Knowledges for the Early Childhood Education and Care Workforce in Europe

The European Commission provides a European level framework for lifelong learning that guides education providers to focus national and European efforts to support students in achieving social inclusion, active citizenship and employability in a knowledge based society through the acquisition of competences appropriate for the context. The European Lifelong Learning Programme defines competences as “a combination of knowledge, skills and attitudes” (European Commission, 2007: 3). In this paper, I explore the competences for the context of working in early childhood education and care (ECEC). ECEC is understood as services for children from birth prior to starting school. Inevitably, there are variations in the types of ECEC services that are available in different European countries, shaped by historical developments and policy interventions, such as whether there is an integrated model of care and education for all children or a split system of care for young children and early education for older ones. The variations result in diverse training requirements and respective job roles in ECEC service across Europe. Considering ECEC across Europe therefore presents clear challenges due to the differences that exist and these should not be underestimated, particularly in appreciating how socio-cultural perspectives of children, childhood, education and care in respective countries will influence the form and character of services and the ECEC workforce. However, my intention is to treat the European ECEC workforce as a collective in order explore the knowledge, skills and attitudes required for the context of working in ECEC irrespective of the country, type of ECEC institution or training requirements. The cross European approach is synonymous with European Commission recommendations for member states that do not differentiate by country, including quality recommendations where ‘well-qualified staff’ are identified as being central to the quality of ECEC (European Commission, 2014). The centrality of the workforce for the quality of ECEC provides the basis for better understanding the knowledge, skills and attitudes that are desirable. Treating the European ECEC workforce as a collective provides a broad approach to the European literature that is available, but it is anticipated that the analysis can act as a foundation for considering the relevance of the knowledge, skills and attitudes identified for individual countries and members of the ECEC workforce within them.

I present an overview of the approach to the literature review and the analysis of the knowledge, skills and attitudes identified, before drawing on Bernstein’s concepts of horizontal and vertical knowledge to consider how knowledge, skills and attitudes can variously be understood as either coherent or
segmented forms of knowledge and why this might have consequences for what is identified as legitimate ways of knowing for working in ECEC. In particular, I focus on the interplay between lay knowledge, reflective practice for understanding pedagogical beliefs and attitudes as they not only represent the interplay between knowledge, skills and attitudes, but they also illustrate that horizontal knowledge, despite lacking in structure and being tacit, is central to working in ECEC.

The Review

The literature review was conducted using the search term “early childhood education and care workforce” into a UK based, Higher Education library search engine using. The search generated 483 results. Non-academic sources, such as newspaper articles and book reviews, and any duplicates were omitted, along with any non-European sources. The title and abstract of each document was reviewed. Where the focus of the document was not clearly on the ECEC workforce, such as those considering health and social care professionals, the item was omitted from the review. The result was 51 sources, predominantly journal articles reporting on empirical research. Large scale, cross country reviews conducted by the European Commission were also included in the review. The use of an English database and a reliance on sources that were written in English clearly limited the scope of the review as sources from newer Member States are particularly lacking (there is no representation from Croatia, Czech Republic, Estonia, Latvia or Poland, in addition to Cyprus and Portugal) and there is a dominance of literature from English speaking countries (11 from the UK and 9 from Ireland), the Scandinavian countries (6 from both Denmark and Finland and 7 from Sweden) and Germany (5 sources). However, even in considering the representation of the countries in this way there are difficulties as some countries experience differences in the requirements for the ECEC workforce due to the governance of ECEC being at a non-national level. For example, in the UK there are differences for England, Northern Ireland, Scotland and Wales, with the literature being predominantly from England and Scotland. The review is therefore not representative of all of Europe, with an appreciation that the variations that exist within countries have been neglected in the analysis. The literature largely represents studies focussed on members of the ECEC workforce who are training at a Higher Education (degree) level, with many of the studies being qualitative in their approach.

A broad coding frame of knowledge, skills and attitudes, as well as nodes for each country was established in Nvivo and then supplemented with nodes for child outcomes, gender, professional development (post initial qualifications), the relationship between quality and qualifications, training models and views on the ECEC workforce as a result of a grounded approach to the analysis that
identified emerging themes from the data. The focus here is on the knowledge, skills and attitudes nodes, which were broken down into sub-nodes as is evident in the headings used in the discussion presented. The analysis required judgements on what constituted knowledge, skills and attitudes and the later discussion makes the judgements apparent, but also highlights that knowledge, skills and attitudes are not mutually exclusive as they interact with one another; what is identified as knowledge can also, at times, be regarded as a skill, along with considerable debate as to whether attitudes can in fact be regarded as a form of knowledge. Drawing on the sociology of knowledge, and Bernstein’s concepts of horizontal and vertical knowledge, the argument is made for knowledges for ECEC in order to appreciate the relationship between the three, separated constructs of knowledge, skills and attitudes.

Knowledge

Constructions of knowledge represent the various forms of information that those working in ECEC were expected to know about in order to perform their pedagogical role. Knowledge therefore encompasses child development knowledge, pedagogical knowledge, policy knowledge and lay knowledge, but as will be discussed, knowledge can be contested with some forms of knowledge being more structured than others.

Child development knowledge

The influence of child development knowledge for the ECEC workforce was evident across the literature (MacFarlane and Lewis 2012; Millar 2008; Moloney 2010; Moloney and Pope 2013; Vincent and Braun 2011). Much of the child development was seen to come from development psychology (Urban et al, 2012), and whilst a broad field, it was identified as informing the professional knowledge needed for working in ECEC (Miller, 2008), in relation to members of the ECEC workforce recognising their role in supporting a child’s development through their pedagogical practice. Some aspects of developmental psychology featured more strongly than others. Vandenbroeck and Peeters (2008) discuss the influence of knowledge on attachments and their importance for child development as shaping the ‘ideal’ pedagogue. More recently neuro-science has also begun to inform the knowledge base for ECEC to affirm the importance of secure attachments for supporting children’s physical, emotional and cognitive development (Aslanian, 2015). The neuroscience knowledge base for ECEC combines with historical knowledge derived from ECEC pioneers such as Froebel, Malaguzzi and Montesorri who offered knowledge both on children’s development and how a pedagogue should interact with children to
support their development. For example, Aslanian (2015) writing from Norway and Onnismaa et al. (2015) writing about Finnish pedagogical practice, discuss the influence of Froebel’s philosophy and pedagogical thinking as a basis for the theoretical knowledge required for ECEC.

Despite identifying child development knowledge as pivotal for those working in ECEC, there was evidence that it was a contested form of knowledge that could be misinterpreted or applied. In particular, there was evidence that child development could become about technocratic approaches to ECEC, whereby the ECEC workforce are responsible for ensuring children reach desired, normative stages of development and that this could create narrow constructs of the role and function of ECEC, those who work in it and children. Children’s learning becomes about predefined outcomes, with pedagogues being technical experts to ensure children meet the outcomes (Van Laere et al. 2012) with a concern that there is a focus on a deficit model of child development, that emphasises the developmental norms that children have not yet reached. Child outcomes become cultural constructs of the normal child, with a unease that the conceptualisation of child outcomes is increasingly focussed on a narrow understanding of child development, preoccupied with cognitive development and academic ability, rather than a holistic conception. Thus whilst developmental psychology has, and does, contribute to understanding ECEC and the workforce, it is a contested form of knowledge.

**Pedagogical knowledge**

Pedagogical knowledge represents an interest in the construction of the learning environment, provision of resources and the interactions of adults that will support a child’s development (Moloney 2010) and whilst child development knowledge is identified as contested, it informs pedagogical knowledge, particularly in relation to constructions of the child, their ability and how they learn. Children as learners are understood as competent, active and capable (Kuisma and Sandberg 2008; Miller 2008; Vincent and Braun 2011). Kuisma and Sandberg (2008) write of Swedish ECEC workforce training and discuss the role of the preschool teacher as being skilful in responding to children and developing activities that have the child and their interests at the centre. Pedagogical knowledge is therefore about responding to children’s needs and capacity, supporting their learning through following their interests.

References to child centred pedagogy are common for ECEC, being identified by country experts in Denmark and Romania (Urban et al. 2011), with Moloney (2010) discussing how it has become a feature of Irish policy rhetoric on ECEC, but questioning the extent that this results in it being embedded in
practice. There is evidence that interpretations of child centred pedagogy can vary as a result of the cultural context (Georgeson et al. 2015). Child centred can represent an equality term both in regards to treating children equally and acknowledging them as competent, active and individualised learners, an advocacy term through recognising early childhood as an important stage in its own right and a social term of the child as a part of their family and the wider community (Geogreson et al, 2015). The constructs of child centred practice are not exclusive, but the interpretation will vary in respective countries due to wider social constructions of children, informing how pedagogical knowledge is applied.

**Policy knowledge**

Policy knowledge represents curriculum guidance, child protection legislation, health and safety requirements and other formal (legislative) requirements. For example, Vincent and Braun (2011) discuss how English students require an understanding of national learning objectives for children, with a similar discussion from Miller (2008) and Moloney (2010), from the Irish perspective. However, the earlier discussion on misinterpretations of child development knowledge are pertinent as there are concerns that policy can present restricted or limited understandings of other forms of knowledge, such as an understanding of child development knowledge focussed on cognitive development, rather than a more holistic construct. There is also a view that policy knowledge can be about control through imposing particular requirements on those who work in ECEC (Urban, 2008). For example, debates on the knowledge required for working in ECEC recognises the role of policy makers in determining professional (workforce) standards (Kendall et al, 2012). However, the knowledge base for the standards might not always be apparent; Vrinioti (2013) writing about Germany and Greece explores how definitions of professionalism imply an application of scientific knowledge, but questions which sciences provide the backbone of the profession.

**Lay knowledge**

The scientific knowledge of policy makers seems to be in tension with lay knowledge – the everyday knowledge that members of the ECEC workforce draw upon that is not grounded in child development, pedagogical or policy knowledge. Lay knowledge is the tacit knowledge that does not have a base in theory, research or policy, instead being derived from both wider culture and the ECEC workforce. Lay knowledge represents wider social understandings of children, their development and learning that are derived not from textbooks (for example), but from cultural images of children that are present in the media and amongst peer groups (for example). The cultural constructs of children and their learning will
also be informed by the experiences of working with children for the ECEC workforce, along with other experiences with children, such as being a parent. Lay knowledge both informs members of the ECEC workforce and can be informed by them. The literature refers to communities of practice (Balduzzi 2011; Karila 2008; Miller 2008; Moloney 2010; Payler and Locke 2013), whereby those undertaking training are in the process of becoming a part of a community and that they will learn some of the knowledge required of them through their participation in that community. For example, they will learn about the daily routine and resources that are used in practice. Within the community, knowledge forms a two way flow, as members of the ECEC workforce not only learn about the community, but also contribute to it. As a form of knowledge transfer the knowledge will be fluid, context dependent and therefore unstructured. The knowledge base for ECEC therefore represents different forms of knowledge.

Skills

Skills represent the application of knowledge – the ability to perform tasks and solve problems (Halász and Michel, 2011). There is an overlap with the identification of knowledge and skills in the coding process, resulting in double coding, this is most evident in the creation of pedagogical environments being about both child development and pedagogical knowledge, with double coding also occurring with attitudes as will be discussed.

Creating pedagogical environments

Pedagogical knowledge, combined with child development knowledge has a practical application for pedagogues to provide resources and materials that support child development (Moloney, 2010). Maloney (2010: 191) explores how for the early childhood pedagogue the role is ‘complex, demanding and challenging’ requiring the ability to understand and apply child development knowledge (Kuisma and Sandberg, 2008). The identification of child development knowledge is therefore not solely about acknowledging it, but also an appreciation of the application of that knowledge. Jensen (2015) discusses how the pedagogical approach in Denmark is shaped by the child centred view of the confident and capable child, therefore pedagogical skills are about creating and maintaining democratic spaces for children whereby pedagogues incorporate the child’s perspective and supports them in their meaning making. Recognition for building on children’s existing abilities is also about a child’s physical abilities (Colley, 2006), again illustrating the interplay between child development knowledge and pedagogical knowledge for informing pedagogical skills. Egan (2009) refers to the importance of child centred conversations, whereby there are sustained cognitive engagements between the child and pedagogue.
(referred to as sustained shared thinking). The association between child centred knowledge and child development knowledge is evident, but under skills the knowledge is practically applied.

Pedagogical knowledge is also about learning through play, with play enabling a child to lead their own learning through self-exploration – a child centred image of children as competent, active and individual learners. Play based approaches are synonymous with the concept of the competent child and being child centred with an appreciation that pedagogical knowledge includes understandings of play and play based approaches (Moyles, 2001). Colley (2006) re-emphasises the link between child development knowledge and pedagogical knowledge, exploring how English practitioners look to extend children’s learning by asking question of their play. However, there are concerns that play could be lost in pedagogical knowledge if understandings of child development and how best to support children’s learning become preoccupied with narrow and technocratic conceptions of child development (Van Laere et al. 2012).

**Forming relationships**

Incorporating the child’s perspective and identifying their needs makes it apparent that working in ECEC requires the skill to form relationships with children. The relationships will be shaped by pedagogical knowledge, particularly understandings of child centeredness, but also child development knowledge. As Jensen et al (2010) writing from Denmark identify, child centred knowledge informs a need to develop democratic relationships. Yet the importance of relationships is deeply embedded in child development knowledge, particularly in relation to attachment knowledge, whereby attachments support a child’s development.

Relationships extend beyond those formed between pedagogue and child, as the pedagogue will also have a role in supporting relationships between children, with other staff members and also with parents. Again it is important to recognise that relationship forming will be shaped by the context, for example the staff requirements will place more of an emphasis on co-worker relationships where there are more members of staff working within an ECEC setting, such as a teacher with an assistant or where ratio requirements demand more members of staff. Lazzari (2012), writing about professionalism in Bologna identifies that conceptions of professionalism are deeply entwined with understandings of relationships between colleagues. Similarly, parental partnerships can be shaped by policy expectations, such as in Finland (Karila, 2008), and are increasingly emphasised at the European level.
Reflection

Whilst the analysis has identified commonalities in the knowledge and skills advocated for ECEC, it is apparent that there are differences both between pedagogues in different countries and those within the same country in how they work in ECEC. There is not one model of a pedagogue. There is an appreciation that the application of knowledge will be dependent on a pedagogues beliefs (Fukkink and Lont, 2007), demonstrating the need for early childhood pedagogues to consider their own beliefs and how they shape their pedagogical practice (Miller, 2008). Considering and understanding one’s own beliefs makes the skill of reflective practice explicit, but there is a wider appreciation that reflective practice will enable early childhood pedagogues to make sense of their practice in regards to considering their daily experiences (lay knowledge), but also in considering how to apply knowledge – the connection between theory and practice (Egan, 2009). Kuism and Sandberg (2008) identify that reflection can be both individual and collective for understanding pedagogical practice, with a general appreciation that reflection is embedded in the skills required of the ECEC workforce. Training therefore has a role in developing the reflective skills of the future ECEC workforce (Balduzzi, 2011), but Urban et al 2012) identify that whilst the term reflection is frequently used this does not mean that there is a consensus on how the skill is performed. A greater understanding of reflective skills is therefore needed.

Attitudes

Attitudes are far from separate from knowledge and skills. As already discussed, lay knowledge represents a two way transfer of knowledge with members of the ECEC workforce learning about and contributing to communities of practice. The knowledge transfer encompasses the experiences and beliefs of those working in ECEC, with reflection being presented as the way for pedagogues to identify their beliefs. Attitudes, therefore bring together knowledge and skills. However, attitudes were the most difficult aspect of the analysis as they were concepts that were hard to define, often represented by terms that overlap one another, but with little articulation of the differences between the terms, such as the distinction between attitudes and beliefs. Whilst in the context of the analysis there is a consideration of attitudes, there is evidence that attitudes are interchangeable with beliefs, dispositions and an ethics of care. Embedded in these in an appreciation that working in ECEC has an emotional aspect and whilst this is evident in the skill to form relationships, here it is about the many words used to describe the emotions, such as love, sensitivity, empathy, passion, warmth, being emotionally accessible and emotional intelligence. The challenge of defining attitudes is related to a second
difficulty, whereby attitudes are an emerging area in understanding the competences for working in ECEC. Whilst the lay knowledge referred to earlier has long been regarded as a features of ECEC it is one that is increasingly coming under scrutiny, resulting in emerging and evolving understandings. No longer is there a mere acceptance that there are tacit forms of knowledge that inform those working in ECEC, there is a desire to better understand and appreciate them (Elfer, 2013).

I believe that whilst knowledge, skills and attitudes will all be shaped by the cultural context, the attitudes required for ECEC are particularly embedded in the cultural context in regards to how children, childhood and ECEC are all conceptualised. The cultural context shapes the ways in which ECEC services are spoken about and the appropriate language to describe working in ECEC. Research by Campbell-Barr et al (2015) demonstrates the differences in how those undertaking Higher Education training in England and Hungary express the attitudes required for working in ECEC and how the words for describing the attitudes that are appropriate in one country can be culturally misplaced in another. Campbell-Barr et al consider how the development of ECEC both in regards to history and policy, along with wider cultural constructions around children and childhood (lay knowledge) impact on how those in ECEC describe the attitudes required. Attitudes also vary according to the age of the child and a perception of their needs (Bulduzzi, 2011). There are therefore social understandings of children that will vary culturally, but nonetheless are a powerful force in shaping the combination of knowledge and skills via attitudes (Colley, 2006).

Yet, despite identifying attitudes as embedded in the cultural context, they are often identified as innate, relating to the discussion on how ECEC pedagogues need to understand how their own beliefs will inform their interpretations of knowledge. The innate construct of attitudes, or of them being common sense, means that they are often undervalued in ECEC workforce requirements. A number of studies refer to the low pay and status of working in ECEC (Jones, 2015; Miller, 2008; Moloney and Pope, 2013; Payler and Locke, 2013) and attribute this to struggles to gain recognition for the skilled work of ECEC pedagogues. Whilst struggles for recognition of the work of pedagogues might not be universal across Europe (for example the professionalisation of pedagogues in France has a long history and is a combined model of those working in ECEC and primary schools - Garnier, 2012), knowledge that is regarded as innate could undermine the notion of a professional, coherent and established knowledge base.
Knowledges for Early Childhood Education and Care

The initial analysis of knowledge, skills and attitudes presented itself as some form of triad, a coming together of the three features in a relational way, but I grappled with what form the triad would take. If viewed as hierarchical, what forms the foundation for working in ECEC – knowledge, skills or attitudes? Would the hierarchy be one with a broad base of either knowledge, skills or attitudes that implies that one is required more than the others? Alternatively, could the triad be represented as a triangle, with the three sides representing knowledge, skills and attitudes? If so, would all sides be equal? Drawing on the sociology of knowledge it is evident that there are differences in how knowledge is described, transmitted and legitimised that I believe is important for understanding the relationship between knowledge, skills and attitudes that would result in them not being presented as a triad. I think the sociology of knowledge, and particularly the work of Bernstein (1999, 2000) is helpful for considering the bringing together of scientific knowledge (for example child development knowledge) and everyday knowledge (lay knowledge and attitudes) and for developing an understanding of knowledges for the context of ECEC.

The sociology of knowledge has its origins in the work of Durkheim who identified that professional knowledge in sacred societies focussed on a commitment to moral codes and ethics, but that such features were lost in profane cultures where there was a focus on individualism, enterprise and reason (Young and Muller, 2014). The reasoned professionalism required a sound knowledge base, whereby ECEC becomes a science of applying the forms of knowledge that have been demonstrated to support child development. For Bernstein, (1999) this knowledge is vertical knowledge which is coherent, explicit, structured and has a specialised language. Vertical knowledge is strong as it can speak to other knowledge and history (Young and Muller, 2007), enabling it to be described and distributed, thus allowing it to be scrutinised and challenged, which can contribute to legitimising this knowledge. Further, the ability to describe and distribute the knowledge can lead to shared conceptions (Hordern, 2014). I would argue that developmental knowledge, pedagogical knowledge and increasingly neuroscience are vertical knowledge (strong and structured) that has been re-contextualised for understanding working in ECEC.

Conversely, Bernstein’s (1999) horizontal knowledge represents everyday knowledge that is likely to be local, context dependent and tacit and I would argue that there is much about lay knowledge and attitudes that represents horizontal knowledge. Horizontal knowledge is segmented and unstructured rendering it difficult to distribute. Horizontal knowledge is identified in different segments, where the
language to describe it is embedded in the group, resulting in the knowledge being distributed locally. Whilst there may be similarities between different segments, the unstructured nature of horizontal knowledge means the similarities cannot be scrutinised. I would suggest that the lay knowledge of communities of practice represents the segmented form of horizontal knowledge that is embedded in the everyday and that whilst the slippage in language to describe attitudes would potentially locate it within horizontal knowledge, this could vary depending on future articulations of attitudes. Horizontal knowledge is not legitimised within power structures that validate knowledge which can be described and scrutinised – vertical knowledge. But just because something cannot be scientifically proven is not to say it is not there (Young and Muller, 2007). I would argue that horizontal knowledge has greater relevance for those working in ECEC than vertical knowledge. The production and circulation of vertical knowledge is dislocated from the knower as the hierarchical structure results in some people being excluded from the knowledge base. The knowledge therefore becomes separated from the inner commitment and dedication of individuals (Bernstein, 2000). A separation from vertical knowledge is evident in the literature that presents research evidence from ECEC students where they question the relevance of theory (e.g. Onnismaa et al, 2015 and Stenberg et al, 2016), instead emphasising practical experience – horizontal knowledge.

The differences between horizontal and vertical knowledge means that they can be positioned in tension with one another. However, Bernstein (2000) created a model whereby professional knowledge could face towards both the vertical and horizontal. Bernstein identified singulars, regions and fields of practice. A singular represents an academic discipline, with different disciplines being brought together and re-contextualised in a region. ECEC can be identified as a region that draws on different singulars, such as child development knowledge, pedagogical knowledge and neuroscience. However, regions face two directions, one towards singulars and another towards fields of practice. Fields of practice represent the specialised, practical and tacit knowledge (horizontal knowledge) that informs professional practice. Identifying ECEC as a region enables an appreciation of knowledges for working in ECEC – both vertical and horizontal. In this way the triad of knowledge, skills and attitudes is reconceptualised as knowledges, encompassing child development knowledge, pedagogical knowledge, lay knowledge and the many ways in which attitudes can be described.

Concluding Thoughts
Having reconceptualised the triad of knowledge, skills and attitudes as knowledges, there remains two core issues that need to be addressed; one in regards to the contestable nature of knowledge and the
second in relation to the innate or social construction of knowledges. Within the literature that referred to the vertical knowledge that was identified, it was evident that knowledge was contestable, as the presumed certainty and legitimacy of knowledge could be questioned, such as children’s development being restricted to predefined outcomes and a technocratic view of those working in ECEC as being responsible for meeting those outcomes (Van Laere et al. 2012). Whilst the technocratic model has consequences for both understandings of children and those who work with them, it also fails to recognise that outcomes will be determined by what is seen as culturally desirable. The cultural context will shape ECEC services and those who work in them, challenging the strong and structured view of vertical knowledge and making the plural of knowledges even more pertinent as there will be no one model of knowledges for ECEC. However, I also believe that the cultural context has consequences for understanding and determining other forms of knowledge, including those that are frequently presented as innate. The innate construction of attitudes (sometimes referred to as dispositions or an ethic) firstly assumes that those who choose to work in ECEC will come with the necessary attitudes to enable them to undertake their professional role, but this innate construction masks the challenges of working in ECEC, particularly in regards to knowing what are the appropriate attitudinal responses to make in a given situation. Attitudinal responses will be shaped by the cultural context, the community of practice and being child centred, as different cultures will have differing expectations of how to respond to and interact with a child, with further variations being found at more localised levels and even more when taking into account the responses to different children. Whilst the horizontal nature of the knowledge for understanding these differences means that there are limits in finding the language to describe them, I do not think that this should prevent an appreciation of the complexities of knowing how to work in ECEC. Working in ECEC is not an innate act it is the careful and considered application of knowledges.
References


A later stage of the research has looked to supplement the literature review through searching for sources in seven case study countries: the UK, Hungary, France, Romania, Ireland, Finland and Italy. The case studies will be reported on at a later stage and can be accessed here: https://ecece workforce.wordpress.com/