



International
Orientation & Mobility

Online Symposium

9:00-10:30 AM EST

Title: Analyzing Street Crossings, Part 1

Facilitator: Dona Sauerburger, Certified Orientation and Mobility Specialist, United States

Presenters:

Nandini Menon, TVI, Headstart Education Center, India

Josee Martin, COMS and Independent Living skills Specialist for the Department of Education and Early Childhood Development in New Brunswick, Canada

Denise Guitar, COMS with the New Brunswick Department of Education and Early Childhood Development, New Brunswick, Canada

Kassandra Maloney, COMS, Texas School for the Blind and Visually Impaired, USA

Description: This is Part 2 of this two part presentation. Join a panel of hosts as we analyze intersections from all over the world! After a short introduction to standard street-crossing strategies, we will discuss as a group how effective those strategies would be at each intersection with its unique challenges, and how students could reduce the risks of crossing there.

This part of the two part series will focus on uncontrolled intersections from the following locations:

- United States
- Canada
- India

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Dona Sauerberger, COMS – United States

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International On-Line Symposium January 25, 2018

Uncontrolled Crossings – Part 1

Around the World:

Kassy Maloney, Austin, Texas USA

Josee Martin and Denise Guitar, NB, Canada

Nandini Menon, Bangalore, India

Moderator: Dona Sauerburger, Maryland USA

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Uncontrolled Crossings

Questions / comments (2-3 minutes!) after each crossing presentation

What the heck are we talking about?

Features and considerations of crossings

Dona Sauerburger

- Crossings – get your passport ready!
 - USA - Austin, Texas - Kassy Maloney
 - INDIA – Bangalore - Nandini Menon
 - CANADA – New Brunswick - Josee Martin and Denise Guitar

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What are “uncontrolled” crossings?

Self-Study Guide:

Preparing Visually Impaired Students for Uncontrolled Crossings

www.sauerburger.org/dona/crosscredit



Figure 1 A series of three photos: (left to right) 1. Man starting to walk across a two-lane street to a used car dealer. We can see the stop sign for the street beside him. 2. Woman walking across the last of two lanes with an island between the lanes. About 10 feet to her right, her lane exits a roundabout (lanes go around a large circle). Car is coming from the roundabout and is waiting for her while she looks to her right for cars coming in the next lane. 3. Man crossing a lane of right-turning traffic, starting from an island and going to the curb. A car in the lane is passing him -- on the other side of the island is a 6-lane street with traffic signals.

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When do you cross “uncontrolled”?



Figure 2 Same series of photos as shown in Slide 3.

When it is “clear to cross”

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“Clear to cross”?

To be confident that it’s clear to cross, you need to be able to hear or see all the approaching vehicles with enough warning time!

Warning time: “time from detection to arrival of vehicle”

It’s that simple!

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Compare “Warning Time” to Crossing Time

Was warning time longer or shorter than your crossing time?

Crossing time for half / full street.

Slide 7

Compare “Warning Time” to Crossing Time

ASSESS THE SITUATION

After observing the situation, ask yourself:

Range of warning times: is it long enough to be confident that it is clear to cross when quiet?

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Students need to compare warning times and assess situations

Intuitively!

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Range of warning times not long enough to know whether it’s clear to cross?

SITUATION OF UNCERTAINTY!

Slide 10

Range of warning times IS long enough to know whether it’s clear to cross?

SITUATION OF CONFIDENCE!

Slide 11

Video of Uncontrolled intersection crossing that is uncertain

Slide 12

Video of an Uncontrolled intersection crossing that is confident

Slide 13

Crossings can have Situations of Uncertainty at some times, and not at others.

Roads wet vs. dry

- Parked vehicle blocks sound
- Sound level of “quiet” changes
- Sound level of “quiet”

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“quiet”

- 8 times noisier in cities than suburbs!
- 2 times noisier in suburbs than rural farms!
- “quiet” changes during the day!
- 4 times noisier in afternoon than night

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Video of uncontrolled intersection crossing that varies

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Is this a Situation of Uncertainty?

Timing Method for Assessing the Detection of Vehicles (TMAD)

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Is this a Situation of Uncertainty?

Timing Method for Assessing the Detection of Vehicles (TMAD)

*Self-Study Guide for uncontrolled crossings has **Checklist** for using TMAD and judge if it is a Situation of Uncertainty*

Jolene Troisi, University of Pittsburgh

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Situation of Uncertainty – Now What?

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Is this a Situation of Uncertainty? Now What?

1. Analyze risks. CHECKLIST in Self-Study Guide
2. Decide if the crossing is “safe” (acceptable risk)
3. If not, use alternatives.

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Situation of Uncertainty – Now What?

- Analyze risks. CHECKLIST in Self-Study Guide
- How likely is a vehicle coming?
- Traffic volume and warning time
- If it’s coming how likely will it hit you?
- Factors listed in next slide
- If it hits you, how likely will you be seriously injured or killed?
- Speed (use chart)

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Driver MORE likely to hit you if:

- MULTIPLE lanes
- SPEED of drivers (faster)

Driver LESS likely to hit you if:

- EXPECTING pedestrians
- VISIBILITY good
- ROAD CONDITIONS good
- GROUP OF PEDESTRIANS
- WAITING WITH FOOT IN THE STREET
- USING A CANE
- DRIVERS: community/culture affect likelihood

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Self-Study Guide for uncontrolled crossings

www.sauerburger.org/dona/crosscredit

Explains skills and how to teach them

Example: How to look for approaching vehicles

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Video Uncontrolled intersection scanning

Slide 24

APH Software

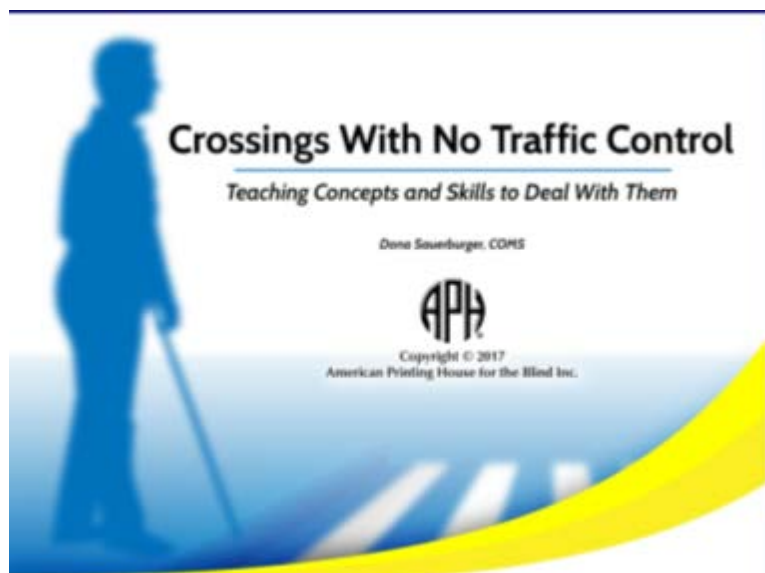


Figure 3 Graphic says “Crossings With No Traffic Control: Teaching Concepts and Skills to Deal with Them; Dona Sauerburger, COMS” with the APH logo “copyright 2017, American Printing House for the Blind, Inc.” and a silhouette of a man with a long cane.

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Self-Study Guide: Preparing Visually Impaired Students for Uncontrolled Crossings

www.sauerburger.org/dona/crosscredit

Crossings with no Traffic Control

Teaching skills individually and in groups

Josee Martin, COMS and Independent Living skills Specialist for the Department of Education and Early Childhood Development in New Brunswick, Canada

Denise Guitar, COMS with the New Brunswick Department of Education and Early Childhood Development, New Brunswick, Canada

This handout includes the content of a powerpoint presentation Josee and Denise presented at the International AER Conference in Little Rock.

How we got there?

- Presentation at AER conference – Little Rock Arkansas in July 2010
- The subject was the reality of what we live in the maritimes - many lives in rural area
- On March 29th 2011, Dona was invited to an O&M session in Halifax
- The street crossing with no traffic sign or signal is a reality in the province of New Brunswick – many of our students live in rural area

How we got there

At Mohawk college – we never learned the street crossing in rural areas

We believed that vision impaired pedestrians have the same rights and responsibilities as all pedestrians

Particular situation in New Brunswick - 2 O&M specialists and 70 students

Preparing the workshop

The premise:

- The students had previously been together
- They had already bonded.
- They were looking forward to learning in a group setting.



Figure 1 Students are on a track doing sit ups while their coaches look on.

Preparing the workshop...

- The students were known to the OM specialist.
- The group was sufficiently homogenous
- Learn skills accessible to all (almost)
- Total inclusion in NB schools

Preparing the workshop...

- Student motivation not always easy.



Figure 2 A line of students cross the street; the girl at the front of the line is thinking, "Boring".

- Learning in group is much more fun, as quoted by Chloé.



Figure 4 A group of students stand side-by-side at the curb.

Preparing the workshop...

- Risk management of the group session was to Education and Early Childhood Department (EECD) standard. Pretty robust.
- We had 3-4 OM specialists on site, depending on the numbers of learners.
- We planned to include more time for instruction, following the first session with our English speaking guest, to be able to meet everybody's language needs.

Pre-workshop

- Prepare the students with total vision loss
- Understand the geometry of the intersection
- Traffic pattern
- Recognise the corner of the street
- Analyse the width of the street
- Alignment before crossing

Pre-workshop

- Time to cross the street
- Maintain a straight line of travel when crossing
- Sidewalk recovery
- Analyse unknown intersection – what control
- Analyse the risk

Pre-workshop- Finding the corner



Figure 5 Video of students finding the corner.

Pre-workshop-Finding the corner

Part 2 of the video

October 2012 - workshop

- One day workshop
- Review of pedestrian rights and responsibilities in New Brunswick, Canada
- Review types of intersection and traffic controls
- Practice in real life natural settings one by one– street crossing at controlled intersections
- Analyse how the street is controlled

October 2012 workshop

- Discussion on street crossing at uncontrolled intersection
- Get outside – analyse situation of uncertainty and situation of confidence
- Determine if the gaps are long enough to cross the street



Figure 6 Students huddle in a circle with their arms around each other.

October 2012 workshop



Figure 7 Video showing students traveling as a group along a city sidewalk.

And then came Dona....

- 18 month gap between our attendance at Dona's workshop in Halifax and the first group session.
- We ran 3 sessions before communicating with Dona Sauerburger.
- Where we thought we had a good understanding of skill development needed for crossing street; its only when we observed Dona working with our students that we had our 'aha' moment.

May 2013 Workshop

Student learned to :

- Recognise situations where they cannot hear or see well enough to reliably predict gaps in traffic
- Assess lanes of traffic, street width and some patterns of circulation .

May 2013 Workshop



Figure 8 Video of the students at the May 2013 workshop.

May 2013 workshop...

Students learned:

- To begin to recognise 'Situation of uncertainty' and situation of confidence.
- To begin to recognise level of risk
- Level of quiet

May 2013 Workshop



Figure 9 Students lined up side-by-side along the curb.



Figure 10 Students lined up behind each other at the curb.

Alternatives to crossing independently- May 2013

<http://www.sauerburger.org/dona/NewB.html>



Figure 11 Five students pause while two of them read a paper during the workshop.

October 2013 workshop

The students learned to:

- scan / glance efficiently in both or all directions to determine if there are approaching vehicles (those with FV)
- determine the probability that a vehicle that was undetected at the beginning of the crossing could reach them before the crossing is finished

We nailed it!



Figure 12 Video of some students along a sidewalk. One of them is using a monocular.

Is that car too close?



Figure 13 Video of the students learning to judge distance.

October 2013 workshop

- How quiet it needs to be to still hear cars from far enough away.

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Figure 14 another video showing Dona working with the students.

Observational outcomes

- More direct time with the students when we combine group sessions with individual sessions.
- The feedback from students is very positive following group sessions.
- The effect of peer learning and mentoring is evident during group sessions
- Students are keener to go on solo lessons knowing they will be better prepared for group sessions.

Observational outcomes

- The students are happier to individually practice skills learned during group sessions, knowing they are not the 'only ones'

Literature:

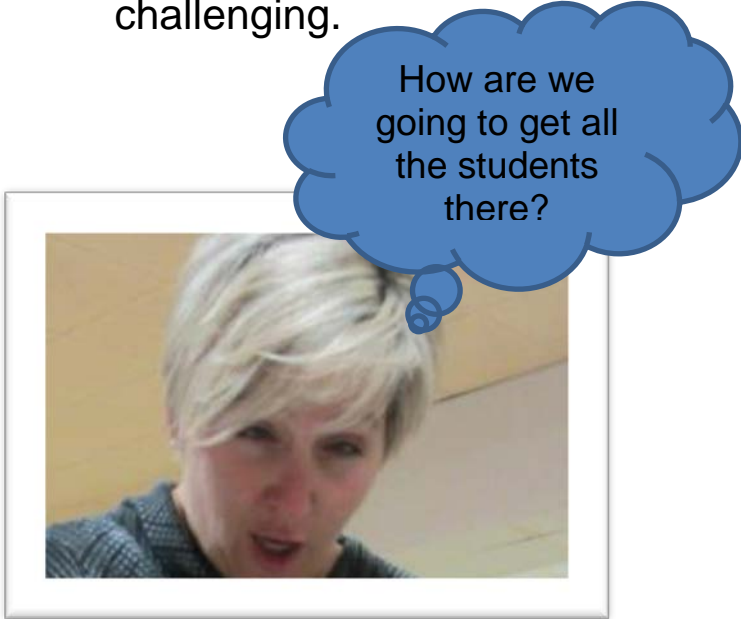
- Articles on teaching OM in groups are far and few in between.
- AER position paper (revised 2013): Standard of practice is to provide 1:1 instruction but group lessons are appropriate and advantageous in some situations.
- OM training using small groups (Higgerty & Williams, 2005): the conclusions we reached we aligned with the ones they reached.

The challenges of group sessions

- Individual assessment is difficult within a group context.

The challenges of group sessions

- Figuring out transportation to and from the course location is challenging.



How are we going to get all the students there?

Figure 15 One of the organizers face looking very stressed; a thought balloon reads, "How are we going to get all the students there?"

The challenges of group sessions

- New students have to be brought up to par before the next group session
- Have to have the flexibility of having sub groups for purpose of developing specific skill sets.

Bibliography:

- Higgerty, M.J. & Williams, A.C. (2005). Orientation and Mobility Training Using Small Groups. *Journal of Visual Impairment & Blindness*, 2005, Vol.99(12), p.755-764.
- AER Orientation and Mobility Division Position Paper: Teaching O&M Through Individual and Group Lessons. Revised 2013
http://oandm.aerbvi.org/position_papers.htm

Texas School for the Blind & Visually Impaired Outreach Programs



Figure 16 TSBVI logo



"This project is supported by the U.S. Department of Education, Special Education Programs (OSEP). Opinions expressed here the authors and do not necessarily represent the position of the Department of Education."

Figure 17 IDEAs that Work logo and US Dept. of Education OSEP disclaimer