Iowa’s SDI Framework and Students with Deafblindness

Iowa Department of Education
Special Education Symposium
June 11-12, 2018
Session Objectives

• Brief overview to help participants understand:
  • Iowa's Deafblind Project and the services provided
  • Iowa’s Specially Designed Instruction (SDI) Framework
  • Unique needs of students who are deafblind
  • Examples of how the SDI Framework supports instruction for students who have very complex educational needs and are deafblind.
What is it like to be deaf and blind?
What makes deafblindness so different from other impairments?

• **Federal Definition**

Deaf-blindness means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness.
Iowa’s Deafblind Services Project

• What is the Deafblind Technical Assistance Team (DTAT)?
• Who is are DTAT members?
• What can the DTAT do for you?
Deafblind Registry

• Voluntary registry of students ages birth to 21 that have a combined vision and hearing loss that impacts their education and educational programming.

• Who can refer as student to the Registry?

• Does the Registry require parent permission?

• What if we don’t have a good hearing test or vision report but the child has a diagnosis that puts them at risk for deafblindness?
How many students are identified as deafblind in Iowa?

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth-2</td>
<td>5</td>
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<tr>
<td>3-5</td>
<td>12</td>
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<td>6-8</td>
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<td>9-12</td>
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<td>13-15</td>
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<tr>
<td>16-18</td>
<td>17</td>
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<tr>
<td>19-21</td>
<td>9</td>
</tr>
<tr>
<td>Total Number</td>
<td>91</td>
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</tbody>
</table>
# The Specially Designed Instruction (SDI) Framework

<table>
<thead>
<tr>
<th><strong>DIAGNOSE FOR INSTRUCTIONAL DESIGN</strong></th>
<th><strong>DESIGN FOR INSTRUCTIONAL DELIVERY</strong></th>
<th><strong>DELIVER FOR LEARNER ENGAGEMENT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KNOW YOUR CLASSROOM &amp; STUDENT</strong></td>
<td><strong>KNOW &amp; ADAPT THE CONTENT</strong></td>
<td><strong>TEACH &amp; REPORT OUT INSTRUCTIONAL ROUTINES</strong></td>
</tr>
<tr>
<td>Use RIOT &amp; SCIL in order to:</td>
<td>With a team who has relevant and specialized knowledge, develop a plan which:</td>
<td>Use evidence-based practices in order to:</td>
</tr>
<tr>
<td>1. Define areas of concern and verify potential reasons for the concern</td>
<td>4. Incorporates evidence-based practices aligned to learner needs</td>
<td>7. Deliver the instruction as designed and monitor instructional fidelity</td>
</tr>
<tr>
<td>2. Identify strengths, interests and preferences that sustain learner engagement</td>
<td>5. Aligns to the Iowa Core and is age appropriate</td>
<td>8. Monitor learner progress</td>
</tr>
</tbody>
</table>
Engagement for Learning

- Active Involvement of the student, family and school
- Positive Communication
- High Expectations
- Support the Learner Learning
Diagnose for Instructional Design
Know Your Student & Classroom

Use RIOT & SCIL in order to:

1. Define areas of concern and verify potential reasons for the concern
2. Identify strengths, interests and preferences that sustain learner engagement
3. Determine critical supports needed for learner success.
Assessment and File Review

- **Health Plan:** etiology and physiology trump everything
- **Emotional History:** attachment to people and feeling safe
- **Vision:** Functional Vision Assessment (FVA), Learning Media Assessment (LMA), Expanded Core Curriculum
- **Hearing:** Informal Hearing Evaluation (IFHE) or Functional Listening Evaluation (FLE), Communication Plan for D/HH, Expanded Core Curriculum
- **Communication:** Assistive Technology Planning Tool (ATP), Communication Matrix, Gesture Dictionary
- **Movement:** OT and PT
- **Preference Assessment:** knowing what they will engage in, preferred experiences/people/places/things/etc.
Real life examples

Student K: CHARGE syndrome, coloboma in both eyes, profound bilateral hearing loss. Emergent symbolic communicator.


Student I: Cornelia De Lange Syndrome. Optic Nerve Hypoplasia. Severe low frequency rising to moderate high frequency hearing loss in the right ear and a moderate flat hearing loss in the left ear. Wears hearing aids. Context dependent communicator.
Real life examples

Why is understanding a student’s medical diagnoses and health history important to instruction? (Group Brain storm)
Medical and health history continued

- Sensory needs
- Pain and behavior
- Behavior not related to pain
- Researched and proven strategies
- Effects of medication
What are the leading causes of deafblindness in Iowa?

<table>
<thead>
<tr>
<th>Etiology or Syndrome</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>23</td>
</tr>
<tr>
<td>CHARGE</td>
<td>20</td>
</tr>
<tr>
<td>Complications of Prematurity</td>
<td>9</td>
</tr>
<tr>
<td>No Known Cause</td>
<td>7</td>
</tr>
<tr>
<td>Usher Syndrome Type I and II</td>
<td>5</td>
</tr>
<tr>
<td>Microcephaly</td>
<td>4</td>
</tr>
<tr>
<td>Severe Head Injury</td>
<td>4</td>
</tr>
<tr>
<td>Cytomegalovirus (CMV)</td>
<td>3</td>
</tr>
</tbody>
</table>
Functional Vision Assessment

- Completed by the Teacher for the Visually Impaired (TVI)
- Includes parent, teacher and student interviews
- Observations in multiple settings
- Direct assessment of student’s functional vision
  - Distance/near viewing
  - Contrast sensitivity, light sensitivity
  - Best location for viewing board material, etc.
- Orientation & Mobility Specialist (OMS) will complete O&M screening
Learning Media Assessment

• Completed by the Teacher for the Visually Impaired (TVI)
• Sometimes completed in collaboration with the school’s reading specialist if there are concerns about vision vs. learning disabilities
• Used to determine a student’s primary and secondary learning medium
• Comparison of large print, braille, regular print, print with magnification, etc.
• Reading speed and comprehension assessed
Collaborative Assessment

• Sensory Learning Kit
• SAM: Symbols and Meaning
• These are not vision specific tools
• Can be used as a component of a communication assessment
Expanded Core Curriculum (ECC)

- Concepts or skills that require special instruction for students who are blind or visually impaired to compensate for what the students are missing incidentally.

<table>
<thead>
<tr>
<th>Areas of the Expanded Core Curriculum</th>
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<tbody>
<tr>
<td>Assistive technology</td>
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<tr>
<td>Compensatory skills</td>
</tr>
<tr>
<td>Orientation and mobility</td>
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<tr>
<td>Self-determination</td>
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<tr>
<td>Social interaction skills</td>
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</tbody>
</table>
ECC process

• ECC checklist is completed at a student’s initial IFSP or IEP
• Priority areas are determined and additional assessments in specific areas are completed
• Goals are created if the assessment demonstrates student need in an ECC area
• The ECC checklist is updated every three years
Hearing

Informal Hearing Evaluation (IFHE)

The IFHE can provide information about how the child is currently using his/her hearing in a variety of settings and then guide the IEP team in developing instructional strategies to address the child’s dual sensory needs, especially if a child is unable to participate in testing.

The IFHE can be used as a compliment before formal testing to provide valuable information to the audiologist or ENT. The IFHE should not serve as sole documentation of hearing impairment; formal testing is needed.
The Informal Functional Hearing Evaluation (IFHE) should be completed by the educational team under the guidance of the TDHH, TDB, and/or speech-language pathologist, in collaboration with the TVI. The process consists of the following components:

- **Parent/Staff Interview:** Discuss observed behaviors related to the child’s hearing in home, classroom, and community settings to learn about his/her auditory functioning.
- **Natural Observation:** Watch the child in familiar environments, during familiar activities.
- **Systematic Observation:** Use information from formal hearing tests to observe behavior within familiar routines and record patterns that might indicate a child’s use of hearing.
IFHE for students with additional disabilities

• The Informal Functional Hearing Evaluation (IFHE) is meant to guide the teacher of the deaf and hard of hearing (TDHH), the teacher of the visually impaired (TVI), and the teacher of students with DeafBlindness (TDB) in determining the impact of a potential hearing loss on educational functioning for students with visual impairments and multiple disabilities.

• A link to the IFHE from the Texas School for the Blind & Visually Impaired can be found here: IFHE TSBVI
Functional Hearing Evaluation

• The purpose of this evaluation is to determine how listening abilities are affected by noise, distance, and visual input in an individual’s natural listening environment.

• It is designed to simulate listening ability in situations that are more representative of actual listening conditions than can often be replicated in sound booth assessment.

• Through observation of the administration of the evaluation by an audiologist or team or audiologist and TDHH, the student’s teachers, parents, and others may gain appreciation of the effects of adverse listening conditions encountered by the student.
FHE continued

• The evaluation results are also useful in justifying accommodations, such as assistive listening devices, sign language or oral interpreters, note takers, captioning, special seating, and room acoustic modifications. This protocol is based on a listening paradigm suggested by Ying (1990), and by Ross, Bracken, and Maxon

• A link to the FHE evaluation an scoring sheet can be found here: [FHE Scoring Sheet](#)
Communication Plans for D/HH Students

Goal of a Communication Plan:

To ensure that students who are Deaf/Hard of Hearing have the ability to have social interactions with peers, adults associated with classroom and 1:1 learning situations in their primary expressive and receptive language modality. The communication plan can be found at:

Expanded Core Curriculum (ECC) for D/HH

Concepts or skills that require special instruction for students who are Deaf or hearing impaired to compensate for what the students are missing incidentally.

<table>
<thead>
<tr>
<th>Areas of the Expanded Core Curriculum for D/HH Students</th>
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<tbody>
<tr>
<td>Audiology</td>
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<td>Self-Determination and Advocacy</td>
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<tr>
<td>Career Education</td>
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<td>Social-Emotional Skills</td>
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<td>Communication</td>
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<tr>
<td>Technology</td>
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<tr>
<td>Functional Skills for Educational Success</td>
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<tr>
<td>Family Education</td>
</tr>
</tbody>
</table>

Goal of AAC: To equip SLP’s to assess and support individuals with complex communication needs to “be able to say what they want to say when they want to say it.” (Porter 2009)

Purpose of APT-AAC Assessment Tool: To guide the SLP’s in the selection and use of available AAC assessment tools. (Sp Ed Symposium 2018, AAC APT Session)
Communication Matrix

<table>
<thead>
<tr>
<th>Communication Matrix Profile for Parents and Professionals</th>
<th>Standard View</th>
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</thead>
</table>

**Georgia P.**

Key:
- Surpassed
- Not Used
- Emerging
- Mastered

**Communication Matrix**

<table>
<thead>
<tr>
<th>A1</th>
<th>A2</th>
<th>A3</th>
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<tbody>
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<th>G5</th>
<th>G6</th>
<th>G7</th>
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<tbody>
<tr>
<td>H1</td>
<td>H2</td>
<td>H3</td>
<td>H4</td>
<td>H5</td>
<td>H6</td>
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<td>H10</td>
<td>H11</td>
<td>H12</td>
<td>H13</td>
<td>H14</td>
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</tbody>
</table>

**Conventional Communication**

- Primitive Signaling
- Simple Symbolic
- Advanced Symbolic
- Language

**Unconventional Communication**

- Intentional Behavior
- Non-Intentional Behavior
# AAC Planning Tool Resource

## Personalized Gesture Dictionary

A Gesture Dictionary contains a list of conventional & non-conventional gestures, body movements, vocalizations or other identified signals thought to be used regularly by the individual communicator that may be shaped and refined via “verbal referencing” (say out loud the behavior/movement that you observed) to reinforce communicative attempts and perhaps establishes a more reliable set of nonverbal communication behaviors. A personalized Gesture Dictionary is especially critical for those individuals who are Emergent Communicators and who have limited verbal or symbolic communication skills. Interview of communication partners who are familiar with the individual is critical to the identification of these signals/behaviors. Once documented, the Gesture Dictionary should then be shared with ALL communication partners to support and reinforce communicative attempts and interactions by the student. This should be reviewed and updated regularly by the team.

<table>
<thead>
<tr>
<th>Name of Individual:</th>
<th>Student Sam</th>
<th>Date:</th>
<th>8/28/2016</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>What the student does (gesture, sound, body movements etc.)</th>
<th>What we think it means</th>
<th>Communication Partner Response</th>
<th>Comments/Clarification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pause, eyes may look up and slightly left?, lower breathing rate; sometimes eyebrows draw together with a little frown line between them (his serious look)</td>
<td>“I’m thinking about that. Give me a minute.”</td>
<td>Say to Student: “You’re thinking about that.” Give him 5-10 seconds to think without anyone saying more. Then ask. “Are you ready?” or whatever might fit the moment/activity.</td>
<td>Student seems to be thinking about and processing what was said or processing a new experience (such as activating a new toy attached to a switch with help from an adult)</td>
</tr>
<tr>
<td>Kick legs and wave arms enthusiastically, sometimes coos/babbles</td>
<td>Excited: “I can hardly wait. Let’s get started.”</td>
<td>Say to Student: “I see you waving and kicking. You look ready to ____.”</td>
<td>He appears to think what you’ve suggested is a good idea and he wants to try it...</td>
</tr>
<tr>
<td>Extends his arms, pushes with his hands for about 5-10 seconds</td>
<td>“I’m all done.”</td>
<td>Say to him: “You are pushing the ___ away. You’re all done”</td>
<td>Acknowledge and stop activity immediately when this behavior is observed to “teach” how we are interpreting this behavior.</td>
</tr>
</tbody>
</table>

Updated 6/2017
What did we find out through student assessments?

• Communication Matrix results
• Functional Vision recommendations
• Expanded core checklists and IEP goals
• Preferred Items
<table>
<thead>
<tr>
<th>Appetite Items (likes)</th>
<th>Sensory Channel/Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Vibrating pillow</td>
<td>T</td>
</tr>
<tr>
<td>2. umbrella</td>
<td>T</td>
</tr>
<tr>
<td>3. bubles</td>
<td>V</td>
</tr>
<tr>
<td>4. food- bbq, vanilla yogurt, tomato soup</td>
<td>G</td>
</tr>
<tr>
<td>5. merry go round</td>
<td>VP</td>
</tr>
<tr>
<td>6. laying on bean bag</td>
<td>VP</td>
</tr>
<tr>
<td>7. fan</td>
<td>T</td>
</tr>
<tr>
<td>8. tire swing</td>
<td>VP</td>
</tr>
<tr>
<td>9. light box</td>
<td>V</td>
</tr>
<tr>
<td>10. messenger</td>
<td>TP</td>
</tr>
</tbody>
</table>

Aversions: Yogurt with chunks, cold, smells
Designing Instruction

• How do we use our assessments to plan for instruction?
Design for Instructional Delivery
Know and Adapt the Content

With a team who has relevant and specialized knowledge, develop a plan which:

4. Incorporates evidence-based practices aligned to learner needs
5. Aligns to the Iowa Core and is age appropriate
6. Maximizes opportunities for access and engagement.
Foundation Node Example

- **F-99** Respond to stimuli
- **F-107** Preintentionally expresses discomfort
- **F-108** Preintentionally expresses comfort
- **F-109** Preintentionally expresses Interest in others
- **F-106** Selectively attends to stimuli
- **F-55** Can seek objects
- **F-94** Expresses Preferences
- **F-46** Expresses interest in people
- **F-68** Can respond to bids for attention from others
- **F-31** Anticipates Consequences of Actions
- **F-18** Seeks attention of others to get desired objects
- **F-34** Anticipates Consequences of Actions
## Essential Element, Linkage Levels, and Mini-Map

**ELA: 7th Grade**

**ELA.EE.L.7.2.b**

<table>
<thead>
<tr>
<th>Grade-Level Standard</th>
<th>DLM Essential Element</th>
<th>Linkage Levels</th>
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</thead>
<tbody>
<tr>
<td>ELA.L.7.2.b</td>
<td>ELA.EE.L.7.2.b</td>
<td><strong>Emergent Writing (EW.7):</strong></td>
</tr>
<tr>
<td>Spell correctly</td>
<td>Spell words phonetically, drawing on knowledge of letter-sound relationships and/or common spelling patterns</td>
<td>- Initial Precursor: Can recognize the sound of the letter of their first name in words they hear and see, and can correctly represent this letter when spelling words that start with the same letter.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Distal Precursor: Can produce a string of letters (student attempts to write words) by combining random letters.</td>
</tr>
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<td></td>
<td><strong>Conventional Writing (CW.7):</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Proximal Precursor: Can use spelling patterns (e.g., rimes) in familiar words to spell new words.</td>
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<tr>
<td></td>
<td></td>
<td>- Target: Can use letter-sound knowledge to spell words phonetically by including letters that represent sounds from the word.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Successor: Can spell words with inflectional endings (e.g., walked, eats, sleeping).</td>
</tr>
</tbody>
</table>
Environment
Materials
Communication Level
-Look at the difference based on assessment
Lesson and routine planning

Example of K’s Braille routine lesson plan
What does deafblind intervention do for students?

- Connect them to the world
- Provide access to clear and consistent visual and auditory information
- Provide support for the development and use of communication
- Provide support for social and emotional well-being
What is the role of an intervener?

- To facilitate access to environmental information usually gained through vision and hearing
- To facilitate the development and/or use of receptive and expressive communication skills
- To develop and maintain a trusting, interactive relationship that can promote social and emotional well-being
- To provide intervention under the supervision of a teacher or related service provider
Deliver for Learner Engagement
Teach & Report Out Instructional Routines

Use Evidence-based practices in order to:

7. Deliver the instruction as designed and monitor instructional fidelity
8. Monitor learner progress
9. Adjust instruction as necessary based on learner progress and instructional fidelity
So what does instruction look like for a deafblind child?

• Braille Routine with a volunteer
  What skills were we working on?
• Birthday Routine
Questions/comments
How can the DTAT assist with all of this?

• Support to teams through Chat with the DTAT
• Short term technical assistance
• Intensive (long term) technical assistance
• Support to teams with assessment and educational programming – we won’t do it for you, but we’ll help you
• Onsite technical assistance and distance technical assistance offered via Zoom
• Learning opportunities for parents and educators (Open Hands Open Access)
Resources

• Paths to Literacy: www.pathstoliteracy.org
• Paths to Technology: www.pathstotechnology.org
• Active Learning Space: http://www.activelearningspace.org/
• National Center on Deafblindness: www.nationaldb.org
• Perkins Scout: http://www.perkins.org/elearning
• Perkins Learning: http://www.perkinselearning.org/teaching-resources
Contacts

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