

2016

You'll face me: an investigation into improving puffin crossing safety by controlling PDU placement

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The Plymouth Student Scientist
University of Plymouth

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1. Appendices

1.1. Appendix A- Raw Data from Sites 1 and 2

Table 1: Site 1 and Site 2 raw data

Puffin Crossing Data Collection Sheet

	A	B	C	D	E	Total
Blind Zone	2	2	3	6	16	29
Visible Zone	6	5	2	2	4	19

		Looked at PDU	Didn't look at PDU
Blind Zone		7	22
Visible Zone		11	8
Total		18	30

Comments	
Occasionally someone would run across the road without looking at the PDU or pressing the button.	
After the hour mark there was a noticeable increase in people standing in the blind zones and not looking at the PDU this may be due to students running late to lectures trying to get across quickly.	
Crossing is wider than 5 tiles, it was actually 7 tiles. I included the results for the people standing in the 6th/7th tile as part of tile A. This is because the blind zone is really close to the kerb when you are that far away from the PDU so most people were standing in the visible zone.	

Date	18/02/2015
Location	Cobourg Street Puffin Crossing
Start time	9:35AM
End time	10:30AM

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Puffin Crossing Data Collection Sheet

	Looked at PDU	Didn't look at PDU
Blind Zone	0	3
Visible Zone	25	6
Total	25	9

Comments	
Almost nobody stood inside the blind zone. This is because it is quite close to the kerb and a lot of buses go down Mutley plain making it dangerous to stand too close to the edge.	
Generally speaking, people were in a hurry and took their time crossing the road. The pedestrians were mainly elderly or mothers. Both of which were generally cautious crossing the road. Mothers especially stand well back from the kerb when they had prams with them.	
The PDU being closer to the edge of the kerb does seem to have the desired effect of making it easier to see but as explained above, there are other factors that may be affecting the data.	
People who didn't look at the PDU either used the fact that others were crossing or an indicator that it was safe to cross the road was clear and crossed without using the push button.	

Date	Wednesday 11/03/2015
Location	Mutley Plain
Start time	10:00am
End time	11:00am

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1.2. Appendix B- Risk Assessment

Table 2: Risk Assessment for Data collection

<u>General Risk Assessment Form</u> (Revised May 2014)			
Date:	27/01/15	Assessed by:	Ibrahim Allouche
		Activity/Location	Module: PRME 304 Individual roadside survey
Hazard	No. at Risk	Controls in Place at Present	Residual Risk Rating
Being hit by traffic swerving onto pavement.	1	Barriers around the puffin crossing. Also this experiment requires me to observe from a distance so I should be nowhere near the side of the road.	N/A
Being hit by traffic while crossing the road.	1	Look both ways before crossing and use the puffin crossing appropriately. Do not step off the curb unless you are crossing.	N/A
Adverse weather conditions making surfaces slippery.	1	Wear correct footwear and stay back from the edge of the road.	N/A
Pedestrians noticing my survey and objecting to being monitored.	1	As I will be standing a fair distance back, I should remain inconspicuous. In the event that a pedestrian does notice me, I can explain that no personal information is being recorded, simply the position they stand in as they wait to cross the road.	N/A

Approved _____

PRINT: _____

1.3. Appendix C- Significance tests

Table 3: Significance test for 2 population proportions

	Looked at PDU (x)	Didn't look at PDU	Total (n)
Site 1 P1	18	30	48
Site 2 P2	25	9	34

Z test for 2 population proportions

P1hat	0.375
P2hat	0.735294118
Phat	0.524390244
1/n1+1/n2	0.050245098
z	-3.218530609
p	0.0006
Significance level	0.05
P<0.05	Result is significant

Table 4: Binomial test of significance

Binomial Test	
Variable	Looked at PDU
N	34
Observed K	25
Expected K	12.75
Assumed P	0.375
Observed P	0.735294118
Significance level	0.05
Binomial distribution	0.0000214