



Texas School for the Blind and Visually Impaired Outreach Programs

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TETN 33097 Addressing Access to the Core and Expanded Core Curricula Using Active Learning

April 21, 2015

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Developed for

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What is Active Learning?

- An instructional approach created by Dr. Lilli Nielsen
- Based on typical child development but modified for students with visual impairment/deafblindness
- Includes:
 - FIELA Curriculum
 - Perceptualizing Aids

Which students need Active Learning?

- Developmentally under the age of 3
 - Infants and toddlers
 - 3 years developmentally no matter chronological age
- Created for students with visual impairments and deafblindness, but may be beneficial for other students with multiple impairments and severe cognitive and motor issues

Which students need Active Learning?

Sensorimotor learners (birth thru 24 months)

- Exploring
- What is it like? What does it do?

Early pre-operational learners (24 months thru 7 years)

- Naming, categorizing, and predicting
- Using symbolic thinking about past, present, future
- What is its name? (language)

References: Millie Smith from Sensing, Learning, Acting handout, 2015 and Kay C. Wood, Harlan Smith, and Daurice Grossniklaus, Department of Educational Psychology and Instructional Technology, University of Georgia, Piaget's Stages of Cognitive Development

Why don't typical educational approaches work?

- Students are simply not developmentally ready to do higher level learning yet – concrete and formal operational stages of learning.
- Most educational approaches used in schools do not address their unique needs and learning styles
- They need to learn by doing, exploring and interacting with the world around them

Expanded Core Curriculum

ECC Assessment and Instruction

Requirements for instruction

- Measurable annual goals in their IEP, based on individual student need as documented in PLAAFP statement
- Two-types goals: (1) academic linked to grade-level TEKS curriculum or (2) functional
- Access to the general education curriculum
- Assessment to evaluate learning (STAAR)
- Instruction in the expanded core curriculum

<http://esc20.net/users/0045/docs/AGC/iepQA61914.pdf>

What is the ECC?

Law requires all students with visual impairment or deafblindness be assessed and receive instruction in the Expanded Core Curriculum areas:

1. Assistive technology
2. Compensatory skills
3. Career education
4. Recreation & leisure
5. Orientation & mobility
6. Social interaction
7. Sensory efficiency
8. Self-determination
9. Independent living

Active Learning Supports ECC

Assessment using the Functional Scheme can be used to identify ECC needs
Instructional strategies support learning wide variety of ECC Skills.

Some Examples

Sensory Efficiency

Development of tactile exploration skills
Development of auditory skills
Development of visual skills
Development of olfactory and gustatory skills
Use of hands, feet, mouth, lips and tongue

Sensory Efficiency

Some Examples

Orientation and Mobility

- Development of listening skills for travel
- Development of grasp for cane travel
- Development of body awareness
- Development of spatial awareness (position of objects in relation to body)
- Development of motor skills needed for travel

Orientation and Mobility

Some examples

Social Skills

- Development of skills to initiate and sustain an interaction with another person
- Development of skills to imitate the actions of others
- Development of turn-taking skills
- Development of skills for working with and helping another person

Interaction and Imitation

<http://www.wsdsonline.org/video-library/deaf-blind-videos/hand-under-hand/>

Active Learning and TEKS and STAAR

- TEKS (Texas Essential Knowledge and Skills) is the general education curriculum
- All students no matter what their disabilities must have access to this curriculum
- Not at grade level – instruct in same type of skills a lower developmental levels
- STAAR (State of Texas Assessment of Academic Readiness) measure student progress

TEKS and STAAR

Statewide Curriculum and Student Progress Testing

Alignment to TEKS?

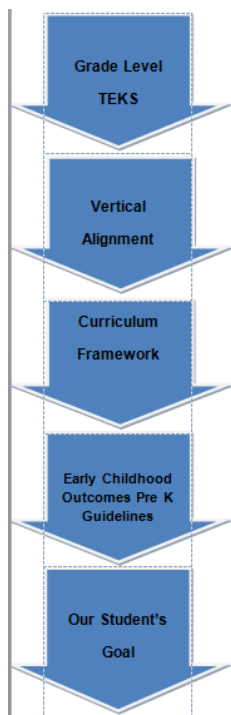


Figure 1 Graphic showing the process of starting with Grade Level TEKS moving to the Vertical alignment, Curriculum Framework, Early Childhood Outcomes Pre-K Guidelines, to determine what a student goal should be for a student who is visually impaired or deafblind functioning at the sensorimotor or preoperational level of learning.

What do we do now?

- PLAAFP
- Student's IEP Goals and Objectives
- Find a pre-requisite skill

Example of PLAAFP

- 4th grade
- Deafblindness, intellectual disability, non ambulatory, shunt, tube feeding
- Grade-level TEKS through pre-requisite skills in all academic areas
- Special ed. classroom – except Music.
- Assistance - communication, personal care, eating, transferring from setting to setting
- Communicates by facial expressions, vocalizations to indicate comfort, discomfort, interest, disinterest and to protest.
- Limited participation in signed stories with simplified texts and tactile representations
- Limited understanding of text, enjoys sensory sensations.
- Enjoys objects with soft, furry, feathery, velvety textures
- Does not prefer textures that are crinkly, metal or scratchy.
- Understands tactile symbols “teacher”, “music,” “fan”, “change time” anticipation of regular routines
- Vocal protests during transitions, providing choice decreases vocalizations

Example of Alignment to TEKS

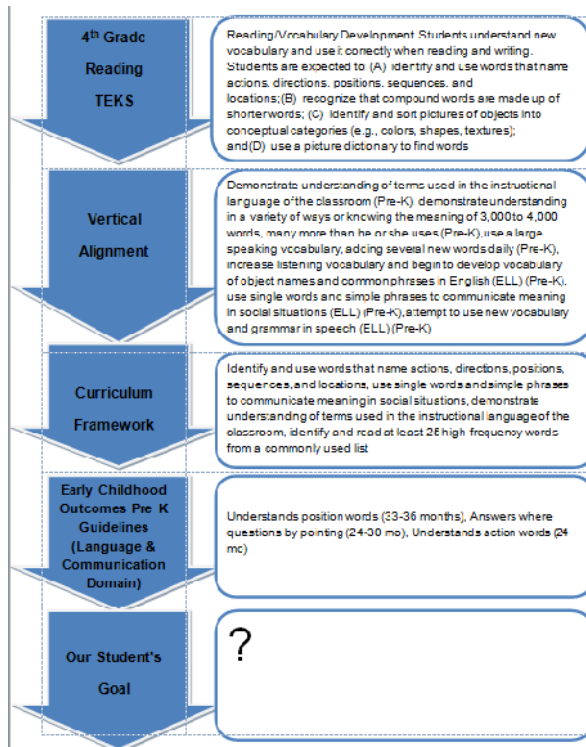


Figure 2 Graphic from above showing example of the alignment process leading to the development of the student goal.

- 4th Grade Reading TEKS: Reading/Vocabulary Development. Students understand new vocabulary and use it correctly when reading and writing. Students are expected to: (A) identify and use words that name actions, directions, positions, sequences, and locations; (B) recognize that compound words are made up of shorter words; (C) identify and sort pictures of objects into conceptual categories (e.g., colors, shapes, textures); and (D) use a picture dictionary to find words.
- Vertical Alignment: demonstrate understanding of terms used in the instructional language of the classroom (Pre-K), demonstrate understanding in a variety of ways or knowing the meaning of 3,000 to 4,000 words, many more than he or she uses (Pre-K), use a large speaking vocabulary, adding several new words daily (Pre-K), increase listening vocabulary and begin to develop vocabulary of object names and common phrases in English (ELL) (Pre-K), use single words and simple phrases to communicate meaning in social situations (ELL) (Pre-K), attempt to use new vocabulary and grammar in speech (ELL) (Pre-K).
- Curriculum Framework: identify and use words that name actions, directions, positions, sequences, and locations, use single words and simple phrases to communicate meaning in social situations, demonstrate understanding of terms used in the instructional language of the classroom, identify and read at least 25 high-frequency words from a commonly used list.
- Early Childhood Outcomes Pre-K Guidelines (Language and Communication Domains): Understands position words (33-36 months), Answers where questions by pointing (24-30 mo), Understands action words (24 mo).
- Our Student's Goal?

STAAR Alternate 2 Eligibility

1. Does the student have a significant cognitive disability?
2. Does the student require specialized supports to access the grade-level curriculum and environment?
3. Does the student require intensive, individualized instruction in a variety of instructional settings?
4. Does the student access and participate in the grade-level TEKS through prerequisite skills?

No Authentic Academic Response (NAAR) Eligibility Criteria

- Because of multiple impairments, the student is unable to receive information during instruction and assessment. For example, the student may have a combination of visual, auditory, and/or tactile impairments.
- The student is consistently unable to provide an authentic academic response during instruction. His or her behavior may be described by one or more of the following characterizations:
 - is unable to demonstrate any observable reaction to a specific stimulus.
 - exhibits only startle responses.
 - tracks or fixates on objects at random and not for a purpose.
 - moves or responds only to internal stimuli.
 - vocalizes intermittently regardless of changes in environment around him/her.

Vertical Alignment to STAAR Alt 2



TEKS Vertical Alignment for STAAR Alternate 2
Writing
Pre-kindergarten through End-of-Course

Figure 3 Image of STAAR Alternate 2 for Writing Pre-kindergarten through End-of-Course.
<http://tea.texas.gov/student.assessment/special-ed/staaralt/vertalign>

Vertical Alignment Writing

Motivation to Write Skills. Students develop the understanding that print conveys meaning (Pre-K.IV.A).

Independently Conveys Meaning Skills. Students engage in using print in ways to convey their meanings in different situations (Pre-K.IV.B).

Writing/Writing Process. Students use elements of the writing process (planning, drafting, revising, editing, and publishing) to compose text (K.13 [with adult assistance]; 1.17; 2.17; 3.17; 4.15; 5.15; 6.14; 7.14; 8.14; Eng I.13; Eng II.13; Eng III.13). Students are expected to

Planning and Developing

- use scribbles/writing to convey meaning (Pre-K)
- use letters or symbols to make words or parts of words (Pre-K)
- plan a first draft by generating ideas for writing through class discussion (K)
- develop drafts by sequencing the action or details in the story (K)
- plan a first draft by generating ideas for writing (e.g., drawing, sharing ideas, listing key ideas) (1–2)
- develop drafts by sequencing ideas through writing sentences (1–2)

Figure 4 Image of page from the STAAR Alternate 2 showing vertical alignment. The two Pre-K goals are highlighted: use scribbles/writing to convey meaning and use letters or symbols to make words or parts of words.

What do you need to know?

- Be able to grasp a pencil
- Understand that a pencil can create a mark
- Coordination to control movement of pencil on paper
- Fine motor and orientation skills to position paper to pencil
- Symbolic representation
- Recognize that scribbling or writing can have meaning
- Have expressive and receptive communication
- Have social skills to interact with others and learn to imitate
- To recognize part-whole
- Etc., etc., etc.

Uses scribbles/writing to convey meaning

Fine Motor

(3-6 mo.)

- Grasps and keeps objects.
- Strokes hand over surface.

(12-15 mo.)

- Holds crayon with cross palmer grip: makes dots on a piece of paper

(15-18 mo.)

- Imitates drawing a line
- Draws back and forth in the middle of piece of paper

Visual Perception

(3-6 mo.)

- Tries to grasp the visual object

(6-9 mo.)

- Imitates actions that he sees, if they correspond with previously attained skills.

(12-15 mo.)

- Looks at own drawings after completion
- Fixates on paper and crayon while drawing

Vertical Alignment Science

Matter and Energy

Physical science skills. The student learns to explore properties of materials, positions, and motion of objects through investigations which allow him or her to notice the attributes (Pre-K-VI A).

Matter and energy. The student knows that objects have properties and patterns (K. 5, 1.5). The student knows that matter has physical properties and those properties determine how it is described, classified, changed, and used (2.5). The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used (3.5, 4.5, 5.5). The student knows the differences between elements and compounds (6.5). The student knows matter has physical properties that can be used for classification (6.6). The student knows that some of Earth's energy resources are available on a nearly perpetual basis, while others can be renewed over a relatively short period of time. Some energy resources, once depleted, are essentially nonrenewable (6.7). The student knows that interactions occur between matter and energy (7.5). The student knows that matter has physical and chemical properties and can undergo physical and chemical changes (7.6). The student knows that matter is composed of atoms and has chemical and physical properties (8.5). The student is expected to

Characteristics/Properties of Matter

- describe, observe, and investigate properties and characteristics of common objects (Pre-K)
- observe and record properties of objects including relative size and mass, such as bigger or smaller and heavier or lighter, shape, color, and texture (K)
- observe, record, and discuss how materials can be changed by heating or cooling (K)
- classify objects by observable properties of the materials from which they are made such as larger and smaller, heavier and lighter, shape, color, and texture (1)

Figure 5 Image of the Vertical Alignment for Science (Matter and Energy). Highlighted are the following statements: "Physical science skills: The student learns to explore properties of materials, positions, and motion of objects through investigations which allow him or her to notice the attributes (Pre-K VI A)." and "describe, observe, and investigate properties and characteristics of common objects (Pre-K)".

Handout B: Linking to STAAR-ALT

Specific TEKS: Identify a number, its opposite and its absolute value.

Verb used in TEKS: Identify.

Functional Schemes Assessment.

Field that relates to the TEKS verb: Object Perception.

Milestone: Recognizes his hands by using tongue and lips.

Targeted Function: Uses Little Room to promote the awareness of objects.

| | |
|-----------|--|
| Goal | |
| Objective | |
| Objective | |
| Objective | |

Handout C: STAAR-ALT Prerequisite Skills with Corresponding Functional Schemes Fields

| STAAR-ALT Prerequisite Skills | Functional Schemes Fields |
|-------------------------------|--|
| Acknowledge | Fine Movement, Visual Perception, Auditory Perception, Spatial Perception, Social Perception, Language |
| Participate | Gross Movement, Fine Movement, Social Perception, Language |
| Experience | Visual Perception, Object Perception, Auditory Perception, Perception through Play and Activity |
| Choose | Fine Motor, Visual Perception, Spatial Perception, Object Perception, Language |
| Explore | Gross Movement, Fine Movement, Mouth Movement, Haptic-Tactile Perception |
| Respond | Mouth Movement, Language, Social Perception, Auditory Perception |
| Anticipate | Visual Perception, Auditory Perception, Social Perception, Emotional Perception |
| Look | Visual Perception, Object Perception, Spatial Perception |
| Listen | Auditory Perception |

Handout D: Active Learning Data

| | |
|------------------|---|
| Goal | When placed in a variety of Active Learning environments throughout the day, the student will independently use his head, hands, fingers, mouth, tongue, lips, feet and toes to explore properties of materials, positions, and motion of objects through investigations which allow him or her to notice the attributes (Physical Science – Matter and Energy) for periods of at least 45 minutes. |
| Objective | Student will tactually explore at least 3 different objects in Active Learning environments using hands, feet, head or mouth for a minimum of 5 minutes per each object within a 45 minute period. |

| Lesson: Description of Environment & Skills Targeted | Observation Data | | | | | | | | | Notes |
|---|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---|
| Student will be placed in the Little Room in prone position for at least 45 minutes daily. Using hands, feet, head or mouth, student will touch objects. Student will interact with at least 3 objects for at least 5 minutes each. | Date | Date | Date | Date | Date | Date | Date | Date | Date | Student has begun to grasp at objects. Entangles fingers and feet in long chains. Rubs soft textures against face and explores with the tongue. |
| | 0 | 0 | X | X | X | X | X | X | X | |
| Lesson: Description of Environment & Skills Targeted | Observation Data | | | | | | | | | Notes |
| Student will be placed in the HOPSA dress near a wall of SPG boards with various materials on them and with a variety of materials in trays under his feet for a period of up to 45 minutes. Using hands, feet, head or mouth, student will touch objects. Student will interact with at least 3 objects for at least 5 minutes each. | Date | Date | Date | Date | Date | Date | Date | Date | Date | Student is using feet to touch various textures below him. Took some time to get used to HOPSA dress, but now stays in for periods of 45 minutes to 1 hour. Seems to ignore using hands, mouth or head while exploring with feet, but is beginning to shift attention for few min. to hands to touch objects. |
| | 0 | 0 | 0 | 0 | 0 | X | X | X | X | |

Remember Active Learning is....

- An instructional approach
- Modified/adapted learning environments
- Curriculum of skills activities for sensorimotor and preoperational learners
- Specialized equipment

All of which support learning related to ultimately learning in both the ECC and the General Curriculum.

References

Millie Smith from “Sensing, Learning, Acting” presentation and handout for Region 8 Education Service Center, 2015.

Kay C. Wood, Harlan Smith, and Daurice Grossniklaus, Department of Educational Psychology and Instructional Technology, University of Georgia, Piaget's Stages of Cognitive Development, http://epltt.coe.uga.edu/index.php?title=Piaget%27s_Stages

Documents from Texas Education Agency www.tea.gov

Educator Guide: State of Texas Assessments of Academic Readiness A (STAAR A) and State of Texas Assessments of Academic Readiness Alternate 2 (STAAR Alternate 2)

STAAR Alternate 2 Essence Statements

Revised Texas Prekindergarten Guidelines

TEKS Vertical Alignment for STAAR Alternate 2 Science Pre-kindergarten through End-of-Course

STAAR Alternate 2 No Authentic Academic Response (NAAR) Eligibility Requirements

STAAR Alternate 2 Participation Requirements

TEKS Curriculum Framework for STAAR Alternate 2 Grade 5 Science

TEKS Curriculum Framework for STAAR Alternate 2 Grade 4 Writing

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Figure 6 TSBVI logo.



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

Figure 7 IDEAs that Work logo and OSEP disclaimer.