The Sensory Integration and Praxis Tests
Illuminating Struggles and Strengths
in Participation at School

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ABSTRACT
Occupational therapists and occupational therapy assistants who work with school-age children often are called on to help uncover reasons that will explain limitations in a child's ability to perform age-appropriate occupational roles in satisfying and successful ways and to develop appropriate, cost-effective treatment plans. Occupational therapy practitioners who provide services within the school setting have the additional challenge of ensuring that their intervention programs specifically support the child in fully accessing the educational environment as mandated by law.

During the initial evaluation phase, occupational therapists must select appropriate assessments that will illuminate the underlying issues that contribute to a presenting problem and that translate into functional outcomes. When the school-age child's limitations appear to be related to problems with sensory integration, occupational therapists have a variety of assessments and strategies from which to draw. One of these, the Sensory Integration and Praxis Tests (SIPT), has been cited in the sensory integration literature as the “most comprehensive and statistically sound measure for assessing some important aspects of sensory integration” (Bundy, Lane, & Murray, 2002, pp. 170-171) and is considered the “gold standard” for evaluating sensory integration and praxis (Schaaf & Roley, 2006, p. 25). Although the administration and interpretation of the SIPT requires understanding sensory integration theory and considerable practice and skill (Ayres, 1989), it is important for all occupational therapists and occupational therapy assistants who work with children to understand how the information about sensation and praxis gleaned from the child's performance on the SIPT relates to function within everyday settings, including the home, school, and community.

LEARNING OBJECTIVES
After reading this article, you should be able to:
1. Differentiate the 17 subtests of the SIPT.
2. Identify the functional skill areas assessed by the SIPT.
3. Match issues identified by the SIPT to likely strengths and difficulties in occupational performance within the home, school, and community settings.

INTRODUCTION
A. Jean Ayres, PhD, OTR, developed the theoretical principles, assessments, and intervention strategies of the sensory integration framework over a period of nearly four decades. The Sensory Integration and Praxis Tests (SIPT) evolved from earlier versions of similar measures as well as new tests and provides insight into the underlying sensory processing and praxis abilities of children. During the standardization process, items were carefully selected for their ability to discriminate between children with typical development and children with sensory integration issues (Ayres, 1989).

Although the SIPT does not measure intelligence or academic performance, it offers a standardized method to assess praxis and the various foundational aspects of the tactile, proprioceptive, and vestibular systems that underlie irregularities often seen in learning or behavior (Ayres, 1989). In fact, relationships of sensory integrative functioning to academic achievement in elementary school children have been found. Specifically, when statistically controlling for the influence of intelligence, Parham (1998) found that praxis and visual perception at 6 to 8 years of age were significant predictors of arithmetic and reading 4 years later. Detailed discussion of sensory integration theory, analysis of clinical reasoning skills, and in-depth discussion on the administration and interpretation of the SIPT are beyond the scope of this article.

However, all children rely on important basic sensory-perceptual and practice functions in order to develop patterns, skills, and abilities that underlie successful engagement and participation in occupation. Understanding the critical importance of sensory integrative function to occupation is one of the unique contributions that occupational therapists can offer in team-based intervention and educational programs, and therapists often find themselves in the position of illuminating perplexing and misunderstood behaviors and performance. Familiarity with the SIPT and its relationship to function can assist occupational therapists and occupational therapy assistants in explaining these basic sensory-perceptual and practice functions.

OVERVIEW OF THE SIPT
The SIPT consists of a group of 17 tests and was standardized with a normative sample of nearly 2,000 children living in the United States (with a subsample from Canada) who were between 4 years, 0 months, and 8 years, 11 months, of
The children in the SIPT normative sample represented the ethnic population of the United States at the time of standardization, and the sample included children from nine geographic U.S. locations within both rural and urban communities (Ayres, 1989). The SIPT can be used in conjunction with other methods of assessment, including observations, sensory histories, interviews, and evaluation of related functions (Blanche, 2002), in order to consider context, occupational/activity, and client factors in accordance with the Occupational Therapy Practice Framework: Domain and Process (American Occupational Therapy Association, 2002). As previously mentioned, the SIPT measures several different aspects of praxis and many features of the vestibular, proprioceptive, tactile, and visual systems, but it does not measure olfaction, taste, or audition (Ayres, 1984). All of the tests of the SIPT are administered individually, and it is recommended that the SIPT be used in its entirety. In addition to scoring the child on accuracy within each of the tests, some of the test items require the examiner to track time expectations, hand use, and some specific dimensions of writing. The 17 tests of the SIPT and their relevance to school performance are described in Figure 1 on page CE-4.

APPLICATION OF THE SIPT
When uncovering the underlying issues affecting functional performance within the school setting, occupational therapists must use their clinical reasoning skills to navigate through the myriad of possible problems influencing the skill or behavior observed. A particular functional impairment, such as poor handwriting, may be the result of diverse underlying issues, each dependent on the child’s individual system. Some of the potential problems underlying difficulties children experience at school could include, but are not limited to, issues with strength, range of motion, motor control, visual acuity, hearing ability, language skills, cognitive functions, sensory integration and praxis abilities, emotional issues, or experience and opportunity for practice. To explore how awareness of the SIPT and its relationship to function can assist the occupational therapist in determining whether a performance deficit at school may be related to poor sensory integration and praxis skills, we present the following case, which often is encountered within the educational setting:

Case Example: Why Can’t Maverick Write Well?
Maverick is a 7-year-old second grader who has been presented with instruction for handwriting as part of his general education experience. Despite various teaching approaches used, Maverick is becoming more and more frustrated with the amount of time it takes him to write. His writing is messy and illegible, and he becomes angry when encouraged to “just keep practicing.” Although his teacher tries to be understanding, Maverick is acutely aware that his writing is poor compared with that of other students. He has begun to provide only very short written answers during assignments, and the educational team now believes that Maverick is not demonstrating his knowledge when a written response is required. What’s going on?

An occupational therapist assessed Maverick with a variety of assessment strategies and the SIPT. Using her clinical reasoning skills, the therapist considered all of the possible explanations for handwriting problems; interpreted Maverick’s scores on the SIPT; and analyzed the other assessment data gathered, including a sensory history and observations of performance inside and outside the classroom. To highlight the occupational therapist’s clinical reasoning process and illustrate the myriad of possibilities she explored before arriving at her conclusion, Table 1 on page CE-3 illustrates some of the underlying components of handwriting and how poor performance in these areas might influence function. It is imperative to note that not all issues within the sensory integration and praxis foundational skills mean the same thing. As Table 1 shows, many of the underlying sensory integration issues of handwriting are diverse and may require a variety of intervention models to best remediate them.

As Table 1 illustrates, the occupational therapist assessing Maverick considered many possible reasons for problematic handwriting before deciding how to proceed. Using her clinical reasoning skills and all the data collected through observation, interview, and use of a sensory history, she discovered that Maverick’s barrier to writing was a result of postural-ocular issues influenced by poor vestibular processing. When explaining Maverick’s current level of functioning to his parents and the educational team, the occupational therapist was able to articulate the underlying reasons for his declining school performance by drawing on her understanding of how sensory integration affects handwriting. This, in turn, allowed her to recommend the most appropriate and efficient level of occupational therapy services to assist Maverick in accessing and benefiting from his educational environment.

Had Maverick’s scores on the SIPT and the accompanying evaluation data been different, the occupational therapist may have suggested an alternate focus of intervention. For example, if Maverick demonstrated a more discrete problem with visual-perceptual skills, the therapy program might have emphasized more direct work on visual discrimination, visual memory, and spatial organization along with strategies to compensate for the aspects of these deficits that seemed to persist over time. Alternatively, if the assessment data suggested a problem in strength or range of motion, the occupational therapist may have chosen another set of recommendations. Fully understanding the performance components that underlie functional skills from a variety of theoretical perspectives, including sensory integration and praxis, is therefore crucial to developing appropriate and effective intervention.

CONCLUSION
Occupational therapists and occupational therapy assistants who work with school-age children are called on to provide...
insight into the foundational deficits that underlie problems with specific skills, especially those within the school setting. It is imperative that occupational therapists and occupational therapy assistants understand as much as possible about the child’s foundational issues so that appropriate treatment strategies can be designed. Identifying underlying issues, especially when they are related to problems with sensory integration and praxis, affords the opportunity to get at the “root” of the problem so that interventions are precise, effective, and as short-termed as possible. Information gleaned from the SIPT about the school-age child’s sensory processing and practice abilities can assist occupational therapists and occupational therapy assistants in providing best practice and helping the school-age child to participate in meaningful and rewarding occupations.

References

Bibliography

Table 1. Some Underlying Issues and Their Diverse Influence on Handwriting

<table>
<thead>
<tr>
<th>Underlying Issue</th>
<th>Relationship to Handwriting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor visual discrimination</td>
<td>Difficulty perceiving letters and words</td>
</tr>
<tr>
<td>Poor figure-ground perception</td>
<td>Difficulty identifying letters and words on board or page</td>
</tr>
<tr>
<td>Poor visual-motor control</td>
<td>Difficulty coordinating eyes and hands to form letters and words</td>
</tr>
<tr>
<td>Poor visual praxis</td>
<td>Difficulty initiating and planning actions needed for writing</td>
</tr>
<tr>
<td>Poor tactile discrimination</td>
<td>Difficulty adjusting pencil in hand to achieve appropriate grasp and control</td>
</tr>
<tr>
<td>Poor vestibular processing</td>
<td>Difficulty forming visual construct of letters without adequate tactile contribution to perception of size and shape</td>
</tr>
<tr>
<td>Poor proprioception</td>
<td>Difficulty assuming and maintaining position of fingers, hand, wrist, elbow, shoulder, and trunk</td>
</tr>
<tr>
<td>Poor vestibular processing</td>
<td>Difficulty using appropriate pressure</td>
</tr>
<tr>
<td>Poor bilateral coordination</td>
<td>Difficulty stabilizing paper with nondominant hand and writing with other hand</td>
</tr>
<tr>
<td>Poor motor planning (praxis)</td>
<td>Difficulty initiating and planning actions</td>
</tr>
<tr>
<td>Poor motor planning (praxis)</td>
<td>Poor management of materials on desk</td>
</tr>
<tr>
<td>Poor sensory modulation</td>
<td>Irritation at sensory elements of task (e.g., sound of pencil lead on paper, feel of paper on hand, light reflections in classroom, noisy classroom environment, other children walking around room)</td>
</tr>
<tr>
<td>Decreased motor control</td>
<td>Strength and endurance limiting ability to hold onto the pencil or keep body upright in chair</td>
</tr>
<tr>
<td>Lack of practice or experience</td>
<td>Unfamiliarity with how to use pencil</td>
</tr>
<tr>
<td>Auditory processing/language comprehension</td>
<td>Unfamiliarity with where to start and end letters</td>
</tr>
<tr>
<td>Emotional issues—poor self-esteem or perfectionism</td>
<td>Difficulty understanding the task</td>
</tr>
<tr>
<td>Emotional issues—poor self-esteem or perfectionism</td>
<td>Difficulty expressing thoughts using written words</td>
</tr>
<tr>
<td>Visual impairment</td>
<td>Fear of being judged, limiting desire to express thoughts on paper</td>
</tr>
<tr>
<td>Visual impairment</td>
<td>Fear of failure and wanting everything right, limiting desire to even try</td>
</tr>
<tr>
<td>Visual impairment</td>
<td>Difficulty accurately seeing paper and what is being written</td>
</tr>
<tr>
<td>Visual field impairment</td>
<td>Visual field impairment resulting in visual neglect and inadvertent avoidance of written tasks</td>
</tr>
</tbody>
</table>

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**Figure 1.**
**Skills/Foundations Assessed by the Tests of the SIPT and the Significance for the School Setting**

**Test Name: Space Visualization (SV)**

**Test Description**
- **Materials:** Two plastic form boards, one with an egg-shaped cutout and one with a diamond-shaped cutout; four egg-shaped blocks and four diamond-shaped blocks; small pegs.
- **Expected Actions:** Therapist inserts pegs into the form boards in different places, and the child identifies which shape fits the board when given a choice between two shapes. Test items increase in complexity as the test progresses, requiring the child to look carefully and manipulate the shapes within the mind before selecting the appropriate block.
- **Scoring:** Child is scored on accuracy of correct block selection, time, the ability to cross midline, and the preferred hand use. Motor-free visual-spatial perception

**Skills/Foundations Assessed**
- "Mental manipulation" of objects in space
- Amount of time used to respond to task
- Tendency to cross body midline
- Tendency to use preferred hand during a task

**Significance for the School Setting**
The ability to perceive shapes and designs is a foundation skill for reading and writing. Being able to imagine how an object would look in another orientation is needed for tasks such as orienting a gym shirt to reach into the sleeves, moving a chair through a doorway, or placing letters next to each other within a word. Children who struggle on this measure may be likely to show confusion about spatial aspects of many classroom and playground tasks. A high Z score on the time score for this test provides similar data as on the SV test.

**Test Name: Standing and Walking Balance (SWB)**

**Test Description**
- **Materials:** Wooden dowel.
- **Expected Actions:** Child statically and dynamically balances on one or both feet, with eyes open and eyes closed.
- **Scoring:** Child is scored on ability to maintain balance while in assumed positions for a certain period of time.

**Skills/Foundations Assessed**
- Ability to maintain static balance with eyes open or eyes closed
- Ability to perform dynamic balance with eyes open or eyes closed

**Significance for the School Setting**
Children who have poor balance will naturally struggle with many playground activities. Kicking, skipping, jumping, and running all require varying degrees of balance in both static and dynamic positions. Poor balance within the classroom also can lead to difficulty in maintaining an appropriate and functional position in a chair. Stumbling easily between rows of chairs, while standing in line, or within group activities also can lead to misunderstood social interactions. This test also compares balance with eyes open versus eyes closed, which helps with understanding how much the child relies on vision versus vestibular and proprioceptive functions for assuming and maintaining balance.

**Test Name: Design Copying (DC)**

**Test Description**
- **Materials:** Two pencils, DC test booklet with shapes to copy, DC examiner booklet with space to replicate what the child is drawing.
- **Expected Actions:** Child copies figures, using dots as guidelines first and then drawing within specified open boxes.
- **Scoring:** While child is copying figures within the test booklet, therapist replicates what child is drawing, with emphasis on capturing the child’s approach, including the direction in which the child draws, when a new line is started, and the order in which lines are added.

**Skills/Foundations Assessed**
- Ability to accurately copy what is being perceived
- Ability to spatially organize written work within two-dimensional space
- Identifies whether atypical approach issues exist, including jogs, segmentations, reversals, right-to-left errors, inversions, additions to a figure, and use of the boundary of the page as part of the design.

**Significance for the School Setting**
The ability to replicate designs usually is easily understood within the school setting as clearly related to written work. The opportunity to see a child's ability to copy designs on both a dot grid and in an open box provides the chance to see whether that kind of structure helps or hinders performance. Low scores on approach parameters, such as reversals, inversions, or other directionality and spatial elements, often coincide with vestibular and postural ocular difficulties that will likely interfere with efficient copying and writing. Low scores on segmentations and boundaries also will provide clues about how a child perceives and replicates letters, numbers, words, and sentences.

**Test Name: Postural Praxis (PPr)**

**Test Description**
- **Materials:** None
- **Expected Actions:** Therapist assumes one of 17 postures, and child is expected to imitate the posture and hold it for 7 seconds.
- **Scoring:** Child is scored on accuracy of imitated postures and speed of response.

**Skills/Foundations Assessed**
- Ability to rely on tactile and proprioceptive awareness to motor plan how to move body and limbs to imitate observed postures

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Significance for the School Setting
Difficulty with the ability to imitate positions and actions can create significant problems for a student, although it is often missed if not specifically assessed. Within busy classrooms, children not only rely on the teacher’s verbal instructions, but also learn to look for gestural cues from the teacher as well as from peers. Because children are great motivators for one another, those who can imitate easily have the advantage of learning new and novel ways of accomplishing tasks and joining in games.

Test Name: Praxis on Verbal Command (PrVC)
Test Description
- **Materials:** Child-sized chair.
- **Expected Actions:** Therapist verbally requests child to assume each of 24 unusual postures, first in sitting, then in standing.
- **Scoring:** Child is scored on ability to correctly assume posture within a certain period of time.

Skills/Foundations Assessed
- Ability to follow verbal directions
- Ability to plan movements based on verbal instructions
- Ability to rely on tactile proprioceptive awareness to motor plan how to move body and limbs without a visual model

Significance for the School Setting
This test is very helpful, especially when considered in light of other assessments from a speech-language pathologist, to clarify difficulties with language comprehension or auditory processing in light of the motor-planning ability needed to translate a verbal direction into an action. Although some children will have both language and praxis problems, an analysis of the various praxis tests of the SIPT compared with speech and language assessments will often suggest that one or the other functions is the greater concern. Children who understand a verbal direction but who cannot plan some or all of the actions given can appear to be inattentive, disorganized, or even defiant. The time score, again, helps to identify children who can complete an action if given longer than usual time to do so.

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Figure 1. (continued)

Test Name: Motor Accuracy (MAC)
Test Description
- **Materials:** MAC test booklet and two red pens.
- **Expected Actions:** Child draws a red line on top of a preprinted heavy black line, trying to stay on the preprinted line at all times.
- **Scoring:** Child's accuracy is scored on the ability to stay as close as possible to the preprinted heavy black line.

Skills/Foundations Assessed
- Visuomotor coordination
- Ability to cross midline

Significance for the School Setting
Eye-hand coordination is an important function for writing letters, words, and sentences and numbers, equations, and formulas within designated areas. Difficulty in eye-hand coordination also supports actions in many ball activities, such as baseball, tetherball, golf, or tennis. This test also provides data on right-versus left-hand precision that can be useful when hand preference is unclear and an educational team needs to know how best to support a child in developing skilled hand use.

Test Name: Sequencing Praxis (SPR)
Test Description
- **Materials:** None
- **Expected Actions:** Therapist demonstrates a series of hand movements consisting of tapping on the table, tapping the other hand, or tapping the head, and the child is to imitate the sequence precisely.
- **Scoring:** Child is scored on how similar the replicated hand movements are with regard to sequencing and the number of movements performed.

Skills/Foundations Assessed
- Ability to rely on tactile proprioceptive awareness to accurately plan how to move hands and arms in space
- Ability to coordinate the two sides of the body
- Visual, auditory, and kinesthetic memory

Significance for the School Setting
Being able to imitate a series of actions is required in many playground games as well as circle time sing-along activities. Copying or initiating the correct sequence of actions also is needed for many tasks such as washing and drying hands, tying shoes, and completing social studies or science model projects. Children who consistently perform only certain portions of a sequence (e.g., only the beginning or end portion) may have trouble with aspects of visual, auditory, or kinesthetic memory. This test also requires bilateral coordination and can be considered with other measures of this function.

Test Name: Oral Praxis (OPr)
Test Description
- **Materials:** None
- **Expected Actions:** The child imitates the therapist's movements of the tongue, teeth, lips, cheeks, and jaw.
- **Scoring:** Child's accuracy is scored on the ability to accurately imitate the oral motor movements.

Skills/Foundations Assessed
Ability to rely only on tactile proprioceptive awareness to accurately plan how to move the tongue, teeth, lips, cheeks, and jaw in relation to one another

Significance for the School Setting
Like PP, this test helps to identify the ability to copy actions, in this case of the face, mouth, and tongue. Because the child cannot see his or her own actions, performance on this test relies highly on tactile and proprioceptive perception. Poor performance is likely to help explain difficulty with articulation in speaking, eating, the ability to make and interpret facial expressions, and awareness of food or saliva on the face (drooling). Many of these functions carry special significance for social interactions. In a busy classroom, children often will need to interpret the subtle facial expressions of their teachers or peers in order to glean cues about what is happening. When one's own oral praxis is poor, interpreting another's facial actions also may be difficult.

Test Name: Manual From Perception (MFP)
Test Description
- **Materials:** Plastic geometric shapes, stimulus card, shield to occlude vision.
- **Expected Actions:** This test has two parts, both of which require the child's eyes to be shielded. During Part I, the child alternately feels geometric shapes with one hand while using the other hand to identify what is being felt by pointing to its match on a stimulus card. During Part II, the child uses one hand to feel a geometric shape while the other hand finds the matching shape by feeling among a group of five similar geometric shapes.
- **Scoring:** Child's accuracy is scored on the ability to correctly identify the shape being felt.

Skills/Foundations Assessed
- Ability to combine tactile and kinesthetic information, which contributes to the perception of stereognosis
- Ability to sequentially analyze what is being felt to form a higher level of meaning and understanding of the next steps of the task
- Ability to coordinate the tactile and kinesthetic information from both sides of the body

Significance for the School Setting
The ability to identify shape, texture, and size by touch is important for using touch perception to select and use objects without overreliance on vision. The close developmental relationship between vision and touch is seen in this test, and when children struggle with this ability, they are more likely to be inefficient in tasks such as finding and retrieving objects in a pocket, drawer, or backpack. This test also affords the chance to compare the ability to match shapes by touch to a visual form with the ability to match tactile-to-tactile perception of a shape in each hand. Knowing how reliant on vision versus touch a child is in manipulating objects is important at school in order to allow extra time, ensure visual cues when needed, and supplement with verbal cues if appropriate.

Test Name: Kinesthesi (KIN)
Test Description
- **Materials:** KIN test booklet and shield to occlude child's vision.
- **Expected Actions:** While the child's vision is shielded, the therapist places the child's finger on a specific location on the table. After orienting the child to this first location, the therapist then moves the child's finger to another location, asking the child to be aware of how it feels to "move" to this new spot. After approximately 3 seconds, the therapist then returns the child's finger to the first location and asks the child to return the finger to the second location.
- **Scoring:** The child's attempt at returning to the second location is noted for later measurement to compare how close the child was to the specified spot.

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Skills/Foundations Assessed
- Ability to rely on tactile proprioceptive awareness to accurately move hands and arms in space
- Ability to make the appropriate postural accommodations needed to freely move limb in isolation of the trunk

Significance for the School Setting
Awareness of position is another critical function easily missed if not specifically assessed. Assuming and maintaining one's position at a desk, at the lunch table, in line, in the bathroom, and during playground games is an essential aspect of successful engagement in the activities that occur in these situations. Likewise, the optimal position for holding and using school-based tools, such as writing utensils, books, rulers, and scissors, requires accurate feedback of position. Children with poor position sense often invade others' personal space and activities.

Test Name: Finger Identification (FI)
Test Description
- Materials: Shield to occlude child's vision.
- Expected Actions: While the child's eyes are shielded, the therapist touches the child's finger(s) in various spots. The child is expected to touch the finger(s) that was touched by the therapist.
- Scoring: Child is scored on ability to correctly identify the finger(s) that was touched.

Skills/Foundations Assessed
- Ability to rely only on tactile proprioceptive awareness to discriminate which fingers were touched
- Ability to tolerate light touch from another person

Significance for the School Setting
The following three tests of tactile discrimination together provide information that is very difficult to obtain without the SIPT. Tactile discrimination is a vital function for guiding movements, especially precise actions of the arms and hands as well as novel motor planning of the entire body. Touch perception guides actions by helping us to make refined adjustments for coordinated actions.

Test Name: Graphesthesia (GRA)
Test Description
- Materials: Shield to occlude child's vision.
- Expected Actions: While the child's eyes are shielded, the therapist draws simple designs on the back of the child's hand with the finger. The child then replicates, on the same hand, what the therapist initially drew.
- Scoring: The child is scored on accuracy of the replicated drawing.

Skills/Foundations Assessed
- Ability to rely only on tactile proprioceptive awareness to precisely discriminate how the hands are being touched
- Spatial and temporal analysis of passively received stimuli to support the creation of a visual image in the head of what was perceived through touch
- Use of this spatial and temporal awareness to produce a motor response to replicate what was tactiley perceived
- Ability to tolerate light touch from another person

Significance for the School Setting
In addition to the importance of tactile discrimination noted above, this test includes a variety of functions so that it can help to determine what aspect of a skill is of most concern. A low GRA score along with low scores on visual perception or visual praxis tests would support evidence for an underlying issue in this area contributing to difficulty with tasks such as written work. A low GRA score also can occur when difficulty with bilateral coordination and sequencing are present.

How To Apply for Continuing Education Credit:
1. After reading the article The Sensory Integration and Praxis Tests: Illuminating Struggles and Strengths in Participation at School, answer the questions to the final exam found on p. CE-8 by darkening the appropriate boxes in Section B of the Registration and Answer Card, which is bound into this issue of OT Practice following the test page. Each question has only one answer.
2. Complete Sections A through D of the Registration and Answer Card. If the Answer Card is missing from your issue, you may obtain a form online at www.aota.org under Continuing Education, Continuing Education Articles.
3. There is a nonrefundable processing fee to score the exam, and continuing education credit will only be issued for a passing score of at least 75%.
4. Send the card with a check for the appropriate amount (payable to AOTA) or credit card information to:
   American Occupational Therapy Association (CE)
   PO Box 64960
   Baltimore, MD 21264-4060
   Registration and Answer Cards for The Sensory Integration and Praxis Tests: Illuminating Struggles and Strengths in Participation at School, must be received on or before September 30, 2008.

Test Name: Localization of Tactile Stimuli (LTS)
Test Description
- Materials: LTS pen and shield to occlude child's vision.
- Expected Actions: While the child's eyes are shielded, the therapist uses the LTS pen to lightly touch the child on various spots of the palm and dorsal sides of the arm and hand. The child is expected to touch his or her own arm in the same spot that the therapist touched.
- Scoring: The child's attempt at touching the correct location is noted, and the distance from his or her attempt and the original location is measured.

Skills/Foundations Assessed
- Ability to rely only on tactile proprioceptive awareness to precisely discriminate where the hands and arms are being touched
- Ability to tolerate light touch from another person

Significance for the School Setting
All of the tactile tests on the SIPT measure discrimination versus modulation of touch. However, LTS involves the lightest touch, is given without intervals of using vision as are the other tactile tests, and is the last test given. These conditions appear to make LTS the test most likely to elicit signs of tactile defensiveness. When this occurs, children sometimes become highly alert to touch and may have a very high score on this test, although this does not necessarily reflect especially functional tactile perception. Thus, LTS along with PRN are the two tests of the SIPT on which a high score is not considered reflective of above-average performance. Sensory modulation issues that might be captured in such high scores can affect a child at school in many ways, especially in relation to attention and behavior.

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