The Teacher’s Guide to Orientation and Mobility

Perkins Freedom Mobility LLC
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Definition of Orientation and Mobility:

O&M training can be broadly defined as teaching the concepts and skills necessary for a student to travel safely and efficiently in their environments. Orientation skills enable people with visual impairments to use sensory information to know their location in different settings, and mobility skills enable them to travel in different areas. There are a variety of ways people can travel in the environment. Examples are trailing a wall, using the sighted guide/human guide technique, using assistive devices like the long cane or a wheelchair, using a GPS device or having a dog guide.

Roles and Responsibilities of the O & M:

- Instructs the blind or visually impaired (B/VI) student in the development of skills and knowledge that enables him or her to travel independently, based on assessed needs and ability.
- Teaches the B/VI student to travel with proficiency, safety, and confidence in familiar and unfamiliar environments.
- Consults regularly with sighted peers, parents, classroom teachers, physical education teachers, and/or other special education personnel to assist in home and classroom environmental modifications, adaptations, and considerations and to ensure reinforcement of appropriate O & M skills that will encourage the visually impaired student to travel independently in these settings.
- Works with the teacher of visually impaired (TVI) to conduct the Functional Vision Assessment (FVA) as it relates to independent travel.
- Conducts assessments that focus on both long and short-term needs of the student.
- Includes in the assessment report the needs and strengths of the student and an estimate of the length and frequency of service necessary to meet identified needs.
- Prepares sequential and meaningful instruction geared to the student’s assessed needs, IEP goals and objectives, functioning, and motivational levels. This instruction should be reflected in weekly or monthly lesson plans, as appropriate.
- Prepares and uses equipment and materials for the development of O & M skills. For example using tactile maps, models, distance low vision devices, GPS device, adaptive mobility devices (AMD) and long canes.
- Transports the student with parent permission to various community locations, as necessary, to provide meaningful instruction in realistic learning environments.
- Is responsible for the student’s safety at all times and in all teaching environments while fostering maximum independence when present.
• Evaluates the student’s progress on an ongoing basis with progress reports each 6/9 weeks as required.
• Keeps progress notes on each student.
• Participates in necessary parent conferences and meetings.
• Provides in-service training to regular and special education personnel, sighted peers and parents concerning the O & M needs of the student and appropriate methods and procedures for interacting with the visually impaired person that will foster maximum independence and safety.

Areas of Instruction for the O & M:

• Body imagery
• Laterality
• Environmental concepts
• Gross and fine motor skills related to independent travel
• Sensory awareness, stimulation, and training
• Spatial concepts
• Compass directions concepts
• Sighted guide/human guide procedures
• Basic protective and information gathering techniques
• Orientation skills
• Map skills
• Cane skills
• Use of residual vision
• Low vision devices related to travel skills
• Urban, suburban, and rural travel
• Travel in business districts
• Procedures for crossing streets including how to deal with traffic control signals
• Use of public transportation systems
• Procedures for used of the telephone for information gathering and for emergencies
• Procedures for interacting with the public
• Knowledge and application of community address systems
• Procedures for travel and independent functioning in places of public accommodation
• Daily living skills
• Sensory/motor skills in coordination with the physical or occupational therapist and teacher of visually impaired (TVI)
• Skills for independent living
A Note to the Teacher

From the Texas School for the Blind and Visually Impaired website
(http://www.tsbvi.edu/seehear/summer02/tips.htm)

Dear Teacher,

You are going to have a visually impaired child in your regular classroom? Have you cried or screamed yet? Have you found yourself thinking I don’t know if I can do this? I was there, too, just two years ago. I had little training in any type of special education, knew nothing about the blind, and truly had never considered learning anything about the blind. What a blessing I would have missed had I not been given the opportunity to teach a visually impaired student named Laurel. I was stretched professionally and personally. I learned and grew in ways I did not know were possible. I messed up a lot. I got frustrated a lot at first but then it began to feel natural, and easier. Be patient with yourself. Realize that this is a new challenge, but such an exciting one! Here are a few of the things I learned that I would like to share with you... when you find the time to read this lengthy letter!

Remember that this child is just a child. A child with some special needs which will take time for you to understand and to meet. A child who will help you to learn about his or her special needs. A child who might laugh louder and sillier than the best class clown you can imagine. A child who might be especially reserved. A child who will have a personality, fears, and strengths. Just like every other child you have ever taught. A child who may get in trouble just as often as the others. Perhaps even more at times... because of frustration or lack of visual stimulation or even for a reason you can’t put your finger on. A child who might be exceptionally well-behaved, so much so that you almost rejoice when he begins to come out of his shell and talk with peers more. In either case, or somewhere in between, this child is still just that. A child. Blind? Yes. But still, just a little kid who wants his teacher to like him and wants to please you. Be gentle. Be understanding. Be firm. Be real.

Your visually impaired child will not see the way you see, but let me assure you that he or she will see. You will be amazed at the way this child views the world. You will learn to slip things into his hands so that he might “see” the rock or the coin or even the caterpillar with his fingers. Those will be hands you’ll never forget, hands that reach out to know life as the sighted world says it is. Hands that appreciate soft and smooth, rough and prickly as only the blind can. Hands that one day shyly sneak to touch the bracelet on your arm or the plastic clip in your hair. Hands that will produce, in time, a magical language all their own. A language of raised dots which will open doors for this child. Doors like reading and writing, and perhaps college or even graduate school one day. Braille will become a regular part of your classroom. Embrace it. All of your students will enjoy learning a little bit about it. Teach them to value learning differences rather than fear them. Treat the braille writer and the other VI equipment with no more special attention than you treat pencils or computers. They are tools.

This child who will enter your room with a cane, and whose eyes may not look just like your eyes, and whose materials will have to be different, needs you. She does not need you to baby her, or to do everything for her. She especially does not need you to point out her differences to the class on a regular basis by offering her a special invitation to do things or an extra chance before you sign her behavior sheet...because she’s blind. She does need you to train your class to be helpers when she asks for help, or when help is appropriate. She needs you to model for her peers the ways in which she should be treated. She needs it to be O. K. to be blind in a classroom full of sighted students, because this child will live in a world full of sighted people for a lifetime... and that lifetime cannot wait to start until after she leaves your class.
Having a visually impaired student will challenge you to a new level as a teacher. You will “tell” pictures, or get your sighted students to help you. You will say more as you point to objects. You will verbalize more. When you hold up a picture or make a gesture or write words on the board, your VI child will sit waiting until you take the time to say it. Say everything! It only takes a little more effort, and soon it will be second nature.

Don’t be afraid of using sighted words with the unsighted. For example:

- “See ya tomorrow”
- “Look at this!”
- “Did you see Star Wars?”
- “Who watched the landing of the space shuttle on TV?”

Your blind child will use these words, too. Remember that these types of phrases are just our cultural “lingo.” Your VI student will not take you literally when you ask if he saw the special about polar bears on the Discovery channel. You both know he didn’t “see” it, but be ready for an earful if his TV was on during the show about polar bears.

I am certain that just as all regular ed students are different from one another, all VI students are not the same. Your student will be different in many ways from my VI student. I hope, however, that some of the ideas I have included here will put your mind and your heart at ease. You will probably feel stressed at times. That is a great sign! That means that you are an effective teacher who cares about children, who seeks to be the best teacher you can be, and who truly desires that this special needs student be successful in your regular ed classroom.

Lean on the VI team. They are highly trained. They are supportive and understanding. They know that this assignment is not your every-day assignment. They know also that blind children learn best alongside their peers. They are excited that the VI child is able to be in your classroom. Ask the VI specialists questions. Jot them down during the day and stick them in their mailbox. Make them your teammates. They will be so much help for you! Never worry that they are there to analyze your teaching or your handwriting or your organization. They are there to make learning possible for that child in your class who needs an extra pair of eyes watching out for them, teaching them things we do not know as regular educators. Along the way, they will teach you many things. Don’t even try to learn everything at once. And if they start to overwhelm you, just tell them that you are getting overwhelmed. They will do everything they can to decrease your stress! Be courteous with them. Realize that their caseloads are high and that they are not able to be in all places at one time.

May you take a deep breath. May you whisper a prayer. May you look forward to meeting and teaching a very special child with some very special needs. The rewards will be like none other you have known. May you have a wonderful year!

Sincerely,

Emily Biggers
Teacher of the Visually Impaired
Birdville Independent School District
Tips for Working with a Visually Impaired Student

**Communication and Social Skills**

- Identify yourself
- Use the student’s name
- When talking in a group/classroom, address people by name
- Explain to the student about what is going to happen
- Explain sudden noises
- Don’t shout. People who are blind or visually impaired are not deaf
- When seating a student, guide their hand to the back of the chair and allow them to seat themselves
- Talk about what you are doing
- Show the student where things are placed and let the student pick up and feel objects, where appropriate
- Don’t move objects without telling the student
- Don’t leave doors 
- If you are leaving, tell the student where you are going, who is still with them and when you will be back
- Give clear directions, don’t talk about “here” and “there”
- Speak directly to the student, not through another person
- It’s OK to use words like “look” and “see”
- It’s OK to refer to color when talking to the student
- Let the student have hands-on experiences whenever possible. Don’t force the student to touch new things if they are unsure about them
- Ask if the student needs help rather than assuming. The student needs to become independent
- Don’t leave the student unless they know where they are
- Don’t push or steer the student, let them take your elbow (sighted guide/human guide technique)

**Discipline**

Blind children are not different from their sighted peers in regards to discipline. They too, require a structure that is well defined with consequences for misbehavior. This is crucial if we are to help a blind child function successfully within any environment. Please treat them like any other student!
Reading the Blackboard

- Seat the student near the board (within 3 to 5 feet) and in a central location, but within a group of students
- Verbalize as you write on the board
- If possible, provide a copy of what you have written on the board to the student
- A clean board makes a better contrast and is easier to read

Illumination

- Light intensity can be regulated by adjusting distance from the window or light source
- Artificial lights should be used whenever brightness levels become low in any part of the room
- Avoid glares on working surfaces (a piece of dark colored paper taped to the entire desk surface diminishes glare off the desk)

Seating

- Avoid having students work in their own shadows or facing the light
- Students may need to change their seats whenever they desire more or less light

Contrast

- Dry erase boards used with dark markers offer better contrast
- Soft lead pencils and felt-tipped pens with black ink are recommended for use on unglazed, light and tinted paper
- Good contrast and white space between lines of print offer the best viewing comfort for lengthy reading assignments
- Avoid using red, orange and yellow on Smartboards

Orientation and Mobility

- Allow student to explore your room and whenever you make any major changes
- Show student where their desk is located, where materials are located and where to turn in papers
- Point out the restrooms, water fountains, library, office, cafeteria, gym, bus stops and any other locations the student will visit in the school environment
- Don’t hesitate to make a list of questions or concerns for the Certified Orientation and Mobility Specialist

Information compiled from the Texas School for the Blind and Visually Impaired Website

www.tsbvi.edu
Authors: Crissy Cowan, TVI; Vision Australia
O & M Techniques

Sighted Guide/Human Guide Technique

1. The guide approaches the traveler and introduces him/herself. The guide asks the traveler if they would like to go sighted guide. The traveler can either accept or refuse aid depending on their particular need. If the offer is accepted, the guide should extend one arm and lightly touch the traveler’s arm with the back of the hand.

2. After initial contact is made, the guide moves into position alongside of the traveler. It is the traveler’s preference on which side of the guide they want to be on. The traveler extends the elbow out so the traveler can easily locate the guide’s arm. The traveler’s thumb is positioned just about the elbow on the lateral side of the guide’s arm with the remaining four fingers on the medial side, in a grip that is secure, yet comfortable for the guide (like holding a can of soda). The traveler’s upper arm is positioned parallel and close to the side of his/her body to avoid drifting. The shoulder of the traveler’s grip arm is directly behind the shoulder of the guide’s gripped arm.

3. After establishing a relationship and establishing proper arm grip, the traveler stands facing the same direction as the guide, approximately one-half step behind the guide. The shoulder of the traveler’s arm is directly behind the shoulder of the guide’s gripped arm.

The Diagonal Cane Technique

The diagonal cane technique is used in familiar indoor areas, in which the cane is held in one hand and is positioned diagonally across and in front of the body.

1. The cane is held using the standard grip. The hand is positioned along the shaft so that when held diagonally across the body, the cane will extend about an inch beyond the body on both sides.
2. The hand is held forward and just to the outside of the hip.
3. The arm is flexed at the shoulder until the hand is approximately at waist height and forward of the body by 10 to 12 inches.
4. The forearm is inwardly rotated until the palm of the hand is facing down.
5. The shaft of the cane is positioned diagonally across the body from the hand grasping the cane to the tip.
6. The tip is positioned forward of the grip and approximately 1 inch beyond the outside to the shoulder.
7. The tips of the cane may be raised just about the floor to avoid sticking in carpets or cracks, or kept in contact with the floor and slid along the surface.
8. The cane may be held in either hand depending on the preference of the traveler and expected placement of objects in the path of travel.

The Touch Technique (Two-Point Touch Technique)
A specific cane technique used by travelers with visual impairments in outdoor and unfamiliar indoor areas. The cane is swung from side to side, low to the ground, touching down at each end of the arc.

1. The cane is held in the standard grip. The top of the cane’s grip should come to rest at the tip of the palm.
2. The arm is flexed at the shoulder until the hand is at waist height. The arm is fully extended in a firm position, and the elbow is flexed slightly; the upper arm may rest against the body.
3. The hand is positioned at the center of the body.
4. The wrist is outwardly rotated so that the prominent bones at the base of the thumb face upward and the back of the hand faces the side.
5. The cane is moved from side to side by the flexion, extension, and hyperextension of the wrist. This movement describes an arc with the tip, which touches the floor approximately 1 inch outside the widest parts of the body. The tips is raised slightly as the cane moves from one extreme to the next, touching the floor only at the end of each arc.
6. The cane movement is synchronized with the feet, resulting in an alternating foot-cane pattern. As a result, the cane strikes the floor in front of the foot that is back.

The Constant-Contact Technique
A standard cane touch technique in which the cane tip remains in contact with the ground at all times.

1. The cane is gripped with the index finger pointed down (along the flat side of the grip) with the rest of the fingers and the thumb wrapped loosely around the cane grip. The arm and the cane should form a straight line. The arm is held so the wrist is at waist height away from the body. The elbow should be flexed slightly. The hand is held at the midline of the body.
2. The cane is moved from side to side by flexing the wrist. The tip maintains contact with the ground at all times and is moved to approximately one inch outside each shoulder.


Ascending Stairs
Going up stairs.

1. The cane is positioned vertically as the traveler walks squarely up to the steps while sliding his/her hand down the shaft to position of functional manipulation.
2. Maintaining the cane in a vertical position against the base of the step, the traveler moves the cane horizontally along the base of the step to either side to the full extension of his/her arms, and returns the cane to a position in front of his/her body midline.
3. The cane tip is moved from the base to the edge of the first step.
4. The tip is moved from the edge of the first step to the base of the second step.
5. Perpendicular alignment may be facilitated by the traveler contacting the base of the steps with the toes of both feet.

Descending Stairs
Going down stairs.

1. The cane is brought to the center of the intended path against the edge of the first step, or the cane remains in the position where it dropped off and is held against the edge of the first step.
2. The traveler advances and squares himself to the edge of the first step.
3. The cane remains vertical and, with the cane, the traveler checks horizontally to either side to determine his/her position. The tip is brought back to the edge of the first step and then lowered to the tread of the second step.
4. The cane is then slid forward to the edge of the second step.
5. The traveler may step up to the cane with his/her toes at the edge, or remain back as preferred.

Trailing Technique

1. The traveler is positioned parallel and near the surface to be trailed. Creating the desired line of travel.
2. The arm nearest the surface of the wall is flexed at the shoulder until the hand contacting the wall is about waist height. The hand is projected forward providing some reaction time and positioned at about the height of the handrails and doorknobs.
3. The hand is rotated and the palm is cupped slightly with the back of the hand angled toward the wall and the finders are slightly flexed, kept close together and relaxed. This is done to allow the fingers to absorb the shock of contact with objects along the wall, while avoiding the possibility jamming fingers or having doors closed on them.
4. Contact with the trailing surface is maintained with the ring and little finger. A traveler wearing rings on these fingers may wish to rotate the ring so that it is on the palm side of the hand for safety.
5. Light contact is maintained while the traveler proceeds along the wall, mentally projecting a line parallel to the trailing surface.

Shorelining
The act of using a cane to follow a border by alternately touching the surface being walked upon and the differing surface material to the side of the path.

1. The traveler locates the shoreline.
2. The traveler uses foot or cane tip to establish a parallel direction with the shoreline.
3. The rest of the body is then positioned accordingly in a perpendicular position.
4. The traveler extends the cane forward so that the tip is in contact with the edge of the shoreline.
5. The traveler modifies the basic touch techniques by utilizing a spring action with the arm and increasing the arc slightly on the side of the body closest to the shoreline.
6. The cane tip alternately contacts the walking surface and the shoreline.


Squaring Off Technique

For perpendicular alignment:

1. The traveler will place his/her backside and shoulders flush against a surface such as a wall or a doorway.
2. The traveler will project a straight line of travel from his/her midline that is perpendicular from the surface used for alignment.

For parallel alignment:

1. The traveler will position him/herself laterally to an object or sound.
2. The traveler will project a straight line of travel parallel to the object or sound he/she has aligned.

Common Terminology Used by Certified Orientation and Mobility Specialists

1. **Landmarks:**
   Objects, sounds, odors, temperatures, or tactile or visual clues that are easily recognized, are constant, and have discrete, permanent locations in the environment that can give a traveler unique, specific information about the individual’s location in space. For example, classrooms, bathrooms, stairwells, etc.

2. **Clues:**
   Objects, sounds, odors, temperatures, or tactile or visual clues that are easily recognized, are not constant, and can be moved to different locations in the environment that can give a traveler unique, specific information about the individual’s location in space. For example, trashcans, tables, chairs, rugs, etc.

3. **Parallel:**
   Identifying objects or sounds that are next to the student.

4. **Perpendicular:**
   Identifying objects or sounds that are in front of or behind the student.

5. **Scanning:**
   The systematic use of head and eye movement to search for targets.

6. **Shoreline:**
   The border between the area being walked upon and the surrounding area. For example, a wall, edge of sidewalk, curb, etc.

7. **Tactile map:**
   A map on which information is perceptible to touch.

8. **Tracking:**
   Visually following a moving object.
9. Veer:
   Divert from an intended, straight line of travel. For example, veering while walking on a sidewalk or in the hallway.

10. Trail a wall:
   While walking parallel to a wall, the traveler will use the closest hand to keep contact with wall. The hand will be located in front of the traveler and the wall will be touching the backside of the hand.


Certified Orientation and Mobility Specialist Contact Info

*Place business card here*