Communication Systems for Deafblind Children: Providing a Range of Options

Deafblind Program
Perkins School for the Blind
The Deafblind Population 1974

- Rubella: 59%
- Premature: 1%
- RLF: 7%
- Unknown: 14%
- Other: 19%
- C.H.A.R.G.E.: 0%
The Deafblind Population 1990

- **Rubella**: 32%
- **Premature**: 13%
- **RLF**: 7%
- **Unknown**: 7%
- **Other**: 23%
- **C.H.A.R.G.E.**: 18%
The Deafblind Population now....
The Changing Population…

- Increased number of students with an etiology of prematurity resulting in an increased number of students with cortical visual impairment
- Increased number of students with more significant cognitive disabilities
- Increased number of students with CHARGE Syndrome
Implications of Changing Population....

- Change in teaching strategies
- Change in presentation of materials
In keeping with a total communication philosophy...

- Consideration is given to
  - Cognitive ability
  - Visual ability
  - Hearing ability
  - Physical ability
Expansion of Use of Augmentative Systems

<table>
<thead>
<tr>
<th>EXPRESSIVE SYSTEMS</th>
<th>RECEPTIVE SYSTEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Choicemaking</strong></td>
<td><strong>Calendar</strong></td>
</tr>
<tr>
<td><strong>Request Systems</strong></td>
<td><strong>Schedules</strong></td>
</tr>
<tr>
<td><strong>Feelings/Choice Boards</strong></td>
<td><strong>Situation-Specific</strong></td>
</tr>
</tbody>
</table>
Case Studies

- Matthew
- Jenna
- Amy
- Sara
- Coby
Student Descriptions

- Name
- Age
- Cognitive Level/Curriculum Focus
- Etiology
- Sensory Impairments
- Communication Modes
- Communication Systems
- Considerations and Accommodations
Matthew

- Age: 6 years old
- Etiology: CHARGE
- Vision: Colobomas
- Hearing: Profound Hearing Loss
- Cognition: developmentally delayed
- Curriculum Focus: Early Childhood Curriculum
Matthew: Communication Modes

- Gestures
- Sign language
- Line drawings
- Mayer-Johnson pictures

QuickTime™ and a Photo - JPEG decompressor are needed to see this picture.
Matthew: Communication Systems / Expressive

- Choicemaking/request systems
  - Snack
  - Free play
  - SMI
Matthew: Communication Systems/Receptive

- Calendar

QuickTime™ and a Photo - JPEG decompressor are needed to see this picture.
Matthew: Communication Systems/Receptive

- Situation-specific
  - Bathroom
  - Playground
Matthew: Considerations and Accommodations

- Needs to trace objects to see the development of new line drawings
- He uses sign on a limited basis to request favorite items
- Matthew tends to overgeneralize
Jenna

- Age: 14
- Etiology: Premature
- Vision: Blind
- Hearing: Mild loss
- Cognition: Severe
- Curriculum Focus: Functional Academic/Vocational
Jenna: Communication Modes

- Real objects
- Tactile symbols
- Tactile sign
- Spoken language
Jenna: Communication Systems / Expressive

- Choicemaking Systems
- Request Systems
Jenna: Communication Systems / Receptive

- Calendar System
- Situation-specific system
Jenna: Considerations & Accommodations

- Jenna has good tactile discrimination skills
- She is not a braille reader
- Jenna can follow simple tactile sequences that are three-dimensional
Amy

- Age: 22
- Etiology: Rubella
- Vision: legally blind
- Hearing: Severe Loss
- Cognition: Moderate/Severe
- Curriculum Focus: Functional Academic/Vocational
Amy: Communication Modes

- Sign language
- Mayer-Johnson pictures
- Gestures
- Line drawings
Amy: Communication Systems

Expressive

• Choicemaking systems
Amy: Communication Systems

Receptive

- Calendar System
- Situation-specific systems
Amy: Considerations & Accommodations

- Amy uses her residual vision well
- She uses many different communication systems throughout her day and week
- The communication systems have given her confidence and increased her sign language skills.
- The format for her various systems needs to be consistent
Students with Cortical Visual Impairment (CVI)

- Students have access to the same philosophy of “total communication”
- Components of “total communication” are usually defined as: simple signs, gestures, speech and use of objects
- Components of “total communication” are often used “one at a time” rather than simultaneously
- Auditory stimuli is often the primary response, then visual
Cortical Visual Impairment (CVI)

- **Object use**
  - Specific Color preferences
  - Target color to outline
  - Movement quality
  - Sound quality
  - Used consistently as primary communication system

- **Use of Pictures**
  - Transition with younger students is slower
  - Comprehension of pictures is not clear
  - Pictures do not have the same quality as objects and are not as clear and concrete
Sara

- Name: Sara
- Age: 8 years old
- Etiology: Prematurity
- Vision: CVI
- Hearing: Mild-moderate hearing loss
- Cognition: Under 3 years old
Sara: Communication Modes

- Simple signs
- gestures
- use of objects
- speech
Objects for Calendar system
• Objects for choice board
Sara: Accommodations and Considerations

- Target colors
- movement
- voice
Coby

- Age: 13 years old
- Etiology: brain tumor
- Vision: CVI, optic atrophy/cataract removal
- Hearing: profound loss
- Cognition: Severe
- Curriculum Focus: Life Skills Curriculum
Coby: Communication Modes

- Objects
- Photographs
- Gestures
- Sign

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Coby: Communications Systems/Expressive

- Choice-making
- Requests
  - Leisure
  - Snack
  - SMI
Coby: Communication Systems/Receptive

- Calendar
- Situation-specific
  - Cooking
  - Showering
Coby: Accommodations and Considerations

- Use of red/yellow frames for pictures
- Pairing pictures and objects
- Lighting
- Minimization of complexity within the environment
- Movement within visual field
Creative teaching must be carefully planned so as not to overwhelm both visual and auditory input.

Ecological inventory of environment is of high importance in order for student to generalize use of vision across environments.

A highly structured and predictable visual environment is critical.
Matthew
Sara
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Jenna
Choicemaking
Choicemaking

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Choicemaking

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Request Systems

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Feelings/Emotions Boards

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Feelings/Emotions

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Calendar Systems

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Calendar Systems

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Schedule Systems

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Schedule Systems
Schedule Systems

[Calendar for July]

- Monday: Home
- Tuesday: B & S
- Wednesday: B & S
- Thursday: B & S
- Friday: B & S
- Saturday: Home

- Monday to Friday: Perkins
- Saturday: Home
Schedule Systems

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Situation-Specific Systems

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