



Safer Crossings Qualitative Research

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Executive Summary

Overwhelmingly crossings were seen by all respondents as a vital part of their orientation and mobility in the wider world. Many would walk a little further or go a long way out of their way on foot or by bus in order to use specific crossings where they felt safer. For many, crossing a road in an urban area without a crossing was simply not an option.

The majority of VI respondents were not aware of any crossings other than zebras and pelicans, and even once described, very few were aware of definitely having used either puffin or toucan crossings.

Amongst our sample of relatively confident crossing users, in the main, respondents were happy with the way pelican crossings worked, i.e. operated by pushing a button, and they relied on the beeping sound and / or the twirling cone to alert them to when it was safe to cross. These crossings were not without criticism – mainly about inconsistencies in operation.

In terms of confidence in using crossings, the pelican was the one that that gave VI respondents the most confidence, not least because of the legal requirement that the traffic stops at a red light. Whilst they were not aware of the characteristics of puffin crossings, respondents did agree that, rationally, the added sensor gave potential advantages of a shorter waiting time, and a longer crossing time. Unless VI people were aware of these characteristics and advantages, however, puffin crossings did not appear to offer significant emotional advantages or reassurance.

Toucan crossings which introduce cyclists, riding as opposed to walking, on to the same crossing as pedestrians, never mind VI pedestrians, were seen as a recipe for disaster. Having said that, respondents were not sure if they had been using this type of crossing already, and cyclist were damned for poor behaviours across the board. Respondents felt that very few VI people would be comfortable using toucan crossings.

Zebra crossings were being used by most, but with much less confidence, and much more trepidation, than controlled crossings. They were mainly used in the absence of controlled crossings, where there was no other option, or in quieter suburban / rural areas where the traffic volume was much less than in the centre of towns. There was a degree of cavalier behaviour – watch, listen, and then go and hope, by those who had no sight, and with slightly more confident behaviour by those who had some residual sight.

The ideal crossing was seen as a pelican crossing with the sensor (effectively a puffin), but without increased awareness of the characteristics, and demonstration of the benefits, then it offered little additional real reassurance.

Tactile paving in general was recognised as being a signal of a potential hazard, and was being used as such. There was little differentiation, however, between different types of tactile paving, and any different messages that they might provide. It was always mentioned as one of the signals for a crossing, and where the kerb drops to the road.

Shared space was disliked in actuality, and also in conceptual terms by those who had no examples of shared space locally. The whole idea of making eye contact, and mutual appreciation amongst various users, was unrealistic to VI people who had no sight. This feeling was exacerbated by the feeling that the general public was becoming less and less aware of the problems of VI people, and their aids (both guide dogs and long or symbol canes), and less accommodating of their situation and needs.

The main difference across the sample arose between VI respondents who had had mobility training (generally more confident at crossings), and those who had significant sight loss, but had not yet registered as blind, and had not had mobility training (less confident particularly in unfamiliar locations and with unfamiliar crossings).

1. Background

As a prelude to a potential campaign, the Policy Team at Guide Dogs is examining the issue of road crossings. The findings from the various sources will drive conversations Guide Dogs may have with policy makers.

A desk research paper has already been prepared, and Guide Dogs wish to add to this paper with a piece of qualitative research exploring reactions to the visually impaired (VI) population to the various types of road crossing. McDonnell Spence was, therefore, commissioned to carry out this research.

2. Objectives

The overall objective of the research was to gain reactions to, and usage of, the various types of road crossings. Specifically, the objectives were:

- To explore the awareness of the various types of crossing, and the knowledge of their characteristics
- To explore usage of, and reactions to, the various types of crossing, specifically:
 - Zebra crossings
 - Pelican crossings
 - Puffin crossings
 - Toucan crossings

- To gain reactions to tactile paving and its relevance to the visually impaired
- To gain reactions to Guide Dogs as a potential source of advice on, and campaigner for, design of road layouts, crossings, shared space, etc.

3. Methodology

The research was qualitative in nature, by means of 6 group discussions (1.5 hours in duration) over the period 17th September to 6th October 2014, in various UK locations:

- Kew (Greater London)
- Coventry
- Cardiff
- Glasgow
- Manchester
- Southampton

Respondents were recruited on the following criteria:

- All were significantly visually impaired; the majority were registered blind
- All were using a variety of road crossings on their own while out and about, the majority using mobility aids of various sorts; most were using crossings both in their less busy home environs, and also in town centres
- Broadly, 50% of respondents were Guide Dog owners, whilst the other 50% were mainly cane users, a small proportion used no mobility aid at all but generally admitted that they needed to.

It was decided not to recruit VI respondents who were not using crossings on the basis that their views would be perceptions of what they might do / what they think about crossings, rather than the reality of behaviour.

A full copy of the descriptions of the crossings used to prompt respondents, may be found in the Appendix to this document.

Main Findings

4. Context

When discussing the things that make their lives difficult in terms of getting about (walking, rather than public transport), then respondents cite a variety of issues:

- Other people! Respondents all have tales of how people are not now looking where they are going because of the ubiquity of mobile phone usage. They claim that the general public is not noticing their white canes, and even on some occasions, their guide dogs, with tales of people tripping over the cane, or coming between the VI person and their guide dog
- Cyclists, who ride on the pavement, or who come past at speed and without warning, close to a VI person who is considering crossing the road. Related to this is the upsurge in children using small scooters
- Street furniture, and signage, which are both unexpected and additions to the norm, as well as being difficult to see (particularly if light coloured tables & chairs)
- Mobility scooters
- Overhanging branches and hanging baskets, particularly those that have been recently watered
- Uneven ground, e.g. paving squares which are uneven, moving from one surface type to another
- Slippery ground: winter / icy conditions cause problems, and several respondents mentioned that new paving stones seemed to be made of very slippery material.

5. Awareness of crossing types

When asked to name the types of crossings they had heard of, and / or used, then the most frequently mentioned crossings were:

- Zebra
- Pelican

Only very rarely were other crossing types mentioned, and then without any real knowledge of what they are like, or how they differ from pelicans. A few respondents suggested that there are other types of crossing with bird names, but without any real degree of certainty as to names or characteristics.

Respondents were basing their knowledge on their experience of crossings they were using regularly. None of our respondents had had mobility training recently – the majority had

been visually impaired for some time, or had not yet taken the step of registering (despite significant sight loss), and getting mobility training. The relatively recent introduction of puffin crossings may mean that none of our respondents had been trained in their use when they had their mobility training.

In unfamiliar locations, then VI respondents were reliant on:

- Their guide dogs to guide them up to and across crossings
- Their long canes (and a good degree of confidence and / or some degree of residual sight)
- Friends they may be with
- Members of the public.

In using crossings, then those respondents who have had mobility training, and were using mobility aids such as a guide dog, or a long cane, appeared to be much more confident about crossing the road, than did those, who whilst they had significant sight loss, had not yet “succumbed” to getting mobility training. This higher confidence level appeared to come from their specific training and use of aids; the non-registered blind respondents were gaining their knowledge in an ad hoc fashion, and were rather more nervous, generally, about their mobility and scope.

6. Zebra Crossings

The format, and function, of zebra crossings were well known.

- The black and white stripes are good indicators for those who have some residual sight, and who are able to see contrasting colour
- Vehicles are supposed to stop when someone is on the crossing; there was, however, some doubt as to the legal requirements / position of cars vs. pedestrians, with respondents describing how they could stand on the kerb for some time ready to cross before a car would actually slow down and stop
- Crossings have belisha beacons, but there seemed to be an idea that all crossings do not have these nowadays. The beacons, again, were seen as helpful for those who have some sight remaining

Respondents used zebra crossings in the absence of other crossings, although the more nervous respondents would go some distance to avoid a zebra crossing if there was a controlled crossing nearby.

Zebra crossing were used...

- On quieter roads (suburbia, more rural locations), when there was less likely to be a pelican crossing

- When respondents were familiar with the area, and knew roughly what to expect in terms of traffic
- Where the road was less busy
- When there was no other choice, or when respondents would be forced to walk /go some distance to find another crossing.

Respondents at 2 of the groups mentioned being knocked down (one with an ongoing injury) or being nearly knocked down more than once by cyclists or cars on zebra crossings. All admitted to some degree of trepidation when faced with a zebra crossing.

The main worries were:

- That the cars (or indeed cyclists) will not stop in time; this was allied to the “to step or not to step” question. Respondents do not want to step into the road until cars have stopped, and yet they know that cars may not stop until they step off the kerb – they do not have the advantages that a sighted person has
- That a car will overtake a vehicle that has already stopped
- Cars starting to move before the crossing is complete, or revving the engines impatiently
 - is this a prelude to moving off?
- A general intolerance of people crossing, e.g. being waved on by motorists who seem to fail to notice either a guide dog or a white cane

Respondents used many of their senses at zebra crossings:

- Listening for cars, and cars slowing down, and stopping; here the problem of silent / electric cars was mentioned
- Watching for cars, or their general shape
- Tactile paving to feel where the kerb drops and the crossing starts.

Having determined by using their senses, respondents still felt they were taking something of a chance in stepping off the kerb on to the crossing. They felt nervous and uncertain, and thought that this would be the case for the majority of VI people. In terms of the sorts of VI people who might be most comfortable using a zebra crossing, then respondents claimed that this would be people with some residual sight.

When asked what improvements could be made to zebra crossings, then a number of suggestions were made:

- Make them pelican crossings!
- Make the distance between where the cars have to stop and the crossing wider

- Make a more visual indication for car drivers that a crossing is ahead and that they should slow down, e.g. an LED signal (like the speed smiley / frowning faces showing speeds over / under 30mph)
- Some sensor to indicate that someone is on the crossing that would signal to car drivers to slow down

7. Pelican Crossings

Pelican crossings were known by respondents both in terms of their characteristics and also by name. The characteristics that VI people list were:

- The beeping noise
- The twirling cone underneath the box
- Operated by pushing a button on the control box
- The red / green men on the opposite side of the road.

Pelican crossings would always be used in preference to zebra crossings, and certainly made VI people feel more reassured about their safety. They had the added advantage of the certainty that traffic is obliged to stop at a red traffic signal.

Respondents looked for, and used, the various features, as follows:

- The beeping...
 - Gives a very clear indication of when people should cross; there was however, quite a bit of comment that the increasing speed of the beeps can feel like they are pressurising people to cross the road more quickly, and added to concerns that cars may start to move before people have completed crossing the road
 - There was an awareness that the beeps are not used when there is more than one crossing in close proximity, e.g. a cross road, and the need for this was appreciated, although respondents would like some alternative
 - Respondents also claimed that the beeps were sometimes turned off just to avoid noise in residential areas, or that they just may not always work
 - Some respondents also stated that it was sometimes difficult to hear the beeping if there was a considerable amount of background/traffic noise.
- The twirling cone...
 - This was the second key indicator for VI people; when it starts to twirl, it means it is safe to cross
 - The complaints about the cone were that it does not always work, one never knows what else (nasty) will be found underneath the box, and it is not always on the right hand side of the crossing entry (as is expected, to fit in with having a guide dog on the left).

- The red / green lights...
 - These were also used by respondents who have some residual sight.

Whilst all respondents agreed that pelican crossings made things easier in terms of crossing roads, there were still some issues with the system:

- If it is a busy crossing, there may be difficulties in getting to the correct side of the crossing to access the cone – it is expected to be on the right hand side “box”. If there are a lot of people at the crossing, actually accessing the box may require getting through a crowd
- Being carried along with a wave of people who start to cross perhaps before the VI person is completely ready, and perhaps in advance of the bleeping / cone – if these are not working / cannot be accessed
- Dog leg shaped crossings with a middle island, when crossing two lanes of traffic / a dual carriageway, it is sometimes difficult to find the second crossing once on the island.

If there were any problems with the crossing, or it was an unfamiliar one, then respondents will ask for help from a member of the public.

Improvements that respondents suggested for pelican crossings were:

- An audio description of what is happening, i.e. that would tell you when it is safe to cross and also how much time is left before the lights change
- A sensor which would recognise people at, or on, the crossing, and manage the traffic signals accordingly (a feature of the Puffin crossings although it was not recognised as such).
- Respondents who hadn't had mobility training asked for some kind of tactile paving across the road to guide the straight direction to the other side, although it was acknowledged that this might not be practical for road users.

8. Puffin Crossings

Very few respondents mentioned Puffin crossings by name. Some suggested there are crossings with other bird names, one respondent said that puffin crossings sounded familiar, but when asked what they know about this type of crossing, nobody could describe what it was.

After being given the description, respondents' take-out was two-fold:

- That this is essentially a pelican crossing with an added sensor
- That there is no way of knowing if you are at such a crossing, and whether they have been using such a crossing in the past.

Having said that, most respondents felt it was a good idea, but with some reservations, in that they would be uncertain as to whether the sensor was working properly, and they would still rely on the bleeper and / or cone to signal when it was safe to cross.

The main advantages were seen as:

- Potentially a quicker reaction by the lights to accommodate the pedestrian; this was in the face of stories of waiting for a long time, on busy roads, for the lights to change and signal it was safe to cross
- Potentially a longer time available to cross, which would be an advantage for VI people, but also for the elderly and infirm, and indeed, all people who have a some sort of disability.

The red / green man on the box close to the twirling cone, and activation button, was seen as offering some advantage to those with some sight, in that it is closer to where they would be standing. For many, however, they are not able to see anything on the box however close, or they would be required to move their heads significantly to be able to see the box, and this is something that might be quite difficult to do if the crossing is busy.

In terms of how it would affect them, many respondents could see no real difference between the pelican and puffin crossings. If they had noticed a difference, then the main thing that was recalled was the different visual on the control box, and for many, if they have no residual vision as described above, this was no help at all. What seems clear is that puffin crossings have made no significance difference as to how VI people feel at a crossing, or how they use it. Any differences in waiting and / or crossing times were not commented upon, and an absence of waiting time did not appear to be noticed, whereas the presence of a long wait was.

9. Toucan Crossings

Only 1 person across the 6 discussions spontaneously mentioned having heard of a Toucan crossing, but was unable to describe what kind of crossing it is. One or two other respondents suggested it was something to do with the “two can” nature of the crossing without being able to get any further as to who the “two” might be.

When the nature of the crossing was described, all respondents were horrified. As evidenced by the comments about the things that make it difficult for them to get around on a day to day basis, cyclists were described as causing lots of problems:

- Cycling on the pavement
- Speeding past on roads while VI people are attempting to cross

- Being “quiet” so that VI people cannot hear them in the same way that they can hear cars (in the main), and thus become aware of oncoming traffic

Thus, allowing cyclists to ride across crossings seemed to be only encouraging behaviour which already causes problems for VI people, and indeed anyone who may have difficulties with walking quickly or with balance.

Specific worries about the toucan type of crossing included:

- VI people not knowing, or being able to recognise where their lane starts / is defined, and where cyclists lane starts / how it is defined
- Poor road etiquette / behaviour: cyclists were described as not good at looking ahead; they may just sweep round corners, or appear suddenly when VI people are starting to cross roads. In addition, they were deemed to be poor at actually paying attention to traffic signals, being cited as frequently jumping red lights and ignoring.

There was no situation where VI respondents felt that a toucan crossing was an improvement on a pelican crossing. For them it felt more dangerous, and certainly a crossing that the majority of VI people would not feel comfortable using.

10. Tactile Paving

Tactile paving was well known by all our VI respondents, and they described two types of paving that they experienced on a regular basis:

- Little circular bobbles
- Long strips
- Plus these on different coloured paving.

The main function of tactile paving was seen as acting as a warning, to alert the VI person that they have to exercise caution because of a particular hazard.

The hazards being signposted can, however, be many and varied:

- Signalling the edge of the pavement at a controlled crossing – particularly relevant for respondents given the subject of the discussion
- Signalling a crossing point at an uncontrolled crossing, with respondents often complaining that these are at / or on corners, whereas their mobility training always advised that they should go straight across a road, and not cross at a corner
- An alert for the top or bottom of stairs
- Delineating the edge of platforms on stations and underground (this was detailed as where different coloured paving is used most often).

Only a very few respondents could explain any difference in function amongst the various types of tactile paving, and even then, the explanation appeared quite complicated, and involved different design, and shapes. Whilst one respondent said he had heard that there are 17 different kinds of tactile paving, very few respondents appeared able to decipher the uses of different types. Tactile paving for the majority of our VI respondents was used as a general alert.

The tactile paving which signals a differentiation between cyclists' routes on pavement / toucan crossings did not seem to be well recognised, with respondents uncertain as to how they would know which "lanes" are for cyclists, and which for pedestrians. This was seen as particularly difficult for guide dog users if the cyclists' lane was on the left and the VI person was walking on its right, where does the guide dog go – in the cycle lane, or push the VI person further to the right into what (off the pavement, into waiting cars)?

Respondents who used long canes complained that with some tactile paving, the ball on the end of the stick got stuck in between the corduroy paving grooves. The other issue for long cane users, and indeed some of those who did not use any cane, was that if the area of tactile paving was too narrow, it could be missed by the cane, or stepped over completely.

11. Preferred and Ideal Crossing Types

In terms of the ideal type of crossing, respondents were fairly happy with the existing pelican crossings: they were familiar, offered a degree of certainty in that traffic must stop at red lights, and there were several ways in which VI people are informed about when it is safe to cross (the beeping and the twirling cone).

The sensor offered by the puffin crossing was seen as providing some additional help, in that the crossing timing would be more reactive to people wanting to cross, both in terms of waiting times before crossing and time allowed to cross. For the majority of respondents, however, the issue with puffin crossings was that no-one seems to know about them, and how they might alter their behaviour if they did know about them. Currently respondents were unaware not only that they exist, but also whether or not they have actually been using them.

Toucan crossings were seen as offering nothing advantageous to VI respondents, and indeed were seen as a retrograde step in that they would generate more difficulties by mixing cyclists and VI pedestrians.

A number of respondents cited crossings in other countries, e.g. Canada, Australia, where there are audio instructions at crossings (cross / don't cross), or count downs to reflect remaining time to cross. The majority of respondents felt these could be useful additions to existing crossings.

The main issue with existing crossings, and pelicans as the most liked representation of controlled crossing, was that they do not always do what they are supposed to do:

- They do not always work (bleeping, twirling cones)
- There is no consistency in how they are set up, e.g. on which side the box with the cone is situated.

In more general terms, what the majority of VI respondents wanted to help them get around was consistency. This means consistency in:

- Where the twirling cone is situated on the box
- The sort, and shape, of tactile paving to signal the start of the crossing
- Straight line crossings
- All crossing to be the same type, pelicans asked for, but with the sensor facility (i.e. puffin crossings)
- No mixing of different types of traffic, i.e. no toucans where cyclists and pedestrians mix.

A number of respondents claimed they had reported issues about crossings, or had campaigned for crossings in particular areas, with some degree of success. The majority of respondents, however, felt that they would not know to whom they should complain, or where they should go to complain.

There was few real differences between guide dog users and long cane users in the way they used crossings (bearing in mind that all of our sample were confident crossing users). Both having been through mobility training, they operated on similar bases, i.e. being alerted by tactile paving, finding the control box, and relying on the twirling cone and beeping sounds to inform them when it was safe to cross. Guide dog users had perhaps an advantage in that their guide dog will alert them to unexpected situations or help them at unfamiliar crossings, and might therefore be more confident in unfamiliar surroundings, but overall their levels of confidence and usage were very similar. Where a difference did occur was between those who had been through mobility training, and those who had not, but still had significant sight loss. Those without mobility training appeared to be less confident in their usage of crossings, particularly unfamiliar ones. Indeed, some of these respondents did not attempt to use unfamiliar crossings on their own.

12. Shared Space

Not all of the respondents were familiar with either the idea, or the reality, of shared space. In locations where shared spaces are already in operation, respondents had usually come across it, without necessarily knowing what it was. There seemed to be no areas of shared space in Glasgow or Manchester, so none of the Glasgow and Manchester respondents were aware of the idea.

VI respondents were not in favour of shared space, where the idea that people should make eye contact with one another, is an irrelevance and impossibility for VI people. Both guide dog users and long cane users felt that the lack of delineation made it more difficult to navigate safely. In Coventry, for instance, there had been so many complaints about no crossing in a shared space that a controlled crossing was reintroduced. Similarly, one of the respondents from the Southampton discussion was campaigning strongly to stop a shared space in Swindon.

One of the key comments made by respondents about shared space was that there needs to be additional training for all users – drivers, cyclist, pedestrians, and VI people, so that everyone understands what is expected of them, and what their responsibilities would be. This awareness issue ran through quite a lot of the discussions in that respondents felt that the public in general was lacking awareness of long cane and guide dog users, and the issues they have. Many respondents mentioned people walking into them, tripping over their cane, getting between their guide dog and them, as symptomatic of peoples' lack of awareness and knowledge.

13. Appendix Definitions of types of crossing

Pelican crossings have red, amber and green light signals for vehicles and a red and green man signal for pedestrians. Pedestrians are required to push a button to operate the crossing and wait for the green man signal (red vehicle traffic light), which gives them right of way to cross the road. There is a flashing green man (amber vehicle traffic light) phase in which pedestrians should not commence a road crossing, but those on the carriageway have time to complete it. The blind and partially sighted pedestrian is considered in the design through the provision of a rotating cone on the base of the push button unit, which turns during the green man phase, and a 'bleeping sound' presented during the green man phase also (except in those situations where this sound could cause confusion between nearby crossings).

Puffin crossings do not have a fixed crossing phase duration. Instead, pedestrians press the button to register an intention to cross. Sensors are used to determine the duration of the green man phase that is required for safe crossing and to detect when the crossing demand is no longer required (e.g. the pedestrian crosses during the red man phase). The use of sensors removes the need for the flashing green man phase of the cycle. The puffin crossing also differs from the pelican crossing in that the red and green man signal is located on the nearside on the pedestrian demand unit. This layout provides pedestrians with a 'stop line' akin to that on the vehicle part of the crossing, at which to wait. The nearside pedestrian signal also offers assistance to those pedestrians who have difficulty detecting it on the opposite side of the roadway. The needs of blind and partially sighted pedestrians are catered for in the same way as the pelican crossing with a tactile rotating cone and a bleeping sound where appropriate.

Toucan crossings are pedestrian controlled crossings which feature an additional, designated crossing lane and push button unit for cyclists (i.e. red and green bicycle symbols are displayed). The separation between the pedestrian area and the cycle lane is communicated to blind and partially sighted pedestrians through the use of corduroy paving on the route leading to the crossing. In the crossing area itself, the designated pedestrian and cycle lanes are identified through painted lines on the crossing surface. The green man signal can be presented on either the nearside or the far side, although the current tendency tends to be to present the pedestrian signals using the style of a puffin crossing. The green phase is concurrent for both pedestrians and cyclists.