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The Early Tactile Learning Profile

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Last year, the [Spring 2021 issue of TX SenseAbilities](#) featured two articles on literacy for students who have visual impairments, “[Literacy for Little Ones](#)” (pp. 20–24) and “[Aidan’s Story: An Alternate Path to Braille and Literacy](#)” (pp. 25–32). Both articles addressed the unique literacy needs of students who are tactile learners. The TSBVI Curriculum Department and Outreach Program have collaborated on another literacy project and are proud to share their newly created checklist of tactile skills, the Early Tactile Learning Profile (ETLP). It is hoped that the ETLP will help teachers and families develop a tactile profile of their students that will identify and address the tactile skills needed for literacy success.

Guiding Principles

The collaborators who participated in the creation of the Early Tactile Learning Profile are Ann Adkins, Scott Baltisberger, Sara Kitchen, and Debra Sewell. As long-time Teachers of Students who have Visual Impairments (TSVIs), all of us have known students who struggled with the tactile skills needed for learning to read braille. We all have had parents and educators ask us why a student wasn’t reading braille. As we explored answers to this question, we discovered some common principles that guided us. We believe that:

- Every tactile learner is potentially literate.
- Students function along a fluid continuum of motor, tactile, conceptual, and emotional skills.
- These are not disconnected skills. They are sequential, contingent, and interdependent.

We also believe that tactile literacy can take many forms. While most people recognize braille reading and writing as types of literacy, some may not be aware of other kinds of tactile literacy, such as real objects, textures, and tactile symbols. There are many skills that are the precursors for tactile literacy, such as shared attention, turn-taking, and gestures; braille can be either contracted or uncontracted. We believe that all of this is literacy and that all learners can be literate at their functioning level. While some of these forms of literacy may seem to be rather unconventional, and some students may be considered to be “non-traditional tactile learners,” we disagree that such students are illiterate or “non-readers.” Non-traditional tactile learners could include students with multiple impairments who are not (and may never be) readers as we think of in the traditional sense (for an example of a “non-traditional tactile learner,” see “Aidan’s Story” above). It is imperative that educational teams find ways for these students to develop literacy skills.

Other important beliefs:

- Educational teams must identify where students are functioning along the continuum of tactile skills development in order to guide them on their path to literacy.
- In order to encourage student movement along this continuum, educators and families must systematically promote and provide increased opportunities for movement, interaction, and stimulation to children who will be tactile learners.
- These tactile skills are the foundational skills for pre-braille.
- It is important to support the development of these functional skills; they are essential for living as a tactile learner.

The Development of Tactile Skills

The development of tactile skills is dependent on the development of both gross and fine motor skills. Gross motor skills (large muscles) develop first and provide the foundation for fine motor (small muscles) development and refined tactile skills. Tactile skills are generally acquired in a sequence from gross to fine motor, concrete to abstract, and from an awareness and attention stage to understanding and application. It is critical that a broad range of tactile skills be mastered at each level of the sequence before moving on to the next level. The development of tactile skills should also be combined with concept development and language acquisition in order for students to acquire the skills for learning and literacy.

The acquisition of tactile skills does not always occur at the same time for all children, however, or in the same sequence. Tactile skills, especially at the earliest stages, are interrelated with other developmental areas. Some of these connections are obvious, such as how fine motor development can affect tactile skills. Others are less obvious, such as the impact of emotional development. Since skills are interrelated, a student's overall cognitive, emotional, and physical development may have a significant impact on how and why a student uses their hands. Medical factors can also influence tactile skill development. For students whose primary or secondary learning channel is tactile, an understanding of the foundational skills for tactile learning is imperative. All children who are in the sensorimotor phase of development are primarily tactile learners (Smith, in *Essential Tools of the Trade*, 2019, p. 300).

In the best of all worlds, children will have meaningful experiences that facilitate the development of motor, tactile, and visual skills, as well as language acquisition and concept development. When children are provided tactile stimuli paired with human interaction, they begin to develop an awareness of and attention to touch. These children need families and professionals to model tactile exploration, using touch to invite the children to share the experiences (mutual tactile attention). This is done using hand-under-hand exploration so that the children have control of their hands and the option to engage or withdraw. As their tactile skills develop, children learn to use and refine them for their own functional purposes: locating, exploring, recognizing, comparing, communicating, and organizing (Smith & Toy, 1998). Students with low vision may also need support in the use of tactile skills to supplement their learning.

The Three E's

The ETLP emphasizes the importance of "The Three E's: Experiences, Evaluation, and Early Instruction." Students who are tactile learners need a rich variety of tactile experiences with the objects and people in their environment from a very early age. Knowing the types of experiences to provide, when to

provide them, and how to ensure that they are meaningful for individual students can be difficult to determine. In order to provide early tactile instruction with appropriate materials and experiences, team members must determine where the student is functioning. This instructional journey must begin with evaluation.

The journey for the ETLP team involved finding appropriate evaluation tools for students who are tactile learners. We know that good instruction depends on good evaluation, but many existing evaluation instruments don't provide meaningful information about the skills and needs of tactile learners. We know that many of them were not designed for students who have visual impairments, especially students with additional disabilities or students who are deafblind. Many evaluation tools are not comprehensive enough and don't address skills at the most basic level. Some don't address skills at the highest level either, which is important for students who will be braille readers. Many also don't address the components of tactile learning in small enough increments that are both observable and measurable, especially for students with multiple disabilities. In addition, the tactile skills sections of many evaluations aren't labeled as such and can be difficult to find because tactile skills are sometimes embedded in other sections of the evaluation. In order to find the skills needed for a specific student, the evaluator may need to look in several sections of the same instrument.

We also know that many of our students experience some "gaps" in their learning, demonstrating skills in some areas but not being able to perform seemingly related ones. Often, students can talk about a skill but can't tactually demonstrate an understanding of that skill. For example, we all knew students who could verbally name the dots of a braille letter, but they couldn't tactually discriminate dot configurations in a braille cell. Or, they could tactually identify specific objects, but they could not tactually discriminate similar objects of a different size or texture. While such splinter skills are not uncommon among students who have visual impairments, most existing evaluation tools do not provide a way to account for such issues. This makes it difficult for evaluators to develop a complete understanding of a student's existing strengths and needs or determine where students are functioning tactually.

Purpose of the ETLP

The frustrations encountered in trying to find appropriate evaluation tools for students who are tactile learners led the ETLP team to create a new observation and evaluation tool. Our goals were to create a tool to help educational teams, including both teachers and family members, develop a better understanding of:

- Tactile learning and tactile skills
- The sequence and progression of tactile learning
- Gaps and splinter skills that are common among students who have visual impairments
- How these gaps in learning can contribute when a student is not making expected progress.

We also wanted to be able to help teams:

- Determine the need for any additional evaluation
- Provide appropriate instruction to meet identified student needs
- Create activities to foster student success with tactile skills and literacy.

Process for the Development of the ETLP

The ETLP collaborators began by closely examining a large variety of existing assessments and evaluation tools for students who have visual impairments, including those with additional disabilities. Some of the instruments we examined were ones that are well known to professionals in the field of visual impairment, including The Oregon Project: For Preschool Children Who Are Blind or Visually Impaired, The INSITE Developmental Checklist: A Comprehensive Developmental Checklist for Multihandicapped Sensory Impaired Infants and Young Children, Lili Nielsen’s Functional Scheme, and Texas 2 STEPS (Successfully Teaching Early Purposeful Skills). We also reviewed research on the development of tactile skills and compiled a list of foundational skills needed for tactile literacy. We used this list to determine a sequence of tactile development milestones as they occur in typically-developing children and organized those tactile skills into a comprehensive and relatively chronological order, acknowledging, however, that all students learn differently and at different rates. We formulated questions to evaluate these skills and formatted the information into charts. We also reviewed instructional resources and materials that address tactile learning and paired these with each skill on the checklist. The result is The Early Tactile Learning Profile (ETLP), a document that we hope will allow teachers and family members to collaborate on the evaluation of their students who are tactile learners and on the instruction of their identified tactile needs.

The Result: The Early Tactile Learning Profile

The Early Tactile Learning Profile is an observational checklist to assist in determining the need for additional evaluation and instruction of specific tactile skills. It can be used to develop a “Tactile Profile” for students with visual impairment who meet any of the following criteria:

- are chronologically or developmentally functioning between the ages of birth to 5 years old;
- have struggled with the acquisition of tactile skills/have not made expected progress;
- may be considered “non-traditional tactile learners” or “non-readers.”

The ETLP should not be the sole source for determining a student’s strengths and needs in relation to tactile development. To gain the most accurate information, multiple evaluators (TSVI, COMS, other staff, family members, etc.) should collaborate to observe the student in a variety of settings and complete the checklist. Ongoing observations may be needed in order to identify whether the student consistently demonstrates a skill. It is important that the student is able to demonstrate the skill in a variety of different settings.

Components of the ETLP

The ETLP contains five (5) sections:

1. The General Introduction—provides basic information on the development of tactile skills, instructions for administering the ETLP, the audience for whom it is intended, and background information on why it was developed.
2. The ETLP Checklist—contains a list of the 32 early tactile skills, a column for the evaluator to answer whether or not the student can demonstrate the listed skill (“yes, no, or don’t know”), and space for the evaluator to take notes.

3. The Evaluation Resources chart—contains a list of the 32 early tactile skills as well as a large column of resources that can be used to further evaluate each skill area. This document should be used if the evaluator answers “don’t know” to any of the questions on the ETLP Checklist.
4. The Instructional Resources chart—contains a list of the same 32 early tactile skills and a list of instructional resources for each question. This should be used if the answer to any question is “no” and instruction is needed related to a specific tactile skill. The resources include activities, teaching strategies, and suggested materials related to the specific skills in each question.
5. The References document—sources for all the evaluation and instructional resources used in the ETLP. An Additional Resources document is also included, which contains a list of other important resources on tactile learning that were not specifically used in any of the ETLP documents.

A copy of the Infused Skills Assessment aligned to the Expanded Core Curriculum (ECC) by Region 10 Education Service Center is also included with the ETLP documents.

Administering the ETLP Checklist

When completing the checklist, if the answer to a question is “yes,” meaning the learner has the skill and can generalize it to other environments without prompting, the evaluator should mark the answer, add any pertinent notes, and move on to the next question. For a “no” answer, refer to the Instructional Resources Chart for the corresponding question to find suggested materials and resources for instruction of that skill. A “don’t know” response would mean that the evaluator hasn’t witnessed the student demonstrating that skill and needs to provide the student with additional evaluation. This is one reason why it is so important for multiple members of the student’s educational team to complete the checklist—if one member of the team hasn’t observed the student demonstrating a skill, it is possible that another member has. The decision to provide additional evaluation or instruction should be determined by the combined results of all the evaluators after the entire checklist has been completed. If more evaluation is needed, the Evaluation Resources Chart has a detailed list of evaluations tied to each question.

Conclusion

The end product of completing the ETLP checklist is the creation of a tactile profile of the learner that identifies the student’s strengths and needs in relation to tactile skills. Teams should not be surprised if they discover some gaps in their students’ performance. As described above, it is not uncommon for students who have visual impairments to exhibit some skills but fail to demonstrate mastery of similar or related skills. This is another reason why it is so important to complete the entire checklist before stopping or making decisions about programming. The end result is a detailed student profile that not only helps document specific tactile skills, but it can also guide the student’s ongoing educational plan.

The [Early Tactile Learning Profile](#) is available as a free online resource that can be downloaded from the Curriculum Free Publications page of the TSBVI website. For more information, please contact Debra Sewell, TSBVI Curriculum Director (sewelld@tsbvi.edu), or any of the other ETLP developers: Ann Adkins (adkinsa@tsbvi.edu), Scott Baltisberger (baltisbergers@tsbvi.edu), and Sara Kitchen (kitchens@tsbvi.edu).

References

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