.getResponse(i,j,4));
Response3.setText(MyAnalyser.getResponse(i,j,3));
Response2.setText(MyAnalyser.getResponse(i,j,2));
Response1.setText(MyAnalyser.getResponse(i,j,1));
jCSliderDisplay.setValue(5-
MyAnalyser.getSkillObj(i,j).getResponse());
}

void Button5_actionPerformed(ActionEvent e) {
    MyAnalyser.getSkillObj(i,j).setResponse(5);
    jCSliderDisplay.setValue(5-5);

    if(MyAnalyser.getSkillText(i,j+1)!=null) {
        j++;
    }
    else
    {
        if(MyAnalyser.getCategoryText(i+1)!=null) { i++; j=0; }
    }
}

// consider as "in-line" function (method?!)
CategoryTextArea.setText(MyAnalyser.getCategoryText(i));
SkillTextArea.setText(MyAnalyser.getSkillText(i,j));
ScenarioTextArea.setText(MyAnalyser.getScenarioText(i,j));
Response5.setText(MyAnalyser.getResponse(i,j,5));
Response4.setText(MyAnalyser.getResponse(i,j,4));
Response3.setText(MyAnalyser.getResponse(i,j,3));
Response2.setText(MyAnalyser.getResponse(i,j,2));
Response1.setText(MyAnalyser.getResponse(i,j,1));
jCSliderDisplay.setValue(5-
MyAnalyser.getSkillObj(i,j).getResponse());
}

void ViewButton_actionPerformed(ActionEvent e) {
```

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```
ReportTextArea.setText(MyAnalyser.createReport());
ReportPane.setVisible(true);

// String testString=(MyAnalyser.createReport());
int kk=0;
}

void CloseReportButton_actionPerformed(ActionEvent e) {
    ReportPane.setVisible(false);
}
}

class MyFrame_InsetsPanel extends Panel {
    protected Insets insets;

    public Insets getInsets() {
        return insets == null ? super.getInsets() : insets;
    }

    public void setInsets(Insets insets) {
        this.insets = insets;
    }
}

class MyFrame_CategoryLeftButton_actionAdapter implements
java.awt.event.ActionListener{
    MyFrame adaptee;

    MyFrame_CategoryLeftButton_actionAdapter(MyFrame adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.CategoryLeftButton_actionPerformed(e);
    }
}

class MyFrame_AboutButton_actionAdapter implements
java.awt.event.ActionListener{
    MyFrame adaptee;

    MyFrame_AboutButton_actionAdapter(MyFrame adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.AboutButton_actionPerformed(e);
    }
}

class MyFrame_ExitButton_actionAdapter implements
java.awt.event.ActionListener {
    MyFrame adaptee;

    MyFrame_ExitButton_actionAdapter(MyFrame adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.ExitButton_actionPerformed(e);
    }
}
```

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```
class MyFrame_ContinueButton_actionAdapter implements
java.awt.event.ActionListener{
    MyFrame adaptee;

    MyFrame_ContinueButton_actionAdapter(MyFrame adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.ContinueButton_actionPerformed(e);
    }
}

class MyFrame_IndexButton_actionAdapter implements
java.awt.event.ActionListener{
    MyFrame adaptee;

    MyFrame_IndexButton_actionAdapter(MyFrame adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.IndexButton_actionPerformed(e);
    }
}

class MyFrame_CategoryRightButton_actionAdapter implements
java.awt.event.ActionListener {
    MyFrame adaptee;

    MyFrame_CategoryRightButton_actionAdapter(MyFrame adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.CategoryRightButton_actionPerformed(e);
    }
}

class MyFrame_ScenarioLeftButton_actionAdapter implements
java.awt.event.ActionListener {
    MyFrame adaptee;

    MyFrame_ScenarioLeftButton_actionAdapter(MyFrame adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.ScenarioLeftButton_actionPerformed(e);
    }
}

class MyFrame_ScenarioRightButton_actionAdapter implements
java.awt.event.ActionListener {
    MyFrame adaptee;

    MyFrame_ScenarioRightButton_actionAdapter(MyFrame adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.ScenarioRightButton_actionPerformed(e);
    }
}
```

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```
    }  
}  
  
class MyFrame_Button1_actionAdapter implements  
java.awt.event.ActionListener {  
    MyFrame adaptee;  
  
    MyFrame_Button1_actionAdapter(MyFrame adaptee) {  
        this.adaptee = adaptee;  
    }  
  
    public void actionPerformed(ActionEvent e) {  
        adaptee.Button1_actionPerformed(e);  
    }  
}  
  
class MyFrame_Button2_actionAdapter implements  
java.awt.event.ActionListener {  
    MyFrame adaptee;  
  
    MyFrame_Button2_actionAdapter(MyFrame adaptee) {  
        this.adaptee = adaptee;  
    }  
  
    public void actionPerformed(ActionEvent e) {  
        adaptee.Button2_actionPerformed(e);  
    }  
}  
  
class MyFrame_Button3_actionAdapter implements  
java.awt.event.ActionListener {  
    MyFrame adaptee;  
  
    MyFrame_Button3_actionAdapter(MyFrame adaptee) {  
        this.adaptee = adaptee;  
    }  
  
    public void actionPerformed(ActionEvent e) {  
        adaptee.Button3_actionPerformed(e);  
    }  
}  
  
class MyFrame_Button4_actionAdapter implements  
java.awt.event.ActionListener {  
    MyFrame adaptee;  
  
    MyFrame_Button4_actionAdapter(MyFrame adaptee) {  
        this.adaptee = adaptee;  
    }  
  
    public void actionPerformed(ActionEvent e) {  
        adaptee.Button4_actionPerformed(e);  
    }  
}  
  
class MyFrame_Button5_actionAdapter implements  
java.awt.event.ActionListener {  
    MyFrame adaptee;  
  
    MyFrame_Button5_actionAdapter(MyFrame adaptee) {  
        this.adaptee = adaptee;  
    }  
}
```

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```
    public void actionPerformed(ActionEvent e) {
        adaptee.Button5_actionPerformed(e);
    }
}

class MyFrame_ViewButton_actionAdapter implements
java.awt.event.ActionListener{
    MyFrame adaptee;

    MyFrame_ViewButton_actionAdapter(MyFrame adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.ViewButton_actionPerformed(e);
    }
}

class MyFrame_CloseReportButton_actionAdapter implements
java.awt.event.ActionListener {
    MyFrame adaptee;

    MyFrame_CloseReportButton_actionAdapter(MyFrame adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.CloseReportButton_actionPerformed(e);
    }
}
```


APPENDIX 4

```
// This snippet creates a new about box.
```

```
//Title: BES Training Needs Analyser
//Version: 1.0
//Copyright: 1998 MJ Lovell & MJ Leat
//Programmed by: JR Chappell
//Description: Training Needs Analyser
//
```

```
package BES;
```

```
import java.awt.*;
import java.awt.event.*;
import borland.jbcl.layout.*;
import borland.jbcl.control.*;
```

```
public class AboutBox extends Dialog {
    Panel panell = new Panel();
    XYLayout xYLayout1 = new XYLayout();
    ImageControl imageControl1 = new ImageControl();
    Label label1 = new Label();
    Label label2 = new Label();
    Label label3 = new Label();
    Label label4 = new Label();
    Button button1 = new Button();

    public AboutBox(Frame frame, String title, boolean modal) {
        super(frame, title, modal);
        try {
            jbInit();
        }
        catch (Exception e) {
            e.printStackTrace();
        }
        add(panell);
        pack();
    }

    public AboutBox(Frame frame, String title) {
        this(frame, title, false);
    }

    public AboutBox(Frame frame) {
        this(frame, "", false);
    }

    public void jbInit() throws Exception {
        xYLayout1.setWidth(374);
        xYLayout1.setHeight(192);
        imageControl1.setAlignment(borland.jbcl.util.Alignment.CENTER |
borland.jbcl.util.Alignment.MIDDLE);

        imageControl1.setImageName("C:\\JBuilder\\myprojects\\BES\\images\\Jl
ogo.gif");
        imageControl1.addActionListener(new
AboutBox_imageControl1_actionAdapter(this));
        label1.setText("BES Training Needs Analyser");
        label2.setText("Version 1.0");
        label3.setText("Copyright 1998 MJ Lovell & MJ Leat");
        label4.setText("Programmed by JR Chappell");
        button1.setActionCommand("");
        button1.setLabel("OK");
    }
}
```

APPENDIX 4

```
        button1.addActionListener(new
AboutBox_button1_actionAdapter(this));
        this.addWindowListener(new AboutBox_this_windowAdapter(this));
        panell1.setLayout(xYLayout1);
        panell1.add(imageControll1, new XYConstraints(12, 14, 98, 138));
        panell1.add(label11, new XYConstraints(121, 16, 174, 21));
        panell1.add(label2, new XYConstraints(121, 45, 118, 21));
        panell1.add(label3, new XYConstraints(121, 73, 204, 21));
        panell1.add(label4, new XYConstraints(121, 103, 210, 24));
        panell1.add(button1, new XYConstraints(137, 144, 98, 32));
    }

    //Close the dialog
    void button1_actionPerformed(ActionEvent e) {
        dispose();
    }

    void this_windowClosing(WindowEvent e) {
        dispose();
    }

    void imageControll1_actionPerformed(ActionEvent e) {

    }
}

class AboutBox_button1_actionAdapter implements ActionListener {
    AboutBox adaptee;

    AboutBox_button1_actionAdapter(AboutBox adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.button1_actionPerformed(e);
    }
}

class AboutBox_this_windowAdapter extends WindowAdapter {
    AboutBox adaptee;

    AboutBox_this_windowAdapter(AboutBox adaptee) {
        this.adaptee = adaptee;
    }

    public void windowClosing(WindowEvent e) {
        adaptee.this_windowClosing(e);
    }
}

class AboutBox_imageControll1_actionAdapter implements
java.awt.event.ActionListener{
    AboutBox adaptee;

    AboutBox_imageControll1_actionAdapter(AboutBox adaptee) {
        this.adaptee = adaptee;
    }

    public void actionPerformed(ActionEvent e) {
        adaptee.imageControll1_actionPerformed(e);
    }
}
```


APPENDIX 4

```
//Title: BES Training Needs Analyser
//Version: 1.0
//Copyright: 1998 MJ Lovell & MJ Leat
//Programmed by: JR Chappell
//Description: Training Needs Analyser
//

package BES;

public class Skill {

    // Instance Variables

    public String SkillArea;      // The Text that appears in the Skill
Area Box
    public String ScenarioText;   // " in the Scenario Box
    public boolean Responded;     // Did the user fill this in?
    public int Response;          // What the user "scored"
    public String Response5;      // The behavioural expectation 5
    public String Response4;      // " 4
    public String Response3;      // ..
    public String Response2;      // ..
    public String Response1;      // " 1

    // End of Instance Variables

    // Class Constructor

    public Skill(String SkillText,String ScenText,String R5,String
R4,String R3,String R2,String R1) {
        this.Responded=false;
        this.Response=0;
        this.SkillArea=SkillText;
        this.ScenarioText=ScenText;
        this.Response5=R5;
        this.Response4=R4;
        this.Response3=R3;
        this.Response2=R2;
        this.Response1=R1;
    }

    public String getScenarioText() {
        return this.ScenarioText;
    }

    public int getResponse() {
        return this.Response;
    }

    public boolean valid() {
        return Responded;
    }

    public void setResponse(int Rep) {
        this.Responded=true;
        this.Response=Rep;
    }

    public String getResponseText(int RespNo) {
        switch(RespNo) {
            case 1:
                return this.Response1;
        }
    }
}
```

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```
        case 2:
            return this.Response2;
        case 3:
            return this.Response3;
        case 4:
            return this.Response4;
        case 5:
            return this.Response5;
        default:
            return "";
    }
}

public String getSkillArea () {
    return this.SkillArea;
}

}

//Title: BES Training Needs Analyser
//Version: 1.0
//Copyright: 1998 MJ Lovell & MJ Leat
//Programmed by: JR Chappell
//Description: Training Needs Analyser
//

package BES;

import Skill;
import java.util.Vector;

public class Category {

    // Instance Variables

    public String CategoryText;
    public Vector SkillVector;

    // End of Instance Variables

    // Class Constructor

    public Category(String CatText) {
        this.SkillVector=new Vector(1,1);
        this.CategoryText=CatText;
    }

    public String getCategoryText() {
        return this.CategoryText;
    }

    public void addSkill(Skill newSkill) {
        this.SkillVector.addElement(newSkill);
    }

    public Skill getSkill(int Skillnum) {
        if (Skillnum<this.SkillVector.size()) {
            return (Skill)this.SkillVector.elementAt(Skillnum);
        }
    }
}
```

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```
        else {
            return null;
        }
    }

    public boolean hasResponses() {
        boolean hasResponses=false;
        for(int i=0;i<SkillVector.size();i++) {
            if(((Skill)SkillVector.elementAt(i)).valid()) {
                hasResponses=true;
            }
        }
        return hasResponses;
    }
}
```

APPENDIX 4

```
//Title: BES Training Needs Analyser
//Version: 1.0
//Copyright: 1998 MJ Lovell & MJ Leat
//Programmed by: JR Chappell
//Description: Training Needs Analyser
//

package BES;

import Category;
import Skill;
import MyFrame;
import AnalyserMap;

import java.util.Vector;
import java.lang.Integer;
import java.util.Date;

public class Analyser {

    // Instance Variables

    public Vector CategoryVector;

    // End of Instance Variables

    // Class Constructor

    public Analyser() {
        // Working Storage
        Category newCategory;
        Skill newSkill;
        // end of Working Storage
        this.CategoryVector=new Vector(1,1);

        // Set up Categories

        // Set Category
        newCategory=new Category("Assertiveness");

        // Set Skill

        newSkill=new Skill(
            "Communications",
            "If this individual was a participant in a situation
such as a meeting where other participants were extremely vociferous,
I would expect her/him to:",
            "Confidently yet firmly express her/his viewpoint,
remaining calm yet controlled in the face of opposition",
            "Express own opinion, but frequently become dissuaded
from own point of view by the arguments of others.",
            "Remain quiet and reserved, giving opinions only when
specifically sought by others.",
            "Express ideas with clarity, but tending to be
defensive and argumentative when challenged on own ideas.",
            "Become loud and overbearing when expressing personal
viewpoints, particularly when the opinions of others differ from
own.");
        // Add Skill to Category
        newCategory.addSkill(newSkill);

        // Set Skill
```

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```
newSkill=new Skill(  
    "Delegating",  
    "If this individual had the need to delegate to a  
subordinate who was frequently garrulous and uncooperative, I would  
expect her/him to:",  
    "Delegate confidently to the subordinate, ensuring  
that task objectives are concise with measures and responsibilities  
well defined.",  
    "Give clear task objectives yet frequently intervene,  
thereby only partially delegating the task.",  
    "Delegate the task in an ineffectual manner,  
necessitating her/him having to personally complete the task.",  
    "Present all relevant information but abdicate  
responsibility, leaving the success or failure of the task entirely  
with the subordinate.",  
    "Make task details extremely specific to the point  
that little or no responsibility is conferred on the subordinate.");  
// Add Skill to Category  
newCategory.addSkill(newSkill);  
  
// Set Skill  
  
newSkill=new Skill(  
    "Human Relationships",  
    "If this individual was experiencing conflict with a  
departmental colleague, I would expect her/him to:",  
    "Confidently and calmly approach the colleague in  
private and attempt to determine and address the issues between  
them.",  
    "Seek advice from manager how to best deal with the  
situation.",  
    "Stoically internalise any ill-feeling from the  
colleague, believing the conflict to be the other's problem.",  
    "Put a civil countenance on face-to-face encounters,  
but seek every opportunity to run down the colleague with others.",  
    "Become heated, agitated and uncooperative in any  
dealings with the colleague.");  
// Add Skill to Category  
newCategory.addSkill(newSkill);  
  
// Set Skill  
  
newSkill=new Skill(  
    "Task Effectiveness",  
    "If this individual was given a task which she/he  
might not complete because of her/his current workload, I would  
expect her/him to:",  
    "Politely explain the time constraint and seek advice  
as to whether the new task should take priority over other scheduled  
work.",  
    "Agree to perform the task but only after pointing  
out that other work might suffer as a consequence.",  
    "Readily accept the task without comment and work  
towards its completion knowing that it might nevertheless be  
unachievable.",  
    "Eventually accept the task after being talked around  
with a measure of coercion or cajoling.",  
    "Resolutely refuse to undertake the task on the basis  
that she/he is too busy with other work.");  
// Add Skill to Category  
newCategory.addSkill(newSkill);
```


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```
// Add Category to CategoryVector
    this.CategoryVector.addElement(newCategory);

// Set Category
    newCategory=new Category("Business Awareness");

// Set Skill

    newSkill=new Skill(
        "Analytical Methods",
        "If this individual was asked to assist in the
justification of equipment requiring significant capital expenditure,
I would expect her/him to:",
        "Undertake a comprehensive cost benefit analysis,
showing short, medium and long-term projections within the context of
the total business.",
        "Competently produce a cost benefit analysis without
necessarily appreciating the acquisition's wider contribution to
overall business success.",
        "Thoroughly research the purchase, compiling
essential data that will enable others to develop an appropriate
justification.",
        "Capably research and compile data for a cost benefit
analysis if provided with adequate guidance.",
        "Be unable to determine which data might be important
for the justification and be oblivious to the wider implications of
the purchase.");
// Add Skill to Category
    newCategory.addSkill(newSkill);

// Set Skill

    newSkill=new Skill(
        "Business Appreciation",
        "If this individual was informed that a particular
delay would have a significantly adverse effect on the profitability
of a service, I would expect her/him to:",
        "Fully appreciate the implications of the delay on
revenue, direct labour, overhead costs and corporate reputation.",
        "Be aware of some of the more obvious effects on
income and demonstrate a passing knowledge of cost influences.",
        "Show a superficial grasp of the wider business
implications yet fully appreciate the seriousness of the situation.",
        "Demonstrate minimal understanding of cost/revenue
effects but be very aware of the delay's effect on own departmental
responsibilities.",
        "Be quite oblivious to the real effects of the
delay.");
// Add Skill to Category
    newCategory.addSkill(newSkill);

// Add Category to CategoryVector
    this.CategoryVector.addElement(newCategory);

// Set Category
    newCategory=new Category("Information Technology");

// Set Skill

    newSkill=new Skill(
        "Computer Literacy",
```

APPENDIX 4

"If this individual was given a document that was complete in terms of content but required text setting and the addition of appropriate graphics, I would expect her/him to:",

"Creatively use word-processing, desk-top publishing and appropriate diagrams, charts and tables to produce a visually compelling and professional document.",

"Employ word-processing, desk-top publishing and various graphical enhancements to produce a document that represents a good in-house standard.",

"Competently utilise standard text-editing processes to satisfactorily set the document, but be reticent or unable to use graphical techniques to illustrate the document.",

"Be capable of accurately keying in the text and data, but exhibiting very limited expertise and imagination in the setting of the document.",

"Be incapable of keying in text and data without significant errors and omissions and unable to set the document to any acceptable house style or standard.");

// Add Skill to Category

newCategory.addSkill(newSkill);

// Set Skill

newSkill=new Skill(

"Equipment",

"If this individual was asked to specify a range of office equipment required to support a growing operation, I would expect her/him to:",

"Competently research and locate sources of appropriate equipment, arranging demonstrations and submitting recommendations.",

"Appropriately research and demonstrate a working knowledge of contemporary technology, yet not feel sufficiently confident to offer recommendations.",

"Show an awareness of new office technology and be capable of researching new equipment and applications for others to evaluate.",

"Demonstrate a sound knowledge of in-house equipment, but show reluctance to research new equipment, methods and applications.",

"Show very little knowledge of new office technology and be reluctant to become involved in the activity.");

// Add Skill to Category

newCategory.addSkill(newSkill);

// Set Skill

newSkill=new Skill(

"Using IT",

"If this individual was asked to assist in the computerisation of various office records, I would expect her/him to:",

"Use database and spreadsheet packages to develop own ideas and create working models of appropriate processes.",

"Demonstrate a good working knowledge of different software applications and how each might be employed in the task.",

"Accurately translate the ideas of others onto appropriate software applications.",

"Efficiently input and manipulate data in specific software packages that are widely used by the organisation.",

"Have little knowledge of the software used by the organisation and unable to input data without assistance.");

// Add Skill to Category

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```
newCategory.addSkill(newSkill);

// Add Category to CategoryVector
this.CategoryVector.addElement(newCategory);

// Set Category
newCategory=new Category("Interpersonal Skills");

// Set Skill

newSkill=new Skill(
    "Influencing and Persuading",
    "If this individual needed to ask colleagues to
perform a task that they would almost certainly not wish to do, I
would expect her/him to:",
    "Present the task in a perceptive, sensitive manner,
such that colleagues will feel sufficiently motivated to
enthusiastically accomplish it.",
    "Persistently cajole colleagues into giving a
commitment to perform the task, albeit with little enthusiasm.",
    "Call on friendships and previous favours to gain
colleagues' grudging agreement to complete the task.",
    "Compromise, perhaps proposing that she/he will
complete certain aspects of the task if colleagues accomplish the
remainder.",
    "Be unlikely to persuade colleagues to perform any task
which they consider unpleasant.");
// Add Skill to Category
newCategory.addSkill(newSkill);

// Set Skill

newSkill=new Skill(
    "Verbal Communications",
    "If this individual was require to convey an
important, complex instruction to each individual member of a large
department, I would expect her/him to:",
    "Adopt an appropriate style and accurately relay the
instruction, checking that each recipient has absorbed and understood
the communication.",
    "Accurately convey instruction and test comprehension,
yet may exhibit a somewhat inflexible delivery style.",
    "Relay information accurately and check understanding,
but may appear insensitive in the manner that she/he conveys the
communication.",
    "Pass on all relevant information, but will neglect to
check that the instruction has been properly understood.",
    "Be unable to convey the instruction to others with any
degree of precision.");
// Add Skill to Category
newCategory.addSkill(newSkill);

// Set Skill

newSkill=new Skill(
    "Written Communications",
    "If this individual was required to write an
explanatory letter to a disgruntled customer, I would expect her/him
to:",
    "Accurately pitch the letter, adopting a sensitive
approach that is likely to appease the customer yet not compromise
the company.",
```

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```
"Adopt an open, sympathetic style that demonstrates
genuine concern, yet might lack a measure of insight in the
interpretation and solutioning of the issue.",
    "Produce a considered yet standard response which is
likely to neither perpetuate nor resolve the situation.",
    "Reflect a matter-of-fact position that appears devoid
of sensitivity and customer concern, potentially aggravating the
grievance.",
    "State in very blunt terms why the customer is directly
responsible for the circumstances leading to the complaint.");
// Add Skill to Category
    newCategory.addSkill(newSkill);

// Add Category to CategoryVector
    this.CategoryVector.addElement(newCategory);

// Set Category
    newCategory=new Category("Organising Ability");

// Set Skill

    newSkill=new Skill(
        "Organising External Factors",
        "If this individual was required to organise an off-
site meeting, I would expect her/him to:",
        "Efficiently research and complete all arrangements to
time and budget, exercising a high degree of initiative in venue
selection and contingency planning.",
        "Attend to all arrangements and invitations in an
efficient manner, complying as closely as possible with the original
brief.",
        "Competently complete all arrangements once advised of
the various tasks involved in the project.",
        "Satisfactorily organise the meeting if furnished with
detailed instructions.",
        "Instill a measure of doubt that all arrangements have
been adequately attended to.");
// Add Skill to Category
    newCategory.addSkill(newSkill);

// Set Skill

    newSkill=new Skill(
        "Self and Time Management",
        "If this individual was asked to complete a series of
tasks to specific deadlines, I would expect her/him to:",
        "Recognise the relative importance of individual tasks,
regularly reviewing and rescheduling the workload to best effect.",
        "Successfully schedule and action each task, but not
necessarily conduct regular reviews of workload to establish current
priority.",
        "Efficiently plan and monitor the work, but might
experience some difficulty in recognising and adjusting to changing
priorities.",
        "Plan the workload after obtaining the assistance of
others to identify priorities and generate appropriate task lists.",
        "Appear quite disorganised, tackling each task in
compliance with others' demands or as specific tasks reach crisis
point.");
// Add Skill to Category
    newCategory.addSkill(newSkill);

// Add Category to CategoryVector
```

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```
this.CategoryVector.addElement(newCategory);

// Set Category
newCategory=new Category("Team Working");

// Set Skill

newSkill=new Skill(
    "Team Interaction",
    "If this individual's department was unexpectedly
given an important yet unscheduled project, I would expect her/him
to:",
    "Demonstrate a highly developed team working mindset,
actively seeking ways of supporting other members of the
department.",
    "Willingly help others once becoming aware that they
require assistance.",
    "Provide assistance to other members of the team when
specifically requested to help.",
    "Help other members only when instructed by a
superior.",
    "Be totally unaware that others might appreciate their
support and assistance.");
// Add Skill to Category
newCategory.addSkill(newSkill);

// Add Category to CategoryVector
this.CategoryVector.addElement(newCategory);
}

public String getCategoryText(int CatNum) {
    if(CatNum>CategoryVector.size()) {
        return null;
    }
    else {
        return
        (String) ((Category)CategoryVector.elementAt(CatNum)).getCategoryText(
    );
    }
}

public String getScenarioText(int CatNum,int ScenNum) {
    if(CatNum>CategoryVector.size()) {
        return null;
    }
    else {
        if(((Skill) ((Category)CategoryVector.elementAt(CatNum)).getSkill(ScenNum)
        )!=null) {
            return
            (((Category)CategoryVector.elementAt(CatNum)).getSkill(ScenNum).getSc
            enarioText());
        }
        else
        {
            return null;
        }
    }
}

public String getSkillText(int CatNum,int ScenNum) {
    if(CatNum>CategoryVector.size()) {
        return null;
    }
}
```

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```
    }
    else {

if((Skill)((Category)CategoryVector.elementAt(CatNum)).getSkill(ScenNum)!=null) {
    return
    (((Category)CategoryVector.elementAt(CatNum)).getSkill(ScenNum).getSkillArea());
}
    else
    {
        return null;
    }
}

}

public String getResponse(int CatNum,int ScenNum,int RespNum) {
    if(CatNum>CategoryVector.size()) {
        return null;
    }
    else {

if((Skill)((Category)CategoryVector.elementAt(CatNum)).getSkill(ScenNum)!=null) {
    return
    (((Category)CategoryVector.elementAt(CatNum)).getSkill(ScenNum).getResponseText(RespNum));
}
    else
    {
        return null;
    }
}

}

public Skill getSkillObj(int CatNum,int ScenNum) {
    if(CatNum>CategoryVector.size()) {
        return null;
    }
    else {

if((Skill)((Category)CategoryVector.elementAt(CatNum)).getSkill(ScenNum)!=null) {
    return
    (Skill)((Category)CategoryVector.elementAt(CatNum)).getSkill(ScenNum);
}
    else
    {
        return null;
    }
}

}

public String createReport() {
    int totResponses=0;
    int totCatScore=0;
    int Responses;
    int CatScore;
    int i=0;
    int j=0;
    boolean Loop;
    Vector SkillSetVector;
```

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```

AnalyserMap MyAnalyserMap;
StringBuffer reportTextBuffer;
reportTextBuffer = new StringBuffer("BES Training Needs
Analyser\nDiagnostic Results\n"+(new Date()).toString()+"");
while(i<CategoryVector.size() &&
((Category)CategoryVector.elementAt(i)).hasResponses()) {

reportTextBuffer.append("\n\n"+((Category)CategoryVector.elementAt(i)
).getCategoryText());
    CatScore=0;
    Responses=0;
    MyAnalyserMap = new AnalyserMap();

while(((Category)CategoryVector.elementAt(i)).getSkill(j)!=null) {

if(((Category)CategoryVector.elementAt(i)).getSkill(j).valid()) {
    Responses++;
    totResponses++;

CatScore+=((Category)CategoryVector.elementAt(i)).getSkill(j).getResp
onse();

totCatScore+=((Category)CategoryVector.elementAt(i)).getSkill(j).getR
esponse();

MyAnalyserMap.addElement(((Category)CategoryVector.elementAt(i)).getS
kill(j));
    }
    j++;
}
if (Responses>0) {
    CatScore*=10;
    CatScore/=Responses;
}
reportTextBuffer.append("  Category Rating: "+(new
Float((float)CatScore/10)).toString()+"\n");
    SkillSetVector=MyAnalyserMap.getSkillSet();
    for(int k=5,posSkill=0;k>=0 &&
posSkill<SkillSetVector.size();k--) {    // for(int
k=5,posSkill=0;k>=0 &&
SkillSetVector.elementAt(posSkill)!=SkillSetVector.lastElement();k--)
{

if(k==((Skill)SkillSetVector.elementAt(posSkill)).getResponse()) {
    switch(k) {
        case 5:
            reportTextBuffer.append("\nYour response indicates
that this individual has attained a very high standard in various
competencies and might benefit from a role extention requiring the
following skill areas:\n");
            break;
        case 4:
            reportTextBuffer.append("\nYour response indicates
that this individual has achieved a good standard in following
competencies which should be monitored with a view to future role
development:\n");
            break;
        case 3:
            reportTextBuffer.append("\nYour response indicates
that this individual has no major weaknesses in the following
competencies but will benefit from more advanced training and
practical application:\n");
            break;
    }
}
}
}

```

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```
        case 2:
            reportTextBuffer.append("\nYour response indicates
that this individual has not yet attained a satisfactory in-house
standard in the following competencies and should be recommended for
training:\n");
            break;
        case 1:
            reportTextBuffer.append("\nYour response indicates
that this individual displays major weaknesses in the following
competencies and should be recommended for foundation or remedial
training:\n");
            break;
    }
    do {

reportTextBuffer.append(((Skill) SkillSetVector.elementAt(posSkill)).g
etSkillArea()+"\n");
        posSkill++;
        if(posSkill<SkillSetVector.size()) {

Loop=(k==((Skill) SkillSetVector.elementAt(posSkill)).getResponse());
            }
            else {
                Loop=false;
            }
        } while(Loop);
    }
    i++;
    j=0;
}
if (totResponses>0) {
    totCatScore*=10;
    totCatScore/=totResponses;
}
reportTextBuffer.append("\n\n
Overall Rating: "+(new Float((float) totCatScore/10)).toString());
return reportTextBuffer.toString();
}
}
```


APPENDIX 4

```
//Title: BES Training Needs Analyser
//Version: 1.0
//Copyright: 1998 MJ Lovell & MJ Leat
//Programmed by: JR Chappell
//Description: Training Needs Analyser
//
```

```
package BES;
```

```
import java.util.Vector;
```

```
public class AnalyserMap {
```

```
    Vector MapVector;
```

```
    public AnalyserMap() {
        int i;
        MapVector = new Vector(5);
        for(i=0;i<5;i++){
            Vector newVector=new Vector();
            MapVector.insertElementAt(newVector,i);
        };
    }
```

```
    public void addElement(Skill newSkill) {
        ((Vector)MapVector.elementAt(newSkill.getResponse()-
1)).addElement(newSkill);
    }
```

```
    public Vector getSkillSet() {
        Vector SkillSetVector = new Vector(1,1);
        for(int i=4;i>0;i--) {
            if(!((Vector)MapVector.elementAt(i)).isEmpty()) {
                for(int j=0;j<((Vector)MapVector.elementAt(i)).size();) {
                    SkillSetVector.addElement(((Vector)MapVector.elementAt(i)).elementAt(
j++));
                }
            }
        }
        return SkillSetVector;
    }
}
```

ILLUSTRATIVE DIAGNOSTIC INSTRUMENT

From the preceding research into the training and developmental needs of secretarial and administrative support staff, subsequent analysis has established the knowledge, skills and abilities that might be beneficially incorporated within an appropriate needs analysis procedure (see TABLES 9.7, 10.17 and 10.19). The next phase considers the design and operating features of the proposed instrument prior to the construction of a prototype. It is intended that the instrument shall be capable of adaptation, both as a self-assessment as well as a third party needs analysis mechanism, whilst its sole purpose shall be the determination of training and developmental needs from expectations relating to the performance of self, or others, in various simulated scenarios. As far as practicable, each scenario shall typically relate to the workplace or an identifiable social situation and associated behavioural anchors shall be concise, unambiguous and capable of providing an accurate representation of varying performance standards. The instrument shall be simple to use and, where feasible, diagnostic processes shall be automated or otherwise accomplished within the body of the instrument.

Operating features:

Considering firstly its principal operating features, the instrument shall ideally be capable of portraying any number of workplace and interpersonal scenarios, each focusing on a particular competence and illustrating various performance dimensions and indices of effectiveness that are relevant to the organisation, the task and the individual. Every scenario will be further translated into five behavioural anchors, each describing levels of achievement or behavioural responses in progressive terms extending from very poor to very good or very unacceptable to very acceptable.

Thus, in subsequently anticipating the performance of the *subject* within a series of scenarios, the training needs *reviewer* will essentially ascribe behavioural descriptors to expected levels of competence, thereby positioning them on a number of behavioural expectation scales (BES) that will be collectively linked to a TNA diagnostic mechanism. Following their collation, the behavioural ratings will be analysed and then summarised in the form of a diagnostic needs analysis report that recommends appropriate training and developmental interventions.

In devising the various scenarios and behavioural descriptors, the associated language shall be perceived to be non-threatening and consequently devoid of any judgemental connotations. Hence, unacceptable performance in a particular dimension shall not infer a degree of failure, but shall highlight a deficiency which, when corrected, will be seen to benefit the individual, task and organisation. Similarly, in providing representative scenarios to focus the interpretation of each competency, the *subject* and/or *reviewer* shall have clear examples of that which constitutes varying standards of performance within each dimension.

The needs analysis report shall be produced as a personalised document that will transcribe expectations of *subject* performance into an accurate assessment of current competence. Each competency may be illustrated by a number of scenarios from differing individual, task and organisational perspectives, whilst the collated ratings for a singular competency may additionally contribute to an overall group rating. Thus, the rating of a single dimension (eg., listening skills) might expose a deficiency which, when considered within a group context (eg., interpersonal skills) may nevertheless subscribe to a sufficiently high standard of overall proficiency to consequently influence the choice of remedial training. Whichever, both single and group ratings shall suggest training and developmental interventions that might elevate standards of performance to at least the next level on the behavioural expectation scale.

With specific regard to diagnostic precision, the instrument shall be capable of being continuously refined, adjusted and extended in order to maximise any psychometric properties that it might subsequently acquire as the result of feedback and revision. It is therefore envisaged that over time the instrument will become progressively bespoke as it responds to outer and inner contextual influences on organisational objectives, task requirements and the aspirations and needs of administrative support staff.

Design features:

In considering the design of the instrument, it perhaps seems reasonable to create the instrument as an executable computer program, thereby negating its dependence on unwieldy paperwork systems whilst facilitating the automatic collation and interpretation of multiple rating scores.

However, in specifying such a program it is evident that there might be a significant diversity in the specification of computer equipment that may be available to the user.

For instance, although approximately 60% of home-computer users have opted for a 32bit operating system based on Windows 95 or Windows New Technology (NT), less than 25% of corporate users have progressed from the 16bit Windows 3.11 user interface, despite the fact that the former is in various ways more stable, intuitive and easier to install. Whilst the reasons for this may be many and varied and not least associated with the preferences and prejudices of systems administrators, they are most likely concerned with:-

- i)* the not inconsiderable cost of licensing the new operating system as a multi-user ;
- ii)* the requirement for additional (and comparatively expensive) random access memory in order to benefit from allegedly superior multi-tasking capability;
- iii)* the probability of pressure from internal users to replace venerable software packages with more sophisticated 32bit versions;
- iv)* the time and cost involved in familiarising staff with the new operating system.

It is therefore evident that unless the proposed instrument is capable of running on a wide range of micro-processors from the modest 286 to the latest Pentium derivative, then a considerable number of potential users might be precluded. Conversely, if the instrument is functional on machines operating any commercially available version of Microsoft (MS) Windows, then its utility may not necessarily be limited to in-house applications but might equally extend to individual access via the home computer.

Thus, the most appropriate software code for distributing the instrument would seem to be either Visual Basic version 3.0 (VB3), or Java - the former theoretically compatible with all versions of MS Windows and the latter additionally compatible with other platforms such as Macintosh, OS/2, Next, Unix and Linux. It was therefore decided to compile the instrument in Java using Borland's JBuilder version 1.0.

Nonetheless, the first task is to construct a working prototype and compile and embed relational databases that interlink the anticipated five levels of enquiry, ie:

- 1. the competency
- 2. the scenario illustrating
 - a)* the individual's perspective
 - b)* the task perspective
 - c)* the organisation's perspective
- 3. the five behavioural expectations for each scenario incorporated into a rating scale
- 4. the diagnostic report consolidating the ratings
- 5. the determination of the appropriate training and developmental intervention

Thus, a developmental package is required that will facilitate the construction of these

databases whilst enabling the overview and reconciliation of the multiple combinations arising from the various relationships. Thus a relational database management system (RDBMS) is implied and Visual FoxPro version 3.0 is subsequently selected as a suitable package in which to build and test the prototype due to its intuitive, object orientated functionality.

An example of scenario design:

In chapter five, a simple behavioural expectation scale is illustrated (see DIAGRAM 5.1) wherein literary and text processing skills are progressively represented on a scale that extends from a low expectation of competence to an elevated one. Using this example as a foundation for developing a task-based relational database, it is first necessary to describe a scenario with which the training needs reviewer might readily identify.

For instance, *"I have all of the relevant notes necessary to produce a report but they are summarized and grammatically unstructured. If I gave these notes to I would expect her/him to:*

5. *Demonstrate the highest standard of literary proficiency, using desk-top publishing and other data enhancements to produce an extremely professional report.*
4. *Create a well written and accurate report, using text editing processes to produce a document that represents a good in-house standard.*
3. *Produce a grammatically competent document, but lacking overall flair in the use of language and in the style of presentation.*
2. *Experience great difficulty in composing a report from source information, but be able to accurately reproduce the data without typographical errors.*
1. *Be incapable of retyping the notes without additional explanation and without typographical errors and omissions."*

In subsequently linking each rating to a diagnostic database, rating 5 might suggest no intervention other than a periodic check to ensure that such expertise is being appropriately utilised. However, a rating of 5 might equally imply a developmental opportunity by way of horizontal job enlargement into marketing, technical authorship, or indeed any function involving the generation of documented procedures.

To a lesser degree, rating 4 echoes the diagnosis of rating 5 but perhaps implies that an even higher standard may be achieved with practice. Hence, this rating might indicate

that the individual will benefit from increased exposure to situations requiring creative writing skills. However, neither ratings 4 nor 5 imply a remedial intervention, but instead suggest a monitorial overview of the subject's progress in order to ensure that competence is maintained or more finely honed.

Nevertheless, a rating of 3 or below does indicate that the subject might benefit from additional training, either in word-processing skills or in report and/or creative writing. However, whilst the former might include word-processing, desktop publishing and PowerPoint presentation, the latter may encompass such activities as technical authorship and media copywriting. Thus, it is at this juncture that a measure of ambiguity enters the process and it consequently becomes evident that the instrument will offer greater discrimination if it deals with one issue at a time rather than attempting to merge several competencies. For example, by disassociating word-processing from report writing skills in the above illustration, the instrument might present a more concise series of behavioural anchors to add greater precision to the diagnostic process.

Therefore, the example scenario may beneficially be revised and restated in the form of two scripts, thereby improving the level of discrimination by effectively doubling the number of behavioural expectations. For instance, the first script might state, *"I have all of the relevant notes necessary to produce a report but they are summarized and grammatically unstructured. If I gave these notes to I would expect her/him to:*

5. *Demonstrate the highest standard of literary proficiency, using well crafted and succinct vocabulary to produce an interesting and very professional written report.*
4. *Create a well written and accurate report, using appropriately structured language to produce a document that represents a good in-house standard.*
3. *Produce a grammatically competent but somewhat uninteresting document, lacking a measure of originality and persuasion in the composition of the report.*
2. *Experience great difficulty in composing a report from source information, being grammatically competent yet unable to express ideas with brevity and clarity.*
1. *Be incapable of planning, structuring and producing a report of an acceptable standard, exhibiting limited comprehension and poor written composition."*

Correspondingly, the second script might state, *"I have written a technical report that is complete in terms of content, but requires text setting and the addition of appropriate graphics. If I gave this report to I would expect her/him to:*

5. *Creatively use word-processing, desk-top publishing and appropriate diagrams, charts and tables to produce a visually compelling and professional report.*
4. *Employ word-processing, desk-top publishing and various graphical enhancements to produce a report that represents a good in-house standard.*
3. *Competently utilise standard text-editing processes to satisfactorily set the report, but be reticent or unable to use graphical techniques to illustrate the report.*
2. *Be capable of accurately keying in the text and data, but exhibiting very limited expertise and imagination in the setting of the report.*
1. *Be incapable of keying in text and data without significant errors and omissions; and unable to set the document to any acceptable house style or standard."*

Hence, in segregating report-writing from word-processing skills and presenting them as two distinct scripts, the *reviewer* can perceivably focus more precisely on the *subject's* competence and on associated training and developmental needs. Nevertheless, it may still be apparent that the scenario could be further split to add even finer discrimination. For example, in assessing the *subject's* competence in report writing, the *reviewer* could be asked to evaluate expectations relating to:

Preparation, with behavioural descriptors ranging from (5) very favourable to (1) poor .

<i>Planning,</i>	"	"	"	"	"	"	"	"	"
<i>Structure,</i>	"	"	"	"	"	"	"	"	"
<i>Grammar,</i>	"	"	"	"	"	"	"	"	"
<i>Accuracy,</i>	"	"	"	"	"	"	"	"	"

Moreover, if competence in word-processing is similarly extended, it can be seen that the original five behavioural expectations will expand to fifty, yet the question remains whether or not this greater degree of precision will add significantly to the integrity of the instrument.

Perceivably, the format will have changed from an intuitive evaluation of notional critical incidences to a specific check list of related competencies. Whilst it seems likely that, in the case of the example, the first increment from five to ten behavioural anchors will improve diagnostic sensitivity, a further increment might detract from its instinctive nature by forcing the reviewer to focus on components of the competence rather than collective aptitude. Additionally, in attempting to collate the ratings from each component, the reviewer is seemingly faced with the task of making value judgements regarding which components are having the greater influence on the subject's overall proficiency.

Therefore, although the *reviewer* will arguably arrive at the same conclusion regarding the training and developmental needs of the *subject*, the *reviewer* will nevertheless have undergone a more objective, time-consuming procedure. Furthermore, by nature of this very objectivity the instrument might perceivably exhibit judgemental overtones, therein tempting the *reviewer* to leniency and rendering bias in the assessment of the various components (see CHAPTER FOUR especially Murphy and Constans, 1987). Moreover, it might encourage a form of halo effect where proficiency in one component of the competence is somehow reflected in another (Murphy and Anhalt, 1992).

Thus, it is suggested that in unambiguously locating scenarios and behavioural expectations within a readily identifiable context, adequate discrimination for effective needs analysis may be achieved without recourse to analysis at the component level of skill assessment. The instrument will consequently be simpler to apply and the interpretation arguably more accurate insofar as it might not encourage needless leniency in the assessment of behavioural expectation (Borman and Vallon, 1974) - even, perhaps, where *reviewer* and *subject* are one and the same. It is therefore conceivable that any complexity associated with the proposed diagnostic mechanism will likely relate to the devising of appropriate scenarios and resultant expectations rather than with the subsequent application of the instrument.

Introductory screen:

However, to introduce a series of workplace scenarios and behavioural expectation scales without appropriate introduction might feasibly result in conjecture and misapprehension regarding its purpose. Moreover, it is evident from the literature that a performance appraisal procedure is likely to be more accurate and less influenced by bias and rater concerns when its application is solely developmental (Cascio, 1992; and Hyde and Smith, 1982). Thus, once relational connections between competency, scenario, behaviour and diagnosis have been established, the initial phase of construction shall include the composition of an introductory screen to clearly explain the instrument's developmental intention and provide succinct instruction to the user.

Whilst it is envisaged that the prototype instrument will be initially developed as a third-party diagnostic tool, there is no apparent reason why the procedure will not be equally effective as a self-diagnosis mechanism. Nonetheless, the prototype introductory screen will be phrased in a manner that reflects the instrument's third-party application, ie:

BES Training Needs Analyser for Secretarial Personnel

PLEASE READ CAREFULLY BEFORE COMMENCING THE PROGRAM

The purpose of this diagnostic instrument is to assist you in making the most appropriate training and development choices for your secretarial staff and your organisation. Utilising a form of behavioural expectation scale it will help you to focus on their present knowledge, abilities and learning objectives and where necessary propose appropriate training initiatives.

The program covers a range of competencies which are illustrated by a number of work-related scenarios. As each new dialogue box emerges, please read the five performance descriptions for each scenario from bottom (1) to top (5) and select the one button that most closely matches your belief regarding the individual's anticipated performance. This selection will then trigger an acknowledging pop-up screen while information is passed to a diagnostic database.

After you have worked through the BES program a training needs analysis will be automatically generated advising you of any skill areas that you might beneficially monitor or address.

Index of Categories

Index of categories:

Having read the introductory screen, the *reviewer* will depress a radio button to reveal the first of three index screens. The initial screen will feature the nine competencies that are identified in the previous chapter as 'conventional' skills; the second screen will exhibit the seven competencies defined as 'VRI related'; and the third screen will display the nine competencies identified as 'HJE related' (see TABLE 10.19). Thus, the *reviewer* will consider the *subject* firstly in terms of her or his normal task role and then, if appropriate, extend the diagnosis to include aspects of vertical role integration and/or horizontal job enlargement.

However, deciding the appropriateness of extending the analysis to encompass VRI and/or HJE is a decision that has to be made whether the *reviewer* and *subject* are distinct individuals or are one and the same. Whilst the third-party *reviewer* will need to exercise a discretionary expectation regarding the *subject's* enthusiasm for VRI and HJE related topics, the first-person *reviewer/subject* will need to form a similar expectation of the organisation's predisposition to support VRI and HJE agendas. Therefore, notwithstanding the individual's suitability to perform certain monitorial or paraprofessional activities (eg., due to trait, personality or other psychological constraints), it might initially appear inexpedient to assess a *subject's* training needs in topics that are likely to

engender little or no interest. For similar reasons it is seemingly important for the self assessor to have a realistic appreciation of those topics that are likely to be endorsed and encouraged by the organisation as opposed to those that may have to be pursued privately as part of a personal development initiative.

However, irrespective of the individual's or organisation's predisposition towards VRI and HJE it might nonetheless be beneficial for both the third party reviewer and the self assessor to complete all indexed categories. In doing so each party might gain valuable insight into other dimensions not previously considered, perhaps revealing new skills that both organisation and individual may exploit in the pursuit of mutually compatible goals.

Thus, through the *reviewer* the organisation might:

- i) Establish those competencies in which the *subject* excels
- ii) Plan appropriate training and developmental initiatives
- iii) Gather data for a company-wide skills inventory
- iv) Obtain meaningful information for a SWOT analysis
- v) Manage organisational change through VRI and HJE programmes
- vi) Clarify successor and expansion planning
- vii) Evaluate concordance between organisational goals and individual objectives
- viii) Monitor and objectively measure the effectiveness of training initiatives via a periodic comparison of the collective rating score

Through self-assessment the *subject* might:

- i) Identify own strengths and weaknesses
- ii) Establish a personal development plan
- iii) Distinguish between organisational and personal training responsibilities
- iv) Obtain relevant focus as an aid to recognising personal aspirations
- v) Identify a career path through the organisational structure
- vi) Evaluate concordance between individual objectives and organisational goals
- vii) Monitor and objectively measure compliance with a personal development plan via a periodic comparison of the collective rating score

Fundamentally, the index of categories represents the competence options available for *subject* review. Therefore, in the event that the *reviewer* chooses not to evaluate certain competencies, the mechanism will allow for the deselection of individual skill areas without adversely influencing the overall integrity of the rating process. Thus, where a *reviewer* omits certain categories the instrument will discount these from the resultant training needs analysis, thereby avoiding a distortion in the collective scoring.

BES Index of Categories

- 1 Assertiveness
- 2 Business Awareness
- 3 Computer Literacy
- 4 Information Technology
- 5 Interpersonal Skills
- 6 Organising Abilities
- 7 Team-Working
- 8 Time Management
- 9 Word Processing

Continue

Behavioural expectation screen:

After reviewing the index of categories, the user will depress a continuation radio button to load the next behavioural expectation screen. This screen will comprise the main application window and will display the various decision elements - the topmost positions being occupied by those panels depicting *categories*, *skill areas* and *scenarios*.

Directional radio buttons will accompany both category and skill area panels, thus enabling the user to return to previous selections to effect changes, or advance the instrument to pass over categories and skill areas that are perceivably inconsequential.

Mid positions on the window will be occupied by the five behavioural expectations appertaining to each scenario. To the right of each behavioural descriptor will be a radio button numbered from 1 to 5, with the lowest position occupied by 1 and relating to the least desired expectation and the highest position occupied by 5 and relating to the most desired expectation. To the left of the descriptors will be a thermometer-like indicator giving a visual representation of any selected descriptor's relative position on the resultant five-point behavioural scale.

At the bottom of the window will be located a row of five radio buttons:

- i) *view* - providing the user with visibility of the diagnostic report

- ii) *print* - enabling the user to print the report
- iii) *save* - to archive the report to hard-drive or floppy disk
- iv) *about* - providing ownership and instrument licensing details, and
- v) *exit* - to leave the diagnostic program.

Pop-up screens will be employed to inform the user when the instrument is updating the diagnostic database and advise the user when to select the next skill area or category.

BES Training Needs Analyser			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Category	<input type="checkbox"/>	Word Processing			
Skill Area	<input type="checkbox"/>	English Comprehension and Writing Skills			
Scenario	I have all of the notes necessary to produce a report but they are summarised and ungrammatical. If I gave these notes to I would expect her/him to:				
	Demonstrate the highest standard of literary proficiency, using well-crafted and succinct vocabulary to produce a very professional report			5	
	Create a well-written and accurate report, using appropriately structured language to produce a document of good in-house standard			4	
	Produce a grammatically competent but uninteresting document, lacking a measure of originality and persuasion in its composition			3	
	Experience great difficulty in composing a report from source information, being unable to express ideas with brevity and clarity			2	
	Be incapable of planning, structuring and producing an acceptable report, exhibiting limited comprehension and poor composition			1	
View		Print		Save	
About		Exit			

Diagnostic report screen:

Having progressed through the various categories and skill areas, the user will be prompted to view the diagnostic report. This report will be sectioned by category, with each skill area listed and allocated a score of between 1 and 5, precisely reflecting the *subject's* rating in each dimension. These skill area scores will be summated at the end of each category and the mean score computed based on the total number of skill dimensions reviewed. Thus, only those categories and skill areas that are subject to review will be included in the report, thereby ensuring that periodic omissions and inclusions will be readily transparent yet will not invalidate the overall mean score. Moreover, each individual behavioural score can, as previously discussed, translate into a developmental, monitorial or training recommendation which will be recorded alongside

the related skill area. Nevertheless, it might not be unusual for the diagnostic report to reveal that a *subject's* performance expectation is highly favourable in the majority of skill dimensions and unfavourable in only one or two. It is at this juncture that the overall mean category score will become important in establishing the level of training required. For example, if a Secretary's overall mean score for interpersonal effectiveness is 4.5 (implying monitorial overview for developmental opportunities) yet she scores 1 for assertiveness (suggesting remedial training) it is perhaps intuitively inappropriate to advise her to attend an assertiveness programme where other participants are clearly remedial in terms of general performance expectations.

Therefore, the overall mean score for each category is arguably important not only as a comparative measure of behavioural expectation over time but also as a contextual mechanism for locating the standard of interpersonal, vocational, or academic training. Thus it must be balanced against the notion that an individual's perception of personal ability may be shaped by the extent of prior knowledge and experience, and consequently that which passes for high performance from one viewpoint might be seen as mediocre from a more informed position.

BES Training Needs Analyser		
BES Training Needs Analyser		
Diagnostic Results 15/04/98		
SCORE	CATEGORY	RECOMMENDATION
	Word Processing	<i>Response indicates that you should monitor pro</i>
4		Keyboard speed and accuracy
3		Text and image processing
		<i>Response indicates that you should arrange first</i>
2		Comprehension and English compositi
	Assertiveness	<i>Response indicates that you should monitor pro</i>
3		Persuasive and positive communicatio
3		Handling difficult situations, conflicts

Screen appearance, report printing and data archiving:

In endeavouring to heighten the user's perception of the diagnostic instrument, it is seemingly important that associated windows and graphics be rendered to a standard comparable with commercially available software packages. Moreover, considering the fact that the BES diagnostic program is intended to run on micro-computers of varying vintage, the graphics shall be capable of faithful reproduction on computer monitors displaying all standard screen resolutions. Thus, at one extreme the instrument shall be capable of excellent rendition in high resolution, true colour mode; and at the other it shall reproduce clearly in the lowest colour depth and screen resolution ordinarily encountered - ie., 256 colours at 640 x 480 (VGA) or 800 x 600 (Super VGA).

The diagnostic report shall be structured in such a manner that it can be printed onto an A4 footprint, whilst the process of printer setup and page printing shall be simpler than that typically exhibited by other windows programmes. Hence, instead of the print menu being a sub-menu of the Windows file menu, the print process shall be directly accessible from its own radio button.

The save feature shall be similarly simple to access, the save process being activated by its own radio button rather than accessible from a sub-menu of the Windows file menu. Equally, details relating to instrument registration and copyright shall likewise be accessed from a distinctive radio button as shall the program exit command. Thus, in deploying simple graphics the program might appear platform neutral, therein encouraging users who may be unused to the Windows operating system whilst pre-empting the instrument's future porting to other operating environments such as Java and OS/2.

Finally, based on the features discussed earlier in this chapter, a specification was drawn up for the BES diagnostic instrument as a precursor to rendering the graphics and compiling the relational database that would underpin the diagnostic process.

Process of instrument design, construction and validation:

One of the central precepts gleaned from the literature is the desirability of linking training and developmental objectives with organisational objectives as a precondition for improving employee motivation, job performance and organisational effectiveness (see especially Bramley, 1989). Thus, it is apparent that any attempt to develop a needs analysis instrument based solely on collective perspectives of task and individual need will arguably result in a tool that offers no significant improvement over other

contemporary mechanisms. Hence, whilst the relative importance of cultural and skill components may be determined from survey data, it is nonetheless an organisational context that is required in order to integrate the three levels of analysis posited by McGehee and Thayer (1961).

Therefore, it was intended to approach a previously surveyed company to help devise scenarios that might reflect the training objectives of that organisation and its administrative support staff. Thus, it was felt that the diagnostic mechanism would assume a bespoke quality that might enhance its credibility with the enlisted user's organisation and feasibly enlarge the pool of critical incidents on which to model the behavioural expectation scales.

In addition to contributing to behavioural scale development it was anticipated that the assisting organisation would also provide a means of appraising the finished prototype. Nonetheless, it was considered somewhat unreasonable to expect a busy organisation to overly involve itself in an unsolicited research programme and therefore the analytical function of the prototype was restricted to conventional aspects of the administrative task role, omitting both VRI and HJE related skill areas (see TABLE 10.19) in a bid to limit executive participation. However, whilst this might constitute partial analysis at the person, task and organisational level, its analytical properties are clearly diminished inasmuch as the instrument fails to consider need in relation to individual and organisational aspirations for horizontal job enlargement and vertical role integration. Therefore, subsequent validation of the prototype instrument is not intended to ratify the full conceptual procedure illustrated in DIAGRAM 5.2, but is nonetheless aimed at ascertaining its fitness for further exploration by a Top 1,000 or similar high turnover company.

One such company is Britannia Airways, described in their own literature as the world's largest charter airline and whose industrial profile (Dun and Bradstreet, 1997) is as follows:

Britannia Airways Limited - a subsidiary of Thompson Tour Operations Limited
Chartered Airline Operators (UK SIC Code 75000) formed in 1962 and based at
Luton International Airport, Luton, Bedfordshire
Sales Turnover = £630,350,000 (1996 accounts) Employees = 3,110

Moreover, this company offered to help the author develop behavioural expectation scales that were relevant to the organisation and specifically to the secretarial and administrative support staff working within it. Additionally, the Department of Staff Training and

Development elected to consolidate and review the developed scales and conduct a number of training needs analyses using the prototype diagnostic instrument.

Therefore, a list of the conventional skill areas revealed by the survey was compiled and provisional scenarios attached to each bearing notional behavioural expectations. These were given to Britannia Airways Staff Training for consideration and reported to be very much in line with the range of competencies typically required of their administrative support staff:

- Assertiveness
- Business Awareness
- Computer Literacy
- Information Technology
- Interpersonal Skills
- Organising Ability
- Team-Working
- Time Management
- Word Processing

However, Britannia felt that certain distinctions are dimensional rather than categorical and consequently reduced the original nine competencies to six - Word Processing and Computer Literacy being considered dimensions of Information Technology; and Time Management a dimension of Organising Ability. Thus, the range of conventional skill areas and associated dimensions identified by Britannia are as follows:

- | | |
|-------------------------|---|
| Assertiveness: | Task Effectiveness
Human Relations
Communications
Delegating |
| Information Technology: | Equipment
Using IT
Computer Literacy |
| Business Awareness: | Analytical Methods
Business Appreciation |
| Interpersonal Skills: | Influencing and Persuading
Written Communications
Verbal Communications |
| Organising Ability: | Self and Time Management
Organising External Factors |
| Team Working: | Team Interaction |

In subsequent meetings with the Department of Staff Training and Development, appropriate behavioural expectation scales were devised for each dimension and refined

into a manual form that could be used by Britannia to review the concept. Initial responses were very favourable and consequently the verified category descriptors and behavioural responses (see APPENDIX 3) were hardcoded into an interactive program (see APPENDIX 4 for full source code) and distributed as an executable computer application.

The BES diagnostic instrument is presently undergoing evaluation at Britannia Airways after which it will be reviewed and extended to include dimensions of HJE and VRI. If it performs to expectation it might provide an effective appraisal mechanism for focusing on training and developmental needs, without the untruths, biases and distortions that are symptomatic of many contemporary procedures (Longenecker and Ludwig, 1995).

TABULATION 1

Q01_A Principal Business Activity by Q04_01 Market Responsive

Page 1 of 1

Count	Q04_01					Row Total
	Very Important 1	Quite Important 2	Neither Unimp. N 3	Quite Unimportant 4	Very Unimportant 5	
Q01_A						
2 Mining & Chem. P	3	1				4 3.7
3 Construction & C	10	3				13 12.0
4 Metal Goods, Eng	5	2				7 6.5
5 Elec. Eng., Elec	8	1				9 8.3
6 Other Manuf. Ind	16	2	2			20 18.5
7 Trans., Comms.,	9	1		1		11 10.2
8 Wholesale & Petr	5	1				6 5.6
9 Retail, Rest'nt,	12	1				13 12.0
10 Finance, Insur.,	9	2				11 10.2
11 Bus., Services &	7	1			1	9 8.3
12 Health, Educ., &	2					2 1.9
13 Pub. Admin., Law	1		1	1		3 2.8
Column Total	87 80.6	15 13.9	3 2.8	2 1.9	1 .9	108 100.0

Chi-Square	Value	DF	Significance
Pearson	53.42786	44	.15600
Likelihood Ratio	29.91520	44	.94815
Mantel-Haenszel test for linear association	1.89260	1	.16891

Minimum Expected Frequency - .019
Cells with Expected Frequency < 5 - 52 OF 60 (86.7%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.70335			.15600 *1
Cramer's V	.35168			.15600 *1
Contingency Coefficient	.57530			.15600 *1
Lambda :				
symmetric	.02752	.02369	1.14070	
with Q01_A dependent	.03409	.02955	1.14070	
with Q04_01 dependent	.00000	.00000		
Goodman & Kruskal Tau :				
with Q01_A dependent	.03612	.00534		.53554 *2
with Q04_01 dependent	.07226	.04089		.93173 *2
Uncertainty Coefficient :				
symmetric	.09233	.03075	2.78102	.94815 *3
with Q01_A dependent	.05932	.02111	2.78102	.94815 *3
with Q04_01 dependent	.20823	.05576	2.78102	.94815 *3

- *1 Pearson chi-square probability
- *2 Based on chi-square approximation
- *3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 1

Q01_A Principal Business Activity by Q04_02 Innovative

		Q04_02		Page 1 of 1	
Count		Very Important	Quite Important	Im Neither Unimp. N	Row Total
		1	2	3	
Q01_A					
	2	2	1	1	4
Mining & Chem. P					3.7
	3	2	7	4	13
Construction & C					12.0
	4	2	3	2	7
Metal Goods, Eng					6.5
	5	9			9
Elec. Eng., Elec					8.3
	6	9	7	4	20
Other Manuf. Ind					18.5
	7	5	4	2	11
Trans., Comms.,					10.2
	8	3	3		6
Wholesale & Petr					5.6
	9	4	6	3	13
Retail, Rest'nt,					12.0
	10	4	6	1	11
Finance, Insur.,					10.2
	11	5	3	1	9
Bus., Services &					8.3
	12	1		1	2
Health, Educ., &					1.9
	13	1	1	1	3
Pub. Admin., Law					2.8
Column		47	41	20	108
Total		43.5	38.0	18.5	100.0

Chi-Square	Value	DF	Significance
Pearson	23.77568	22	.35910
Likelihood Ratio	29.12130	22	.14143
Mantel-Haenszel test for linear association	.22100	1	.63828

Minimum Expected Frequency - .370
Cells with Expected Frequency < 5 - 32 OF 36 (88.9%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.46920			.35910 *1
Cramer's V	.33177			.35910 *1
Contingency Coefficient	.42477			.35910 *1
Lambda :				
symmetric	.06711	.06083	1.07166	
with Q01_A dependent	.00000	.07187	.00000	
with Q04_02 dependent	.16393	.08740	1.73883	
Goodman & Kruskal Tau :				
with Q01_A dependent	.02070	.00836		.32829 *2
with Q04_02 dependent	.12163	.02610		.25049 *2
Uncertainty Coefficient :				
symmetric	.07985	.02034	3.87720	.14143 *3
with Q01_A dependent	.05774	.01472	3.87720	.14143 *3
with Q04_02 dependent	.12938	.03312	3.87720	.14143 *3

- *1 Pearson chi-square probability
- *2 Based on chi-square approximation
- *3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 1

Q01_A Principal Business Activity by Q04_03 Goal Orientated

		Q04_03				Page 1 of 1
Q01_A	Count	Very Imp ortant 1	Quite Im portant 2	Neither Unimp. N 3	Quite Un important 4	Row Total
	2	3	1			4
Mining & Chem. P						3.7
	3	11	1	1		13
Construction & C						12.0
	4	3	3	1		7
Metal Goods, Eng						6.5
	5	6	3			9
Elec. Eng., Elec						8.3
	6	13	6	1		20
Other Manuf. Ind						18.5
	7	8	2		1	11
Trans., Comms.,						10.2
	8	5	1			6
Wholesale & Petr						5.6
	9	9	2	2		13
Retail, Rest'nt,						12.0
	10	9	1	1		11
Finance, Insur.,						10.2
	11	8	1			9
Bus., Services &						8.3
	12		2			2
Health, Educ., &						1.9
	13	3				3
Pub. Admin., Law						2.8
Column		78	23	6	1	108
Total		72.2	21.3	5.6	.9	100.0

Chi-Square	Value	DF	Significance
Pearson	30.51395	33	.59148
Likelihood Ratio	27.17724	33	.75187
Mantel-Haenszel test for linear association	.24484	1	.62073

Minimum Expected Frequency - .019
Cells with Expected Frequency < 5 - 40 OF 48 (83.3%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.53154			.59148 *1
Cramer's V	.30689			.59148 *1
Contingency Coefficient	.46936			.59148 *1
Lambda :				
symmetric	.03390	.02002	1.65353	
with Q01_A dependent	.02273	.02247	1.00466	
with Q04_03 dependent	.06667	.04554	1.42749	
Goodman & Kruskal Tau :				
with Q01_A dependent	.02443	.00713		.67835 *2
with Q04_03 dependent	.12109	.03723		.22224 *2
Uncertainty Coefficient :				
symmetric	.08109	.02472	3.10714	.75187 *3
with Q01_A dependent	.05389	.01705	3.10714	.75187 *3
with Q04_03 dependent	.16376	.04612	3.10714	.75187 *3

- *1 Pearson chi-square probability
- *2 Based on chi-square approximation
- *3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

Q01_A Principal Business Activity by Q04_04 Technologically Orientated

		Q04_04					Page 1 of 1	
Count		Very Imp	Quite Im	Neither	Quite Un	Very Uni	Row	
		ortant 1	portant 2	Unimp. N 3	important 4	important 5		
Q01_A							Total	
2	Mining & Chem. P	2	1	1			4	
							3.7	
3	Construction & C	2	7	3		1	13	
							12.0	
4	Metal Goods, Eng	4	2		1		7	
							6.5	
5	Elec. Eng., Elec	8	1				9	
							8.3	
6	Other Manuf. Ind	6	6	8			20	
							18.5	
7	Trans., Comms.,	3	8				11	
							10.2	
8	Wholesale & Petr	2	3		1		6	
							5.6	
9	Retail, Rest'nt,	4	2	5	1	1	13	
							12.0	
10	Finance, Insur.,	5	5	1			11	
							10.2	
11	Bus., Services &	1	6	2			9	
							8.3	
12	Health, Educ., &		1	1			2	
							1.9	
13	Pub. Admin., Law			3			3	
							2.8	
Column		37	42	24	3	2	108	
Total		34.3	38.9	22.2	2.8	1.9	100.0	

Chi-Square	Value	DF	Significance
Pearson	64.80149	44	.02223
Likelihood Ratio	66.27007	44	.01658
Mantel-Haenszel test for linear association	1.71842	1	.18990

Minimum Expected Frequency - .037
Cells with Expected Frequency < 5 - 56 OF 60 (93.3%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.77461			.02223 *1
Cramer's V	.38730			.02223 *1
Contingency Coefficient	.61238			.02223 *1
Lambda :				
symmetric	.15584	.06279	2.34589	
with Q01_A dependent	.06818	.06008	1.10158	
with Q04_04 dependent	.27273	.09318	2.57143	
Goodman & Kruskal Tau :				
with Q01_A dependent	.05639	.01218		.01624 *2
with Q04_04 dependent	.19966	.04051		.00018 *2
Uncertainty Coefficient :				
symmetric	.17155	.02889	5.57810	.01658 *3
with Q01_A dependent	.13140	.02293	5.57810	.01658 *3
with Q04_04 dependent	.24704	.03987	5.57810	.01658 *3

- *1 Pearson chi-square probability
- *2 Based on chi-square approximation
- *3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 1

Q01_A Principal Business Activity by Q04_05 Quality Centred

		Q04_05				Page 1 of 1
Count		Very Imp ortant 1	Quite Im portant 2	Neither Unimp. N 3	Very Uni mportant 5	Row Total
Q01_A						
	2	4				4
Mining & Chem. P						3.7
	3	8	4	1		13
Construction & C						12.0
	4	5	2			7
Metal Goods, Eng						6.5
	5	8	1			9
Elec. Eng., Elec						8.3
	6	12	7		1	20
Other Manuf. Ind						18.5
	7	9	2			11
Trans., Comms.,						10.2
	8	4	2			6
Wholesale & Petr						5.6
	9	8	5			13
Retail, Rest'nt,						12.0
	10	9	2			11
Finance, Insur.,						10.2
	11	9				9
Bus., Services &						8.3
	12	2				2
Health, Educ., &						1.9
	13	2		1		3
Pub. Admin., Law						2.8
Column		80	25	2	1	108
Total		74.1	23.1	1.9	.9	100.0

Chi-Square	Value	DF	Significance
Pearson	35.69841	33	.34268
Likelihood Ratio	26.92627	33	.76289
Mantel-Haenszel test for linear association	.47632	1	.49009

Minimum Expected Frequency - .019
Cells with Expected Frequency < 5 - 40 OF 48 (83.3%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.57493			.34268 *1
Cramer's V	.33193			.34268 *1
Contingency Coefficient	.49842			.34268 *1
Lambda :				
symmetric	.00862	.00852	1.00466	
with Q01_A dependent	.01136	.01130	1.00466	
with Q04_05 dependent	.00000	.00000		
Goodman & Kruskal Tau :				
with Q01_A dependent	.02802	.00620		.46821 *2
with Q04_05 dependent	.10497	.03874		.43368 *2
Uncertainty Coefficient :				
symmetric	.08274	.02468	3.13566	.76289 *3
with Q01_A dependent	.05339	.01684	3.13566	.76289 *3
with Q04_05 dependent	.18380	.04600	3.13566	.76289 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 1

Q01_A Principal Business Activity by Q04_06 Employee Centred

		Q04_06				Page 1 of 1
Count		Very Imp ortant	Quite Im portant	Neither Unimp. n	Quite Un important	Row Total
		1	2	3	4	
Q01_A	2	1	3			4
Mining & Chem. P						3.7
	3	6	6	1		13
Construction & C						12.0
	4	5	2			7
Metal Goods, Eng						6.5
	5	5	4			9
Elec. Eng., Elec						8.3
	6	9	9	2		20
Other Manuf. Ind						18.5
	7	7	2	2		11
Trans., Comms.,						10.2
	8	3	2	1		6
Wholesale & Petr						5.6
	9	6	6		1	13
Retail, Rest'nt,						12.0
	10	4	6	1		11
Finance, Insur.,						10.2
	11	3	6			9
Bus., Services &						8.3
	12	1			1	2
Health, Educ., &						1.9
	13	1	2			3
Pub. Admin., Law						2.8
Column		51	48	7	2	108
Total		47.2	44.4	6.5	1.9	100.0

Chi-Square	Value	DF	Significance
Pearson	44.46682	33	.08774
Likelihood Ratio	27.76043	33	.72552
Mantel-Haenszel test for linear association	1.38861	1	.23864

Minimum Expected Frequency - .037
Cells with Expected Frequency < 5 - 40 OF 48 (83.3%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.64166			.08774 *1
Cramer's V	.37046			.08774 *1
Contingency Coefficient	.54005			.08774 *1
Lambda :				
symmetric	.06207	.03418	1.75662	
with Q01_A dependent	.01136	.01130	1.00466	
with Q04_06 dependent	.14035	.08294	1.58712	
Goodman & Kruskal Tau :				
with Q01_A dependent	.02231	.00547		.79111 *2
with Q04_06 dependent	.07765	.03696		.84249 *2
Uncertainty Coefficient :				
symmetric	.07787	.02504	2.95785	.72552 *3
with Q01_A dependent	.05504	.01830	2.95785	.72552 *3
with Q04_06 dependent	.13305	.03970	2.95785	.72552 *3

- *1 Pearson chi-square probability
- *2 Based on chi-square approximation
- *3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 1

Q01_A Principal Business Activity by Q04_07 Customer Focused

		Q04_07			Page 1 of 1
Q01_A	Count	Very Imp ortant 1	Quite Im portant 2	Neither Unimp. N 3	Row Total
Mining & Chem. P	2	3	1		4 3.7
Construction & C	3	11	2		13 12.0
Metal Goods, Eng	4	6	1		7 6.5
Elec. Eng., Elec	5	8	1		9 8.3
Other Manuf. Ind	6	17	2	1	20 18.5
Trans., Comms.,	7	11			11 10.2
Wholesale & Petr	8	6			6 5.6
Retail, Rest'nt,	9	13			13 12.0
Finance, Insur.,	10	10	1		11 10.2
Bus., Services &	11	9			9 8.3
Health, Educ., &	12	2			2 1.9
Pub. Admin., Law	13	2		1	3 2.8
Column		98	8	2	108
Total		90.7	7.4	1.9	100.0

Chi-Square	Value	DF	Significance
Pearson	26.42222	22	.23400
Likelihood Ratio	17.71285	22	.72287
Mantel-Haenszel test for linear association	.37828	1	.53853

Minimum Expected Frequency - .037
Cells with Expected Frequency < 5 - 27 OF 36 (75.0%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.49462			.23400 *1
Cramer's V	.34975			.23400 *1
Contingency Coefficient	.44335			.23400 *1
Lambda :				
symmetric	.00000	.02041	.00000	
with Q01_A dependent	.00000	.02273	.00000	
with Q04_07 dependent	.00000	.00000		
Goodman & Kruskal Tau :				
with Q01_A dependent	.01475	.00356		.74320 *2
with Q04_07 dependent	.08763	.05042		.66056 *2
Uncertainty Coefficient :				
symmetric	.06098	.02306	2.47393	.72287 *3
with Q01_A dependent	.03512	.01407	2.47393	.72287 *3
with Q04_07 dependent	.23111	.06141	2.47393	.72287 *3

*1 Pearson chi-square probability

*2 Based on chi-square approximation

*3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 1

Q01_A Principal Business Activity by Q04_08 Community Centred

		Q04_08					Page 1 of 1
Count		Very Imp ortant	Quite Im portant	Neither Unimp. N	Quite Un important	Very Uni mportant	Row Total
		1	2	3	4	5	
Q01_A							
	2		3			1	4
Mining & Chem. P							3.7
	3	1	4	6	2		13
Construction & C							12.0
	4		1	3	1	2	7
Metal Goods, Eng							6.5
	5	1	3	5			9
Elec. Eng., Elec							8.3
	6		10	7	3		20
Other Manuf. Ind							18.5
	7	2	4	4	1		11
Trans., Comms.,							10.2
	8	1	2	2		1	6
Wholesale & Petr							5.6
	9		6	5	1	1	13
Retail, Rest'nt,							12.0
	10	1	2	3	2	3	11
Finance, Insur.,							10.2
	11		3	3	2	1	9
Bus., Services &							8.3
	12			2			2
Health, Educ., &							1.9
	13	2		1			3
Pub. Admin., Law							2.8
Column		8	38	41	12	9	108
Total		7.4	35.2	38.0	11.1	8.3	100.0

Chi-Square	Value	DF	Significance
Pearson	52.91183	44	.16789
Likelihood Ratio	53.11518	44	.16313
Mantel-Haenszel test for linear association	.09788	1	.75439

Minimum Expected Frequency - .148
Cells with Expected Frequency < 5 - 58 OF 60 (96.7%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.69995			.16789 *1
Cramer's V	.34997			.16789 *1
Contingency Coefficient	.57343			.16789 *1

Lambda :				
symmetric	.08387	.04621	1.74603	
with Q01_A dependent	.05682	.02468	2.28970	
with Q04_08 dependent	.11940	.10100	1.11578	
Goodman & Kruskal Tau :				
with Q01_A dependent	.03828	.00972		.42774 *2
with Q04_08 dependent	.10157	.02520		.49422 *2
Uncertainty Coefficient :				
symmetric	.13242	.02330	5.27608	.16313 *3
with Q01_A dependent	.10532	.01919	5.27608	.16313 *3
with Q04_08 dependent	.17829	.03008	5.27608	.16313 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 2

Q02 Geographic Location by Q04_01 Market Responsive

Q02	Count	Q04_01					Row Total
		Very ortant 1	Imp ortant 2	Neither Unimp. 3	Quite N important 4	Un Very Uni important 5	
Scotland	1	7	1				8 7.4
Northern Ireland	2	2					2 1.9
Wales	3	3	1				4 3.7
North East Engla	4	6	1		1		8 7.4
North West	5	3	3	1			7 6.5
Midlands	6	13	1	1			15 13.9
East Anglia	7	6					6 5.6
South East	8	20	3				23 21.3
London	9	21	4	1	1	1	28 25.9
South West	10	6	1				7 6.5
Column Total		87 80.6	15 13.9	3 2.8	2 1.9	1 .9	108 100.0

Chi-Square	Value	DF	Significance
Pearson	23.68290	36	.94291
Likelihood Ratio	21.56084	36	.97271
Mantel-Haenszel test for linear association	.06542	1	.79812

Minimum Expected Frequency - .019
Cells with Expected Frequency < 5 - 43 OF 50 (86.0%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.46828			.94291 *1
Cramer's V	.23414			.94291 *1
Contingency Coefficient	.42408			.94291 *1
Lambda :				
symmetric	.00000	.01980	.00000	
with Q02 dependent	.00000	.02500	.00000	
with Q04_01 dependent	.00000	.00000		
Goodman & Kruskal Tau :				
with Q02 dependent	.02649	.00707		.90335 *2
with Q04_01 dependent	.07884	.04688		.57637 *2
Uncertainty Coefficient :				
symmetric	.07352	.02464	2.77925	.97271 *3
with Q02 dependent	.04868	.01733	2.77925	.97271 *3
with Q04_01 dependent	.15008	.04364	2.77925	.97271 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 2

Q02 Geographic Location by Q04_02 Innovative

		Q04_02			Page 1 of 1
Q02	Count	Very Important 1	Quite Important 2	Neither Important 3	Row Total
Scotland	1	3	2	3	8 7.4
Northern Ireland	2	1	1		2 1.9
Wales	3	2	1	1	4 3.7
North East Engla	4	2	4	2	8 7.4
North West	5	2	2	3	7 6.5
Midlands	6	8	6	1	15 13.9
East Anglia	7	1	4	1	6 5.6
South East	8	12	7	4	23 21.3
London	9	12	12	4	28 25.9
South West	10	4	2	1	7 6.5
Column Total		47	41	20	108
		43.5	38.0	18.5	100.0

Chi-Square	Value	DF	Significance
Pearson	12.15595	18	.83908
Likelihood Ratio	12.17802	18	.83791
Mantel-Haenszel test for linear association	1.66263	1	.19725

Minimum Expected Frequency = .370
Cells with Expected Frequency < 5 = 23 OF 30 (76.7%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.33549			.83908 *1
Cramer's V	.23723			.83908 *1
Contingency Coefficient	.31807			.83908 *1
Lambda :				
symmetric	.04255	.04790	.86905	
with Q02 dependent	.00000	.07071	.00000	
with Q04_02 dependent	.09836	.06227	1.51587	
Goodman & Kruskal Tau :				
with Q02 dependent	.01179	.00775		.87876 *2
with Q04_02 dependent	.05322	.03064		.87712 *2
Uncertainty Coefficient :				
symmetric	.03646	.01973	1.83521	.83791 *3
with Q02 dependent	.02750	.01488	1.83521	.83791 *3
with Q04_02 dependent	.05410	.02932	1.83521	.83791 *3

- *1 Pearson chi-square probability
- *2 Based on chi-square approximation
- *3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 2

Q02 Geographic Location by Q04_03 Goal Orientated

Page 1 of 1

Q02	Count	Q04_03				Row Total
		Very Imp ortant 1	Quite Im portant 2	Neither Unimp. N 3	Quite Un importan 4	
Scotland	1	5	2	1		8 7.4
Northern Ireland	2	1		1		2 1.9
Wales	3	3	1			4 3.7
North East Engla	4	5	1	1	1	8 7.4
North West	5	4	3			7 6.5
Midlands	6	12	2	1		15 13.9
East Anglia	7	4	2			6 5.6
South East	8	16	6	1		23 21.3
London	9	23	4	1		28 25.9
South West	10	5	2			7 6.5
Column Total		78 72.2	23 21.3	6 5.6	1 .9	108 100.0

Chi-Square	Value	DF	Significance
Pearson	27.99697	27	.41113
Likelihood Ratio	17.41291	27	.92044
Mantel-Haenszel test for linear association	3.29674	1	.06942

Minimum Expected Frequency - .019
Cells with Expected Frequency < 5 - 32 OF 40 (80.0%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.50915			.41113 *1
Cramer's V	.29396			.41113 *1
Contingency Coefficient	.45372			.41113 *1

Lambda :				
symmetric	.02727	.03217	.83473	
with Q02 dependent	.03750	.04422	.83473	
with Q04_03 dependent	.00000	.00000		
Goodman & Kruskal Tau :				
with Q02 dependent	.02187	.00808		.78354 *2
with Q04_03 dependent	.05161	.03645		.94127 *2
Uncertainty Coefficient :				
symmetric	.05720	.02632	2.09007	.92044 *3
with Q02 dependent	.03932	.01859	2.09007	.92044 *3
with Q04_03 dependent	.10492	.04544	2.09007	.92044 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

Q02 Geographic Location by Q04_04 Technologically Orientated

		Q04_04					Page 1 of 1
Q02	Count	Very Important	Quite Important	Neither Unimp. N	Quite Unimportant	Very Unimportant	Row Total
		1	2	3	4	5	
	1	3	3	2			8
Scotland							7.4
	2		2				2
Northern Ireland							1.9
	3	3		1			4
Wales							3.7
	4	2	3	3			8
North East Engla							7.4
	5		2	5			7
North West							6.5
	6	7	5	3			15
Midlands							13.9
	7	3	2	1			6
East Anglia							5.6
	8	8	7	5	2	1	23
South East							21.3
	9	8	15	3	1	1	28
London							25.9
	10	3	3	1			7
South West							6.5
Column		37	42	24	3	2	108
Total		34.3	38.9	22.2	2.8	1.9	100.0

Chi-Square	Value	DF	Significance
Pearson	30.37935	36	.73259
Likelihood Ratio	32.89249	36	.61718
Mantel-Haenszel test for linear association	.01256	1	.91078

Minimum Expected Frequency - .037
Cells with Expected Frequency < 5 - 42 OF 50 (84.0%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.53037			.73259 *1
Cramer's V	.26518			.73259 *1
Contingency Coefficient	.46855			.73259 *1
Lambda :				
symmetric	.08904	.06854	1.25421	
with Q02 dependent	.03750	.06604	.55789	
with Q04_04 dependent	.15152	.10256	1.37265	
Goodman & Kruskal Tau :				
with Q02 dependent	.03541	.01439		.55935 *2
with Q04_04 dependent	.09781	.03042		.23141 *2
Uncertainty Coefficient :				
symmetric	.09251	.02321	3.81058	.61718 *3
with Q02 dependent	.07427	.01888	3.81058	.61718 *3
with Q04_04 dependent	.12262	.03063	3.81058	.61718 *3

- *1 Pearson chi-square probability
- *2 Based on chi-square approximation
- *3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 2

Q02 Geographic Location by Q04_05 Quality Centred

Page 1 of 1

Count		Q04_05				Row Total
		Very Imp ortant 1	Quite Im portant 2	Neither Unimp. N 3	Very Uni mportant 5	
Q02						
	1	3	5			8
Scotland						7.4
	2	2				2
Northern Ireland						1.9
	3	3	1			4
Wales						3.7
	4	6	2			8
North East Engla						7.4
	5	3	3	1		7
North West						6.5
	6	12	2		1	15
Midlands						13.9
	7	4	2			6
East Anglia						5.6
	8	20	3			23
South East						21.3
	9	21	6	1		28
London						25.9
	10	6	1			7
South West						6.5
Column Total		80 74.1	25 23.1	2 1.9	1 .9	108 100.0

Chi-Square	Value	DF	Significance
Pearson	26.34159	27	.49971
Likelihood Ratio	21.10413	27	.78139
Mantel-Haenszel test for linear association	2.57404	1	.10863

Minimum Expected Frequency - .019
Cells with Expected Frequency < 5 - 31 OF 40 (77.5%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.49387			.49971 *1
Cramer's V	.28513			.49971 *1
Contingency Coefficient	.44281			.49971 *1
Lambda :				
symmetric	.02778	.03009	.90798	
with Q02 dependent	.01250	.02151	.57824	
with Q04_05 dependent	.07143	.09734	.70875	
Goodman & Kruskal Tau :				
with Q02 dependent	.02927	.00893		.40125 *2
with Q04_05 dependent	.11136	.06006		.12095 *2
Uncertainty Coefficient :				
symmetric	.07162	.02832	2.42584	.78139 *3
with Q02 dependent	.04765	.01951	2.42584	.78139 *3
with Q04_05 dependent	.14406	.05236	2.42584	.78139 *3

- *1 Pearson chi-square probability
- *2 Based on chi-square approximation
- *3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

Q02 Geographic Location by Q04_06 Employee Centred

		Q04_06				Page 1 of 1
Count		Very Imp ortant 1	Quite Im portant 2	Neither Unimp. n 3	Quite Un important 4	Row Total
Q02						
	1	4	4			8
Scotland						7.4
	2	1		1		2
Northern Ireland						1.9
	3	3	1			4
Wales						3.7
	4	5	1	1	1	8
North East Engla						7.4
	5	1	6			7
North West						6.5
	6	11	3	1		15
Midlands						13.9
	7	2	3	1		6
East Anglia						5.6
	8	8	13	1	1	23
South East						21.3
	9	11	15	2		28
London						25.9
	10	5	2			7
South West						6.5
Column		51	48	7	2	108
Total		47.2	44.4	6.5	1.9	100.0

Chi-Square	Value	DF	Significance
Pearson	32.83441	27	.20259
Likelihood Ratio	30.84615	27	.27750
Mantel-Haenszel test for linear association	.10626	1	.74445

Minimum Expected Frequency - .037
Cells with Expected Frequency < 5 - 34 OF 40 (85.0%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.55138			.20259 *1
Cramer's V	.31834			.20259 *1
Contingency Coefficient	.48285			.20259 *1
Lambda :				
symmetric	.11679	.07028	1.58712	
with Q02 dependent	.01250	.05957	.20856	
with Q04_06 dependent	.26316	.11567	1.98825	
Goodman & Kruskal Tau :				
with Q02 dependent	.03087	.01046		.32651 *2
with Q04_06 dependent	.13376	.04897		.02655 *2
Uncertainty Coefficient :				
symmetric	.09469	.02818	3.22414	.27750 *3
with Q02 dependent	.06965	.02114	3.22414	.27750 *3
with Q04_06 dependent	.14784	.04291	3.22414	.27750 *3

*1 Pearson chi-square probability

*2 Based on chi-square approximation

*3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 2

Q02 Geographic Location by Q04_07 Customer Focused

Page 1 of 1

Count		Q04_07			Row Total
		Very Imp ortant 1	Quite Im portant 2	Neither Unimp. N 3	
Q02					
	1	6	2		8
Scotland					7.4
	2	2			2
Northern Ireland					1.9
	3	4			4
Wales					3.7
	4	8			8
North East Engla					7.4
	5	5	2		7
North West					6.5
	6	14		1	15
Midlands					13.9
	7	6			6
East Anglia					5.6
	8	22	1		23
South East					21.3
	9	25	2	1	28
London					25.9
	10	6	1		7
South West					6.5
Column		98	8	2	108
Total		90.7	7.4	1.9	100.0

Chi-Square	Value	DF	Significance
Pearson	15.23035	18	.64609
Likelihood Ratio	15.06646	18	.65740
Mantel-Haenszel test for linear association	.09271	1	.76076

Minimum Expected Frequency - .037
Cells with Expected Frequency < 5 - 22 OF 30 (73.3%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.37553			.64609 *1
Cramer's V	.26554			.64609 *1
Contingency Coefficient	.35156			.64609 *1
Lambda :				
symmetric	.00000	.02722	.00000	
with Q02 dependent	.00000	.03062	.00000	
with Q04_07 dependent	.00000	.00000		
Goodman & Kruskal Tau :				
with Q02 dependent	.01568	.00682		.65542 *2
with Q04_07 dependent	.08638	.05896		.42408 *2
Uncertainty Coefficient :				
symmetric	.05800	.02245	2.42383	.65740 *3
with Q02 dependent	.03402	.01392	2.42383	.65740 *3
with Q04_07 dependent	.19658	.05942	2.42383	.65740 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

Q02 Geographic Location by Q04_08 Community Centred

Page 1 of 1

		Q04_08					Row Total
Q02	Count	Very Imp ortant	Quite Im portant	Neither Unimp. N	Quite Un important	Very Uni mportant	
		1	2	3	4	5	
	1		3	4	1		8
Scotland							7.4
	2		1		1		2
Northern Ireland							1.9
	3		2	1		1	4
Wales							3.7
	4		4	1	3		8
North East Engla							7.4
	5		2	2	1	2	7
North West							6.5
	6	2	3	8	2		15
Midlands							13.9
	7	1	2	3			6
East Anglia							5.6
	8	3	9	9	1	1	23
South East							21.3
	9	2	9	9	3	5	28
London							25.9
	10		3	4			7
South West							6.5
Column		8	38	41	12	9	108
Total		7.4	35.2	38.0	11.1	8.3	100.0

Chi-Square	Value	DF	Significance
Pearson	34.99757	36	.51611
Likelihood Ratio	38.60176	36	.35281
Mantel-Haenszel test for linear association	.22661	1	.63405

Minimum Expected Frequency - .148
Cells with Expected Frequency < 5 - 44 OF 50 (88.0%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.56926			.51611 *1
Cramer's V	.28463			.51611 *1
Contingency Coefficient	.49471			.51611 *1
Lambda :				
symmetric	.04082	.06516	.61344	
with Q02 dependent	.01250	.08516	.14588	
with Q04_08 dependent	.07463	.10050	.71598	
Goodman & Kruskal Tau :				
with Q02 dependent	.03735	.01307		.47002 *2
with Q04_08 dependent	.06827	.02237		.78094 *2
Uncertainty Coefficient :				
symmetric	.10422	.02290	4.28036	.35281 *3
with Q02 dependent	.08716	.01962	4.28036	.35281 *3
with Q04_08 dependent	.12957	.02797	4.28036	.35281 *3

- *1 Pearson chi-square probability
- *2 Based on chi-square approximation
- *3 Likelihood ratio chi-square probability

Number of Missing Observations: 4

TABULATION 3

Q03 Parent Location by Q04_01 Market Responsive

Page 1 of 1

Count		Q04_01				Row Total
		Very Important 1	Quite Important 2	Neither Important 3	Quite Unimportant 4	
Q03						
	1	29	5			34
United Kingdom						43.0
	2	20	5	1	1	27
Europe						34.2
	3	3	1			4
Asia						5.1
	5	8				8
North America						10.1
	6	1				1
South America						1.3
	7	4				4
Australia & New						5.1
	11			1		1
						1.3
Column		65	11	2	1	79
Total		82.3	13.9	2.5	1.3	100.0

Chi-Square	Value	DF	Significance
Pearson	45.21813	18	.00039
Likelihood Ratio	17.23095	18	.50728
Mantel-Haenszel test for linear association	.67509	1	.41128

Minimum Expected Frequency - .013
Cells with Expected Frequency < 5 - 25 OF 28 (89.3%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.75656			.00039 *1
Cramer's V	.43680			.00039 *1
Contingency Coefficient	.60334			.00039 *1
Lambda :				
symmetric	.05085	.02727	1.76591	
with Q03 dependent	.04444	.03072	1.43246	
with Q04_01 dependent	.07143	.06883	1.00639	
Goodman & Kruskal Tau :				
with Q03 dependent	.03733	.01206		.49103 *2
with Q04_01 dependent	.11325	.02068		.08884 *2
Uncertainty Coefficient :				
symmetric	.11141	.04502	2.19431	.50728 *3
with Q03 dependent	.07935	.03394	2.19431	.50728 *3
with Q04_01 dependent	.18694	.07013	2.19431	.50728 *3

*1 Pearson chi-square probability

*2 Based on chi-square approximation

*3 Likelihood ratio chi-square probability

Number of Missing Observations: 33

TABULATION 3

Q03 Parent Location by Q04_02 Innovative

Page 1 of 1

Count		Q04_02			Row Total
		Very Imp ortant 1	Quite Im portant 2	Neither Unimp. N 3	
Q03					
	1	17	12	5	34
United Kingdom					43.0
	2	11	11	5	27
Europe					34.2
	3	3		1	4
Asia					5.1
	5	6	2		8
North America					10.1
	6	1			1
South America					1.3
	7	2	2		4
Australia & New					5.1
	11			1	1
					1.3
Column Total		40 50.6	27 34.2	12 15.2	79 100.0

Chi-Square	Value	DF	Significance
Pearson	12.97874	12	.37059
Likelihood Ratio	14.50369	12	.26971
Mantel-Haenszel test for linear association	.07326	1	.78665

Minimum Expected Frequency - .152
Cells with Expected Frequency < 5 - 16 OF 21 (76.2%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.40532			.37059 *1
Cramer's V	.28661			.37059 *1
Contingency Coefficient	.37564			.37059 *1
Lambda :				
symmetric	.01190	.01173	1.00639	
with Q03 dependent	.00000	.00000		
with Q04_02 dependent	.02564	.02531	1.00639	
Goodman & Kruskal Tau :				
with Q03 dependent	.01564	.01180		.83567 *2
with Q04_02 dependent	.07455	.02520		.47587 *2
Uncertainty Coefficient :				
symmetric	.07739	.02491	2.83403	.26971 *3
with Q03 dependent	.06679	.02074	2.83403	.26971 *3
with Q04_02 dependent	.09200	.03158	2.83403	.26971 *3

*1 Pearson chi-square probability

*2 Based on chi-square approximation

*3 Likelihood ratio chi-square probability

Number of Missing Observations: 33

TABULATION 3

Q03: Parent Location by Q04_03 Goal Orientated

Page 1 of 1

Q03	Count	Q04_03				Row Total
		Very Important 1	Quite Important 2	Neither Important 3	Quite Unimportant 4	
United Kingdom	1	27	6	1		34
Europe	2	21	5		1	27
Asia	3	1	3			4
North America	5	7	1			8
South America	6	1				1
Australia & New	7	3	1			4
	11			1		1
Column Total		60	16	2	1	79
		75.9	20.3	2.5	1.3	100.0

Chi-Square	Value	DF	Significance
Pearson	49.75768	18	.00008
Likelihood Ratio	18.20322	18	.44234
Mantel-Haenszel test for linear association	1.71922	1	.18979

Minimum Expected Frequency - .013
Cells with Expected Frequency < 5 - 23 OF 28 (82.1%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.79363			.00008 *1
Cramer's V	.45820			.00008 *1
Contingency Coefficient	.62165			.00008 *1
Lambda :				
symmetric	.06250	.03569	1.66127	
with Q03 dependent	.02222	.02197	1.00639	
with Q04_03 dependent	.15789	.10800	1.35719	
Goodman & Kruskal Tau :				
with Q03 dependent	.03523	.01484		.55863 *2
with Q04_03 dependent	.13949	.06458		.01844 *2
Uncertainty Coefficient :				
symmetric	.11212	.05140	1.99896	.44234 *3
with Q03 dependent	.08383	.03947	1.99896	.44234 *3
with Q04_03 dependent	.16924	.07575	1.99896	.44234 *3

*1 Pearson chi-square probability

*2 Based on chi-square approximation

*3 Likelihood ratio chi-square probability

Number of Missing Observations: 33

Q03 Parent Location by Q04_04 Technologically Orientated

Page 1 of 1

Count		Q04_04					Row Total
		Very ortant 1	Imp portant 2	Neither Unimp. 3	Quite Un important 4	Very Uni important 5	
Q03	1	9	16	7		2	34 43.0
	United Kingdom						
	2	10	11	5	1		27 34.2
	Europe						
	3	3	1				4 5.1
	Asia						
	5	5	1	2			8 10.1
	North America						
	6		1				1 1.3
	South America						
	7	2	2				4 5.1
	Australia & New						
	11			1			1 1.3
Column Total		29 36.7	32 40.5	15 19.0	1 1.3	2 2.5	79 100.0

Chi-Square	Value	DF	Significance
Pearson	18.40054	24	.78316
Likelihood Ratio	20.22074	24	.68416
Mantel-Haenszel test for linear association	.89314	1	.34463

Minimum Expected Frequency - .013
Cells with Expected Frequency < 5 - 29 OF 35 (82.9%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.48262			.78316 *1
Cramer's V	.24131			.78316 *1
Contingency Coefficient	.43464			.78316 *1

Lambda :				
symmetric	.09783	.05990	1.54406	
with Q03 dependent	.04444	.09715	.44778	
with Q04_04 dependent	.14894	.07602	1.84596	
Goodman & Kruskal Tau :				
with Q03 dependent	.05041	.01644		.48508 *2
with Q04_04 dependent	.08288	.03068		.36034 *2
Uncertainty Coefficient :				
symmetric	.09951	.03017	3.01796	.68416 *3
with Q03 dependent	.09312	.02818	3.01796	.68416 *3
with Q04_04 dependent	.10685	.03328	3.01796	.68416 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 33

Q03 Parent Location by Q04_05 Quality Centred

Page 1 of 1

Count		Q04_05			Row Total
		Very Imp ortant 1	Quite Im portant 2	Very Uni mportant 5	
Q03					
	1	25	9		34
United Kingdom					43.0
	2	18	9		27
Europe					34.2
	3	4			4
Asia					5.1
	5	7	1		8
North America					10.1
	6	1			1
South America					1.3
	7	3	1		4
Australia & New					5.1
	11			1	1
					1.3
Column Total		58 73.4	20 25.3	1 1.3	79 100.0

Chi-Square	Value	DF	Significance
Pearson	82.34208	12	.00000
Likelihood Ratio	15.33463	12	.22364
Mantel-Haenszel test for linear association	6.55212	1	.01048

Minimum Expected Frequency - .013
Cells with Expected Frequency < 5 - 16 OF 21 (76.2%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	1.02093			.00000 *1
Cramer's V	.72191			.00000 *1
Contingency Coefficient	.71439			.00000 *1
Lambda :				
symmetric	.03030	.02969	1.00639	
with Q03 dependent	.02222	.02197	1.00639	
with Q04_05 dependent	.04762	.04647	1.00639	
Goodman & Kruskal Tau :				
with Q03 dependent	.03254	.00976		.22915 *2
with Q04_05 dependent	.09114	.02558		.28702 *2
Uncertainty Coefficient :				
symmetric	.09684	.05266	1.69728	.22364 *3
with Q03 dependent	.07062	.03953	1.69728	.22364 *3
with Q04_05 dependent	.15407	.07969	1.69728	.22364 *3

*1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 33

Q03 Parent Location by Q04_06 Employee Centred

		Q04_06				Page 1 of 1
Count		Very Imp ortant	Quite Im portant	Neither Unimp. n	Quite Un important	Row Total
		1	2	3	4	
Q03						
	1	19	14		1	34
United Kingdom						43.0
	2	12	12	3		27
Europe						34.2
	3	1	3			4
Asia						5.1
	5	6	2			8
North America						10.1
	6	1				1
South America						1.3
	7	1	3			4
Australia & New						5.1
	11			1		1
						1.3
Column		40	34	4	1	79
Total		50.6	43.0	5.1	1.3	100.0

Chi-Square	Value	DF	Significance
Pearson	30.41432	18	.03361
Likelihood Ratio	20.26658	18	.31801
Mantel-Haenszel test for linear association	.72655	1	.39400

Minimum Expected Frequency = .013
Cells with Expected Frequency < 5 = 24 OF 28 (85.7%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.62048			.03361 *1
Cramer's V	.35823			.03361 *1
Contingency Coefficient	.52723			.03361 *1
Lambda :				
symmetric	.09524	.03721	2.39154	
with Q03 dependent	.06667	.03718	1.76591	
with Q04_06 dependent	.12821	.07182	1.69676	
Goodman & Kruskal Tau :				
with Q03 dependent	.04909	.01228		.19162 *2
with Q04_06 dependent	.09819	.04199		.19148 *2
Uncertainty Coefficient :				
symmetric	.11211	.03939	2.58067	.31801 *3
with Q03 dependent	.09333	.03365	2.58067	.31801 *3
with Q04_06 dependent	.14037	.04855	2.58067	.31801 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 33

		Q04_07			Row Total
Count		Very Imp ortant	Quite Im portant	Neither Unimp. N	
		1	2	3	
Q03					
	1	31	3		34
United Kingdom					43.0
	2	27			27
Europe					34.2
	3	3	1		4
Asia					5.1
	5	6	2		8
North America					10.1
	6	1			1
South America					1.3
	7	3	1		4
Australia & New					5.1
	11			1	1
					1.3
Column		71	7	1	79
Total		89.9	8.9	1.3	100.0

Chi-Square	Value	DF	Significance
Pearson	86.89158	12	.00000
Likelihood Ratio	19.54112	12	.07628
Mantel-Haenszel test for linear association	15.03076	1	.00011

Minimum Expected Frequency - .013
Cells with Expected Frequency < 5 - 18 OF 21 (85.7%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	1.04876			.00000 *1
Cramer's V	.74158			.00000 *1
Contingency Coefficient	.72373			.00000 *1

Lambda :				
symmetric	.03774	.03672	1.00639	
with Q03 dependent	.02222	.02197	1.00639	
with Q04_07 dependent	.12500	.11693	1.00639	
Goodman & Kruskal Tau :				
with Q03 dependent	.04859	.00989		.03001 *2
with Q04_07 dependent	.21202	.05343		.00094 *2
Uncertainty Coefficient :				
symmetric	.14213	.06155	2.04150	.07628 *3
with Q03 dependent	.08999	.04191	2.04150	.07628 *3
with Q04_07 dependent	.33791	.11632	2.04150	.07628 *3

*1 Pearson chi-square probability

*2 Based on chi-square approximation

*3 Likelihood ratio chi-square probability

Number of Missing Observations: 33

TABULATION 3

Q03 Parent Location by Q04_08 Community Centred

Page 1 of 1

Count		Q04_08					Row Total
Q03		Very ortant	Imp portant	Im Unimp. N	Neither Un important	Quite important	
		1	2	3	4	5	
Q03	1 United Kingdom	2	11	15	4	2	34 43.0
	2 Europe	1	9	11	3	3	27 34.2
	3 Asia	1	1	1	1		4 5.1
	5 North America	1	5	2			8 10.1
	6 South America		1				1 1.3
	7 Australia & New		1	2		1	4 5.1
	11			1			1 1.3
Column Total		5 6.3	28 35.4	32 40.5	8 10.1	6 7.6	79 100.0

Chi-Square	Value	DF	Significance
Pearson	14.75045	24	.92785
Likelihood Ratio	15.63355	24	.90085
Mantel-Haenszel test for linear association	.27019	1	.60320

Minimum Expected Frequency - .063
Cells with Expected Frequency < 5 - 31 OF 35 (88.6%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.43210			.92785 *1
Cramer's V	.21605			.92785 *1
Contingency Coefficient	.39666			.92785 *1
Lambda :				
symmetric	.05435	.04039	1.30483	
with Q03 dependent	.02222	.04914	.44778	
with Q04_08 dependent	.08511	.06436	1.27792	
Goodman & Kruskal Tau :				
with Q03 dependent	.02266	.01640		.99156 *2
with Q04_08 dependent	.05225	.02399		.87689 *2
Uncertainty Coefficient :				
symmetric	.07301	.02712	2.52827	.90085 *3
with Q03 dependent	.07199	.02620	2.52827	.90085 *3
with Q04_08 dependent	.07406	.02846	2.52827	.90085 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 33

TABULATION 4

S01 Principal Business Activity by S04_01 Market Responsive

Page 1 of 1

Count	S04_01					Row Total
	Very ortant 1	Imp portant 2	Quite Unimp. N 3	Neither Quite importan 4	Un Very Uni mportant 5	
S01						
1 Agriculture, For		2				2 .6
2 Mining Minerals,	5	3	1		1	10 3.0
3 Construction & C	9	6				15 4.5
4 Metal Goods, Eng	4	4				8 2.4
5 Electrical Engin	19	2			1	22 6.6
6 Other Manufactur	50	14	2		1	67 20.2
7 Transport, Commu	32	8				40 12.0
8 Wholesale & Petr	7	1	1			9 2.7
9 Retail, Restaura	16					16 4.8
10 Finance, Insuran	39	13	3	1		56 16.9
11 Business Service	12	6	2			20 6.0
12 Health , Educati	19	11	10			40 12.0
13 Public Admin., L	13	7	4		3	27 8.1
Column Total	225 67.8	77 23.2	23 6.9	1 .3	6 1.8	332 100.0

Chi-Square	Value	DF	Significance
Pearson	85.44462	48	.00071
Likelihood Ratio	80.29673	48	.00239
Mantel-Haenszel test for linear association	7.36401	1	.00665

Minimum Expected Frequency - .006
Cells with Expected Frequency < 5 - 47 OF 65 (72.3%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.50731			.00071 *1
Cramer's V	.25365			.00071 *1
Contingency Coefficient	.45242			.00071 *1
Lambda :				
symmetric	.03495	.01129	3.02318	
with S01 dependent	.04151	.01523	2.69696	
with S04_01 dependent	.01869	.01309	1.41849	
Goodman & Kruskal Tau :				
with S01 dependent	.02491	.00649		.00002 *2
with S04_01 dependent	.08925	.01999		.00000 *2
Uncertainty Coefficient :				
symmetric	.07621	.01337	5.40411	.00239 *3
with S01 dependent	.05266	.00961	5.40411	.00239 *3
with S04_01 dependent	.13780	.02237	5.40411	.00239 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 0

TABULATION 4

S01 Principal Business Activity by S04_02 Innovative

Page 1 of 1

S01	Count	S04_02					Row Total
		Very Imp ortant 1	Quite Im portant 2	Neither Unimp. N 3	Quite Un important 4	Very Uni mportant 5	
	1	1	1				2
Agriculture, For							.6
	2	3	6	1			10
Mining Minerals,							3.0
	3	5	6	3	1		15
Construction & C							4.5
	4	5	2	1			8
Metal Goods, Eng							2.4
	5	14	5	1	2		22
Electrical Engin							6.6
	6	31	29	5	2		67
Other Manufactur							20.2
	7	22	15	3			40
Transport, Commu							12.0
	8	5	2	2			9
Wholesale & Petr							2.7
	9	10	5	1			16
Retail, Restaura							4.8
	10	22	24	9	1		56
Finance, Insuran							16.9
	11	9	8	2		1	20
Business Service							6.0
	12	15	17	8			40
Health , Educati							12.0
	13	6	16	4	1		27
Public Admin., L							8.1
Column		148	136	40	7	1	332
Total		44.6	41.0	12.0	2.1	.3	100.0

Chi-Square	Value	DF	Significance
Pearson	50.44841	48	.37692
Likelihood Ratio	41.39239	48	.73864
Mantel-Haenszel test for linear association	2.61378	1	.10594

Minimum Expected Frequency = .006
Cells with Expected Frequency < 5 = 45 OF 65 (69.2%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.38981			.37692 *1
Cramer's V	.19491			.37692 *1
Contingency Coefficient	.36319			.37692 *1
Lambda :				
symmetric	.05122	.02542	1.96211	
with S01 dependent	.01887	.01629	1.14936	
with S04_02 dependent	.09783	.05655	1.64989	
Goodman & Kruskal Tau :				
with S01 dependent	.01280	.00337		.36208 *2
with S04_02 dependent	.04045	.01568		.26948 *2
Uncertainty Coefficient :				
symmetric	.03693	.01061	3.41811	.73864 *3
with S01 dependent	.02715	.00791	3.41811	.73864 *3
with S04_02 dependent	.05774	.01618	3.41811	.73864 *3

- *1 Pearson chi-square probability
- *2 Based on chi-square approximation
- *3 Likelihood ratio chi-square probability

Number of Missing Observations: 0

TABULATION 4

S01 Principal Business Activity by S04_03 Results & Goal Orientated

		S04_03				Page 1 of 1
S01	Count	Very Imp ortant	Quite Im portant	Neither Unimp. N	Quite Un important	Row Total
		1	2	3	4	
1		1	1			2
Agriculture, For						.6
2		8	2			10
Mining Minerals,						3.0
3		10	5			15
Construction & C						4.5
4		6	2			8
Metal Goods, Eng						2.4
5		17	3	2		22
Electrical Engin						6.6
6		42	18	5	2	67
Other Manufactur						20.2
7		26	13	1		40
Transport, Commu						12.0
8		6	2	1		9
Wholesale & Petr						2.7
9		11	4	1		16
Retail, Restaura						4.8
10		43	11	1	1	56
Finance, Insuran						16.9
11		13	3	3	1	20
Business Service						6.0
12		23	12	5		40
Health , Educati						12.0
13		13	12	2		27
Public Admin., L						8.1
Column		219	88	21	4	332
Total		66.0	26.5	6.3	1.2	100.0

Chi-Square	Value	DF	Significance
Pearson	29.18714	36	.78231
Likelihood Ratio	31.73747	36	.67155
Mantel-Haenszel test for linear association	2.49259	1	.11438

Minimum Expected Frequency - .024
Cells with Expected Frequency < 5 - 33 OF 52 (63.5%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.29650			.78231 *1
Cramer's V	.17119			.78231 *1
Contingency Coefficient	.28427			.78231 *1
Lambda :				
symmetric	.00265	.02436	.10847	
with S01 dependent	.00377	.03473	.10847	
with S04_03 dependent	.00000	.00000		
Goodman & Kruskal Tau :				
with S01 dependent	.00952	.00330		.38577 *2
with S04_03 dependent	.03335	.01590		.60649 *2
Uncertainty Coefficient :				
symmetric	.03034	.00894	3.32842	.67155 *3
with S01 dependent	.02082	.00624	3.32842	.67155 *3
with S04_03 dependent	.05595	.01593	3.32842	.67155 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 0

TABULATION 4

S01 Principal Business Activity by S04_04 Technologically Orientated

		S04_04					Page 1 of 1
Count		Very Imp ortant 1	Quite Im portant 2	Neither Unimp. N 3	Quite Un important 4	Very Uni important 5	Row Total
S01							
	1		2				2
	Agriculture, For						.6
	2	6	3	1			10
	Mining Minerals,						3.0
	3	8	4	2	1		15
	Construction & C						4.5
	4	6	1	1			8
	Metal Goods, Eng						2.4
	5	20		1		1	22
	Electrical Engin						6.6
	6	32	28	5	2		67
	Other Manufactur						20.2
	7	22	18				40
	Transport, Commu						12.0
	8	3	4	2			9
	Wholesale & Petr						2.7
	9	6	8	1		1	16
	Retail, Restaura						4.8
	10	29	23	4			56
	Finance, Insuran						16.9
	11	8	10	2			20
	Business Service						6.0
	12	16	18	4	2		40
	Health , Educati						12.0
	13	14	8	4		1	27
	Public Admin., L						8.1
Column		170	127	27	5	3	332
Total		51.2	38.3	8.1	1.5	.9	100.0

Chi-Square	Value	DF	Significance
Pearson	59.12150	48	.13039
Likelihood Ratio	66.95353	48	.03655
Mantel-Haenszel test for linear association	2.73247	1	.09833

Minimum Expected Frequency - .018
Cells with Expected Frequency < 5 - 45 OF 65 (69.2%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.42199			.13039 *1
Cramer's V	.21100			.13039 *1
Contingency Coefficient	.38879			.13039 *1
Lambda :				
symmetric	.02342	.02013	1.14936	
with S01 dependent	.00377	.00377	1.00151	
with S04_04 dependent	.05556	.05195	1.04092	
Goodman & Kruskal Tau :				
with S01 dependent	.01472	.00245		.14330 *2
with S04_04 dependent	.06691	.01325		.00033 *2
Uncertainty Coefficient :				
symmetric	.06081	.01000	5.79063	.03655 *3
with S01 dependent	.04391	.00745	5.79063	.03655 *3
with S04_04 dependent	.09885	.01538	5.79063	.03655 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 0

TABULATION 4

S01 Principal Business Activity by S04_05 Quality Centred

Page 1 of 1

S01	Count	S04_05					Row Total
		Very Imp ortant	Quite Im portant	Neither Unimp. N	Quite Un important	Very Uni important	
		1	2	3	4	5	
	1	2					2
Agriculture, For							.6
	2	7	2	1			10
Mining Minerals,							3.0
	3	9	3	2	1		15
Construction & C							4.5
	4	8					8
Metal Goods, Eng							2.4
	5	16	5	1			22
Electrical Engin							6.6
	6	51	12	2	1	1	67
Other Manufactur							20.2
	7	31	7	1		1	40
Transport, Commu							12.0
	8	6	2	1			9
Wholesale & Petr							2.7
	9	15	1				16
Retail, Restaura							4.8
	10	38	16	2			56
Finance, Insuran							16.9
	11	9	5	6			20
Business Service							6.0
	12	25	12	3			40
Health , Educati							12.0
	13	18	8	1			27
Public Admin., L							8.1
Column		235	73	20	2	2	332
Total		70.8	22.0	6.0	.6	.6	100.0

Chi-Square	Value	DF	Significance
Pearson	55.27689	48	.21903
Likelihood Ratio	45.42129	48	.57912
Mantel-Haenszel test for linear association	.88448	1	.34698

Minimum Expected Frequency - .012
Cells with Expected Frequency < 5 - 48 OF 65 (73.8%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.40804			.21903 *1
Cramer's V	.20402			.21903 *1
Contingency Coefficient	.37780			.21903 *1

Lambda :				
symmetric	.02210	.01678	1.30108	
with S01 dependent	.03019	.02291	1.30108	
with S04_05 dependent	.00000	.00000		
Goodman & Kruskal Tau :				
with S01 dependent	.01401	.00455		.20871 *2
with S04_05 dependent	.04958	.01690		.04603 *2
Uncertainty Coefficient :				
symmetric	.04407	.01178	3.63088	.57912 *3
with S01 dependent	.02979	.00815	3.63088	.57912 *3
with S04_05 dependent	.08461	.02150	3.63088	.57912 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 0

TABULATION 4

S01 Principal Business Activity by S04_06 Employee Centred

Page 1 of 1

Count	S04_06					Row Total
	Very Imp ortant 1	Quite Im portant 2	Neither Unimp. N 3	Quite Un important 4	Very Uni mportant 5	
S01						
1 Agriculture, For	1	1				2 .6
2 Mining Minerals,	5	4	1			10 3.0
3 Construction & C	3	7	4	1		15 4.5
4 Metal Goods, Eng	3	3	2			8 2.4
5 Electrical Engin	9	10	1	2		22 6.6
6 Other Manufactur	21	31	13	1	1	67 20.2
7 Transport, Commu	14	19	6		1	40 12.0
8 Wholesale & Petr	4	2	2	1		9 2.7
9 Retail, Restaura	7	6	2	1		16 4.8
10 Finance, Insuran	18	26	7	5		56 16.9
11 Business Service	7	5	7	1		20 6.0
12 Health , Educati	16	16	6	1	1	40 12.0
13 Public Admin., L	9	10	5	1	2	27 8.1
Column Total	117 35.2	140 42.2	56 16.9	14 4.2	5 1.5	332 100.0

Chi-Square	Value	DF	Significance
Pearson	34.59594	48	.92667
Likelihood Ratio	36.01254	48	.89861
Mantel-Haenszel test for linear association	.85237	1	.35588

Minimum Expected Frequency - .030
Cells with Expected Frequency < 5 - 43 OF 65 (66.2%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.32281			.92667 *1
Cramer's V	.16140			.92667 *1
Contingency Coefficient	.30720			.92667 *1
Lambda :				
symmetric	.02407	.02035	1.16839	
with S01 dependent	.01887	.01121	1.67368	
with S04_06 dependent	.03125	.04585	.67128	
Goodman & Kruskal Tau :				
with S01 dependent	.01030	.00394		.75661 *2
with S04_06 dependent	.02120	.00936		.99040 *2
Uncertainty Coefficient :				
symmetric	.03077	.00860	3.51442	.89861 *3
with S01 dependent	.02362	.00669	3.51442	.89861 *3
with S04_06 dependent	.04415	.01209	3.51442	.89861 *3

*1 Pearson chi-square probability

*2 Based on chi-square approximation

*3 Likelihood ratio chi-square probability

Number of Missing Observations: 0

S01 Principal Business Activity by S04_07 Customer Focused

Page 1 of 1

Count	S04_07					Row Total
	Very Imp ortant 1	Quite Im portant 2	Neither Unimp. N 3	Quite Un important 4	Very Uni important 5	
S01						
1 Agriculture, For	2					2 .6
2 Mining Minerals,	7	1	1		1	10 3.0
3 Construction & C	10	4	1			15 4.5
4 Metal Goods, Eng	8					8 2.4
5 Electrical Engin	22					22 6.6
6 Other Manufactur	54	11	1		1	67 20.2
7 Transport, Commu	37	3				40 12.0
8 Wholesale & Petr	7	1	1			9 2.7
9 Retail, Restaura	15	1				16 4.8
10 Finance, Insuran	43	11	2			56 16.9
11 Business Service	14	2	4			20 6.0
12 Health , Educati	29	7	2	2		40 12.0
13 Public Admin., L	17	8	2			27 8.1
Column Total	265 79.8	49 14.8	14 4.2	2 .6	2 .6	332 100.0

Chi-Square	Value	DF	Significance
Pearson	70.18524	48	.02004
Likelihood Ratio	56.09880	48	.19727
Mantel-Haenszel test for linear association	3.16672	1	.07515

Minimum Expected Frequency - .012
Cells with Expected Frequency < 5 - 49 OF 65 (75.4%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.45978			.02004 *1
Cramer's V	.22989			.02004 *1
Contingency Coefficient	.41774			.02004 *1

Lambda :				
symmetric	.01506	.00890	1.67368	
with S01 dependent	.01887	.01121	1.67368	
with S04_07 dependent	.00000	.00000		
Goodman & Kruskal Tau :				
with S01 dependent	.01830	.00358		.01219 *2
with S04_07 dependent	.06175	.01782		.00171 *2
Uncertainty Coefficient :				
symmetric	.05721	.01266	4.29346	.19727 *3
with S01 dependent	.03679	.00851	4.29346	.19727 *3
with S04_07 dependent	.12851	.02518	4.29346	.19727 *3

- *1 Pearson chi-square probability
*2 Based on chi-square approximation
*3 Likelihood ratio chi-square probability

Number of Missing Observations: 0

TABULATION 4

S01 Principal Business Activity by S04_08 Community Centred

Page 1 of 1

Count	S04_08					Row Total
	Very ortant 1	Imp portant 2	Im Unimp. 3	Neither N 4	Quite important 5	
S01						
1 Agriculture, For	1		1			2 .6
2 Mining Minerals,	3	3	4			10 3.0
3 Construction & C	3	4	4	4		15 4.5
4 Metal Goods, Eng	2	2	4			8 2.4
5 Electrical Engin	2	7	9	2	2	22 6.6
6 Other Manufactur	5	24	28	5	5	67 20.2
7 Transport, Commu	6	13	18	2	1	40 12.0
8 Wholesale & Petr	1	3	4		1	9 2.7
9 Retail, Restaura	3	6	4	2	1	16 4.8
10 Finance, Insuran	5	20	19	9	3	56 16.9
11 Business Service		5	11	2	2	20 6.0
12 Health , Educati	16	12	8	3	1	40 12.0
13 Public Admin., L	9	5	8	2	3	27 8.1
Column Total	56 16.9	104 31.3	122 36.7	31 9.3	19 5.7	332 100.0

Chi-Square	Value	DF	Significance
Pearson	60.16044	48	.11194
Likelihood Ratio	63.67053	48	.06440
Mantel-Haenszel test for linear association	.50774	1	.47612

Minimum Expected Frequency - .114
Cells with Expected Frequency < 5 - 42 OF 65 (64.6%)

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	.42568			.11194 *1
Cramer's V	.21284			.11194 *1
Contingency Coefficient	.39167			.11194 *1
Lambda :				
symmetric	.05684	.02641	2.10320	
with S01 dependent	.05660	.02168	2.56037	
with S04_08 dependent	.05714	.04624	1.20261	
Goodman & Kruskal Tau :				
with S01 dependent	.01979	.00602		.00350 *2
with S04_08 dependent	.04429	.01241		.13974 *2
Uncertainty Coefficient :				
symmetric	.05165	.01088	4.68485	.06440 *3
with S01 dependent	.04176	.00885	4.68485	.06440 *3
with S04_08 dependent	.06768	.01420	4.68485	.06440 *3

- *1 Pearson chi-square probability
- *2 Based on chi-square approximation
- *3 Likelihood ratio chi-square probability

Number of Missing Observations: 0

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A handwritten signature in black ink, appearing to read 'MJ Lovell', written over a horizontal dotted line.

MJ Lovell