



**T**he map stick is a tool developed for informing people who are congenitally deafblind or have other multi-sensory impairments about the length of a journey and how far along a route we might be at any time. This article outlines how the map stick was inspired and developed and discusses different ways it has been used with people who are congenitally deafblind.

## Introduction

Since the Disability Discrimination Act (1995) all service providers have the obligation to offer their services to all people, regardless of any disabilities. This legal responsibility gives rise to a moral responsibility for outdoor practitioners to develop techniques and tools to enable their work in this area to function at the highest standards. The literature reports much work that has been done to develop and design adapted outdoor equipment to enable participation in outdoor and adventurous activities by people with disabilities (Croucher,

1981; Laurence 1988; Swiderski 1989a; Swiderski 1989b; Swiderski 1989c; Thompson & Hitzhusen, 1980). Currently in the UK Equal Adventure continues to develop, design and manufacture innovative adapted outdoor equipment ([www.equaladventure.org](http://www.equaladventure.org)). Other research has focused on disabled peoples experiences using the outdoor environment (Burns, Paterson & Watson, 2009). However, there is still limited research in the outdoor literature about people with complex disabilities, particularly multi-sensory impairments, and what there is, is exploratory in nature (Gibson, 2000, 2005).

## Developing the Map Stick

Sense Scotland works with children and adults who have communication support needs because of deafblindness, sensory impairment, learning or physical disability. People who are deafblind face particular challenges that are more than just a combination of visual and hearing impairments. Aitken (2000, p. 3) highlights three areas that pose challenges for deafblind people:

- finding out information
- communicating with others
- moving around the environment

In relation to outdoor activity sessions all three of these areas can cause problems...

*The Map Stick has different tactile markers on each end and in the middle. This allows any walk, whatever the length to be represented.*

One young deafblind man (S), who has some useful vision, really enjoyed walking, but often became very frustrated and self-abusive before and during walks. We would try and explain where we were going and how long we would be out using BSL, his preferred method of communication, but this did not seem to help. To try and address this I began using maps with S making enlarged copies and marking with a thick marker pen the route we were going to take. He began to show great interest in the map, following the line with his finger and the challenging behaviour decreased dramatically. This is not a difficult situation to understand. If anyone was told they were going for a walk and the information about how long/far the walk was going to be was limited, it is likely to dramatically increase the anxiety level.

The concept of the 'map stick' was developed after working on another mapping project with a congenitally deafblind adult (M). This project revolved around M's interest in maps (M is congenitally deafblind but like S has some useful vision). We began the project by first talking about maps indoors and drawing maps of his table and bedroom. We also used the computer to look at maps of the world and talk about where his sister (who was travelling) was in the world in relation to Scotland. We next moved on to looking at maps of the local area and using an enlarged street map we matched photos of easily distinguishable landmarks (roundabouts, bridges etc) to the map, both while out walking at the locations and then back in M's house. Next we moved on to a new area, the 'Windy Hill' in a local country park. We visited this location on many occasions using an enlarged OS map and photos to explore the area. All the session reports, maps and photos were then passed on to the woodcraft tutor, who over a period of time with M constructed a 3D map of the area (this cross specialism approach is similar to some of the thinking from the new Scottish Curriculum for Excellence). I was then able to use this model with other deafblind people to explore some of the features of, and routes up the 'Windy Hill' both before we left and subsequently once we had returned to retell the story of our route.



This was of real help when working with those who were profoundly deafblind and had no useful vision where regular maps, regardless of the size were of no use.

However, the Windy Hill model is far too big to take out while on the hill and it may be difficult for some people to refer back (in an abstract sense) to it when out on a walk. I wrestled with this problem for some time and came up with the idea of a stick representing the walk. I had used "journey sticks" (Serjeant, 2006) before, during environmental sessions (collecting objects of interest during walks and attaching them to a stick during a walk). This time however, I wanted a stick we would have with us from the start and this would represent the journey during our walk and my explanations of how far we had to go. I discussed this with the woodcraft tutor and along with a profoundly deafblind man (P) they constructed the Map Stick Mark 1.



The Map Stick has different tactile markers on each end and in the middle. This allows any walk, whatever the length to be represented. In trials with P we always use the same end for the beginning of the walk and then, as we progress I show where we are along the stick. When we stop for a coffee break (the most important part of the outdoor sessions for P!) we are at the middle marker and then we can begin to feel how close we are to the end marker as we near the end of the walk.





After sharing this idea with a fellow professional in the area of deafblindness the map stick has been used in a slightly different way, with more information added prior to an activity beginning as the description below outlines.

A number of visually impaired children (some deafblind) with severe learning difficulties (SLD) came together for joint activities focusing on mobility activities. An adventure playground was set up to be a kind of treasure hunt (with a jungle over the bars, a parrot, etc) and some quite physically dependent children who are beginning to crawl or stagger took part using a map stick for the three parts of the treasure hunt. The first item represents a gold thread, where they found a key, then they moved onto the jungle, where they picked and ate an orange, then to the top of the tree where they spoke to a parrot - and then on to the treasure.

(L. Hodges, personal communication  
November 6, 2009)

## The Future

We are still in the process of trialling the stick and there may be different iterations for different people such as more marks along the length rather than just two halves. There has also been some discussion about its use in trying to mark the passage of time but this has yet to be tried. Nevertheless, it has so far proven to be a good way of imparting information about the length of a walk to people with complex communication support needs. [n](#)

## References

- AITKEN, S. (2000). Understanding deafblindness. In S. Aitken, M. Buultjens, C. CLARK, J. T. EyrE, & L. PEASE (Eds.), *Teaching children who are deafblind: Contact communication and learning* (pp. 1–34). London: Fulton.
- BURNS, N. PATERSON, K. & WATSON, N. (2009). An inclusive outdoors? Disabled peoples experiences of countryside leisure services. *Leisure Studies*, 28(4), 403–417.
- CROUCHER, N. (1981). *Outdoor pursuits for disabled people*. Cambridge: Woodhead-Faulkner Ltd.
- Disability Discrimination Act (1995). London: HMSO.
- GIBSON, J. (2000). Fred outdoors: An initial report into the experiences of outdoor activities for an adult who is congenitally deafblind. *The Journal of Adventure Education and Outdoor Learning*, 1(1), 45–54.
- LAURENCE, M. (1988). Making adventure accessible: innovations in adapted physical education/recreation curricula. *CAHPER/ACSEPL Journal (The Canadian Association for Health, Physical Education and recreation/l'Association Canadienne pour la Santé, l'Éducation Physique et le Loisir)*, 54(3), 10–13.
- SERJEANT, C. (2006). Journey Sticks. *Horizons*, 33, 12–13.
- SWIDERSKI, M. J. (1989a). Outdoor adventure equipment modifications and assistive devices for people with various handicaps: Part one — Land based activities. *Journal of Adventure Education and Outdoor Leadership*, 6(1), 20–22.
- SWIDERSKI, M. J. (1989b). Outdoor adventure equipment modifications and assistive devices for people with various handicaps: Part two — Snow based activities. *Journal of Adventure Education and Outdoor Leadership*, 6(3), 12–14.
- SWIDERSKI, M. J. (1989c). Outdoor adventure equipment modifications and assistive devices for people with various handicaps: Part three — Water based activities. *Journal of Adventure Education and Outdoor Leadership*, 6(4), 23–26.
- THOMPSON, G., & HITZHUSEN, J. (1980). Canoeing and kayaking with individuals with physical disabilities. In G. M. robb (Ed.), *The Bradford Papers Volume I* (pp. 21–36). Bloomington, IN: Indiana University.

## Author's Notes

Joseph Gibson works for Sense Scotland as their outdoor activities co-ordinator. Sense Scotland works with children and adults who have communication support needs because of deafblindness, sensory impairment, learning or physical disability. He has completed a PhD that examined the experiences of two congenitally deafblind men participating in outdoor activities. E: [jgibson@sensescotland.org.uk](mailto:jgibson@sensescotland.org.uk)

## Photographs

Title photo by 'Notsogoodphotography' all others by the author