

## Emergent Literacy: Strategies for Preschoolers who are Blind/Visually Impaired

Tanni L. Anthony, Ph.D.  
Provincial Resource Centre for the Visually Impaired  
British Columbia Vision Teachers Association  
Provincial Outreach Program for Students with Deafblindness  
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### Children are Children

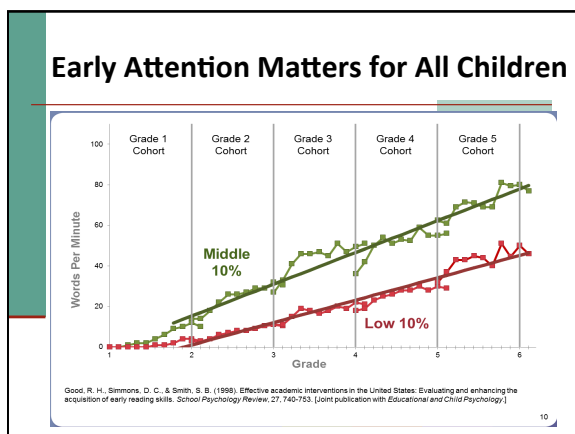
- Every child is unique.
- We have knowledge of a general developmental path. Each path is unique to a child in respect to temperament, family situations, and individual variations (onset of vision loss, presence of additional disabilities, etc.)
- Early onset blindness/visual impairment does not explain all developmental variations.

### Blindness/Visual Impairment

- Is a disability of access (need for specially-designed instruction, equipment, and related services)
- Involves part-to-whole learning (this takes time)
- Involves risks for fragmented learning / notions
- Has unique sequence / rates in some areas of development

### Emergent Literacy

- Involves many developmental domains – so it can be a target to improve sensory efficiency, oral language, concepts development, fine motor skills, and gross/motor mobility.
- Has often been a neglected domain or target of preschool interventions.
- Please be careful not to assume we are talking about READING and WRITING in an academic format with preschool children.



### Literacy Development Offenders

- Understanding
- Expectations
- Access
- Opportunity

## Strategies

- Know this age group
- Know what children learn in this age group (and from where they have come – and where they will be going)

## Understanding

- “Every child deserves excellent reading teachers because teachers make a difference in children’s reading achievement.” (IRA, 2000)
- ❖ **Strong knowledge** of reading research, theory, and how to connect to practice.
- ❖ **Personalized** instruction.
- ❖ **Believe in students and needed supports.**
- ❖ Highlight **relationships**.
- ❖ **Reflective**, learn from mistakes, **take advantage of time**.

## A Look from Year to Year: National APH Data



Year	Total # of Students	# of Nonreaders	% of Nonreaders	# of Prereaders	% of Prereaders
1997	56,275	18,047	32%	14,010	25%
1998	56,690	18,098	32%	14,632	26%
1999	57,425	18,528	32%	14,924	26%
2000	57,696	18,349	32%	15,387	28%
2001	56,814	18,454	32%	14,871	26%
2002	56,699	18,385	32%	14,935	26%
2003	57,148	18,387	32%	15,539	27%
2004	56,913	18,075	32%	15,773	28%

## A Probable National Cohort

Year / Grade	Total # of Students	# of Nonreaders	% of Nonreaders	# of Prereaders	% of Prereaders
1997 K	1,692	191	11%	991	59%
1998 1	1,679	192	11%	578	34%
1999 2	1,657	166	10%	353	21%
2000 3	1,670	180	11%	220	13%
2001 4	1,618	181	11%	125	8%
2002 5	1,702	195	11%	102	6%
2003 6	1,705	182	11%	72	4%
2004 7	1,703	197	12%	47	3%

## National Reading Panel: The Five Components of Reading

1. **Phonemic Awareness**
2. **Phonics**
3. **Fluency**
4. **Vocabulary**
5. **Comprehension**

All of these skills have origins in the early years and should be continually addressed and refined throughout all the school years.

## Emergent Literacy



*Emergent literacy* refers to “the reading and writing behaviors that precede and develop into conventional literacy.

Emergent literacy is concerned with the earliest phases of literacy development, the period between birth and the time when children read and write conventionally.

The term emergent literacy signals a belief that, in a literate society, young children—even 1- and 2-year-olds—are in the process of becoming literate (Sulzby and Teal, 1989).

## National Early Literacy Panel (NELP)

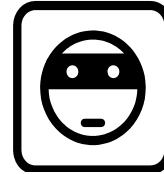
Synthesis of all high-quality scientific research that identified preschool and kindergarten skills that predict later reading

Found 3 **high predictor** components:

- Oral language
- Alphabetic Code / Phonological Awareness
- Print Knowledge / Concepts

## Literacy Development Offenders

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## Strategies

- Hold and model only the highest expectations
- Our students / children continually surprise us when they are given the opportunity to demonstrate their interests and abilities
- Link current reality with future target

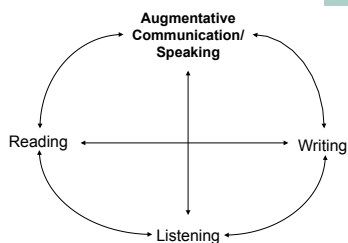
## Literacy Expectations

- When children have multiple disabilities, parents may not rank early literacy as a priority because their time is spent attending to their children's basic care and physical needs.
- Early interventionists should help families and caregivers understand that emergent literacy can be integrated into daily routines that do not require additional time.

*Marvin, 1994*

***Emergent literacy has earned more of an early intervention focus in the last five to ten years, but still may not receive high priority attention when a child has a disability or multiple disabilities.***

## Current View of Literacy



Koppenhaver, Coleman, Kalman & Yoder, 1991  
Adapted from Teale & Sulzby, 1989

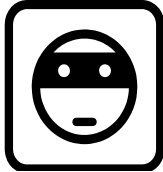
## What is the Lifelong Game Plan?

- For personal choices (food, recreation, etc.)
- For living situation
- For relationships
- For employment / supported living



### Literacy Development Offenders

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### Strategies

- DEEP Sensory Assessment and Advocacy
- Application of Sensory Preferences and Abilities in Meaningful Learning Opportunities

### Step One: Sensory Packaging

- Each child will present with unique sensory abilities and preferences that will drive how best to build a literacy program. It is more than a Functional Assessments.
- Sensory Packaging is about **ACCESS!** Sensory access has ties to phonological awareness, oral language development, building background knowledge, and alphabetic knowledge.

### Questions to Ask, Answer, and Apply:

- How does the child use touch to learn?
- What does the student see?
- What does the student hear?
- What are his / her proprioceptive needs?
- What are his / her vestibular needs?
- What about positioning for optimal learning?
- Can the student “self calm” or “self organize?”
- Does the student have sensory access to his or her materials?

### Completing a Sensory Profile

- Building a medical history.
- Learning about sensory support equipment.
- Identifying key sensory modalities.
- Identifying “sensory feature” preferences.
- Using sensory features as motivators.
- Determining environmental supports.

- Photo of child with tactile communication
- Photo of child with tactile learning
- Photo of child with tactile literacy
  
- Photo of child with hypo-vestibular function – needing full body support to read

## Hearing

- Sound is carried by airways and captured and registered by receptors in the ears.

28 weeks gestation	Fully developed with 12 weeks of listening experience to muted /lower frequency sounds
Birth	Hears low frequency sounds better than high frequency
4-10 years	Achieve adult-like hearing; ability to listen in noisy environments

## Phonology: Science of Speech Sounds

Phonological Awareness:

- conscious awareness of the sounds of spoken language
- ability to recognize the sound structure of speech
- ability to hear the specific sounds that make up the whole word ... while keeping in mind the whole word
- Measured at kindergarten, is one of the two best predictors of how well children learn to read.

## Early Listening / Phonemic Skills

- Between 4-8<sup>th</sup> month – an infant’s brain develops a “native language map.” A neuron is assigned to every sound in the native language. Up until six months, infants are capable of hearing and producing all phonemes
- emerging part:whole memory capacity: 3 to 4 years
- 6-7 years: capable of hearing and breaking words into their phonemes
- Some of the first skills needed for learning to read involve auditory perception and auditory memory.

## Building Sound Awareness

- Play with syllables of words by setting rhymes to music, using different notes for each syllable. Caregivers and professionals can model breaking down words by singing the rhymes slowly, singing them fast, and clapping out the syllables.
- Tapping with percussion instruments, such as sand blocks, cymbals, and drums, while singing can also help children become aware of syllables.

*Murphy, 2005c*

## Building Sound Awareness

- Provide opportunities for child to repeat rhyming words.
- Select books that involve rhyming patterns:
  - Brown and Hurd (1947), *Goodnight Moon*
  - Degan (1983), *Jamberry*
  - Fleming (1991), *In the Small, Small Pond*
  - Kirk (1999), *Little Miss Spider*
  - Martin and Radunsky (1994), *The Maestro Plays*

*Murphy, 2005c*

## Vision



The visual sense is unique in its ability to organize other sensory information, and to provide simultaneous and continuous information from near and distant locations.

Burton White (1975, p. 121) noted further that 20% of all waking hours of a child aged eight months to three years is “spent simply staring at one thing or another.”


- Photo of green color to attract child to computer
- Photos of child uses lightbox for literacy
- Photo of child using CCTV
- Photo of child learning close to read a globe

**Literary Mode**  
The sensory channel the student will use for reading and writing


**Learning Media**  
Materials-diagrams, models and real objects


Methods-imitation, prompting, listening, demonstration




**Four Unique Learners**




Elli-totally blind, braille and audio



Brynn-low vision, low vision devices



Andrew-20/400, dual print/braille



Caleb-multiply involved, objects/auditory

**Assess Child Preferences**

- What motivates the child? This becomes the topic for the child's interactions.
- What kinds of toys or objects does the child enjoy?
- How kind of "games" does the child enjoy?
- Does the child have a favorite toy or game?
- Are there toys or games the child does not enjoy?
- What does the child show the greatest reaction to?

- Photo of child and O and M instructor using a door as for visual display of literacy materials
- Photo of personal literacy book for child who likes goldfish crackers as snack

**Communication is a part of the literacy path.**

For many children with sensory loss and additional disabilities, we cannot proceed down the path of literacy until we ensure that the student has a system in place for receptive and expressive communication.

### Strategies

- Understand that every child communicates.
- Understand how every child communicates.
- Advocate for and set the stage for opportunities communication – every day, all day – expressively and receptively.

### Step Two: Communication

To progress toward true literacy, a student must:

- ✓ Understand that he or she is capable of being a communicator.
- ✓ Understand that he or she has messages that have meaning to other people.
- ✓ Understand that he or she can convey this meaning through body movements, facial expressions, objects, and, ultimately, symbols.

### Questions to Ask:

- Is the student's communication intentional?
- How does the student communicate?
  - Receptive
  - Expressive
- Does the student have a communication system?
- Is it functional? **How is vocabulary increased?**
- What is the student's primary response mode?

## Assessment Tool



The **Communication Matrix** (©1996, 2004 Charity Rowland) is a **communication skills assessment instrument**.

<http://www.designtolearn.com/pages/matrix.html>

Communication Level	Intervention Goals
I. Pre-intentional Communication	Establish purposeful behavior by building responsive environment
II. Intentional Communication	Respond to potentially communicative behavior
III. Unconventional Presymbolic Communication	Shape nonconventional gestures into conventional gestures/ target symbol use
IV. Conventional Presymbolic Communication	Teach 1:1 correspondence between symbols and referents
V. Concrete Symbols	Teach 1:1 correspondence between abstract symbols and referents
VI. Abstract Symbols	Teach the combination of symbols into 2 and 3 symbol utterances
VII. Language	Expand semantic and syntactic abilities.

### Language and Literacy

- Begin at birth and continue over one's lifetime. Reading should be considered a language process.
- Are intertwined and independent.
- Have developmental stages.
- Will come easily for some learners and take more time and attention for others.
- Are learned optimally when their experiences are relevant and meaningful, and they have opportunities for playful activities.

(Weikel Ranweiler, 2004)

## Vocabulary!

- 12 months - understands 50 words, says 50 words at 18 months. By first grade, understands 10,000 words
- 18-24 months – expressive language takes off. Our goal: meaningful vocabulary exposure.
- By preschool age, children benefit from decontextualized or nonimmediate talk and cognitively challenging conversations.

## Vocabulary Research

- Well developed vocabulary in preschool is predictive of higher reading achievement.
- Kids starting school with a good vocabulary learn new vocabulary at 2x the rate as their peers. Early readers score higher on language screening tests.
- Early readers come from homes where there is rich evidence of oral language. Vocabulary children understand before they start to read is directly related to how well they will read (Strickland & Riley-Ayers, 2006).

## Oral Language - BVI

- Children may slow down in language development at the end of the second year of life – loss of incidental learning may reduce topics. We need to be deliberate in hands-on exposure to experiences that fuel new vocabulary (and, thus, background information).
- Watch pronouns (may be on time with understanding) – use possessives.

## Preschool Ideas for Vocabulary Development

- Add a new word to greeting time.
- Play “guess what I am doing”
- Play “name the parts” game.
- Find opportunities for dictation.
- Provide rich audio description
- Build in opportunities for decontextualized talk.
- Provide dramatic play opportunities with props.

## Encouraging Conversations

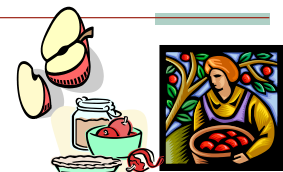
- Follow the CAR:
  - Comment and **wait**
  - Ask questions and **wait**
  - Respond by adding more



Reading aloud to a child is so important – and interacting with the child about the story is incredibly important. Engagement and interaction are key.

## Step Three: Concept Development

- A concept is a general idea that develops through repeated experiences with specific events.
- Concepts are the ideas that give meaning to the world. (Miles, 2004).
- children need repeated experiences with specific examples to generalize concepts.



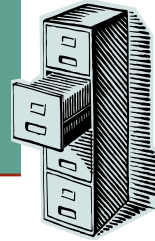
**Example: Apples can be the actual apple, an apple cut up, applesauce, dried apples, apple pie, apple juice.....**



## Strategies

- Tease out concepts and skills
- Identify concepts involved in every day activities
- Be deliberate with concept development.
- Be full-bodied with concept development.
- Give time needed for concept development
- Anchor and apply (same/different) - use for background

## Concept Development



- Concepts build upon one another.
- Picture a file cabinet in your brain – as new concepts are learned, new file folders are added and as a concept is expanded, more information is added to a particular file folder.

## Know (relatively) Age Appropriate Concepts

### 2- 4 Year Olds

up / down; in / out; inside / outside; under / on top; before / after; big / little; long / short; hard / soft; hot / cold; fast / slow; today / tomorrow / yesterday

### 4 Year Olds

above/below; after / before back / front; bottom / top first / last; left / right; lowest / highest; empty / full; Bigger / smaller / shortest / thick / thin; beginning / end;

What are the concepts attached to the skills you are teaching? Fuel meaningful vocabulary in daily routines ... you are building background knowledge ... more file folders in the cerebral drawer for latter anchor and apply activities.

## Koenig and Farrenkopf (1997)

### Experiences

- With friends/pretending
- Sharing, helping, working together
- At home, in the community, at a farm
- With living creatures, plants, insects, nature
- Getting into trouble
- With eating, with books, with weather
- With different types of transportation

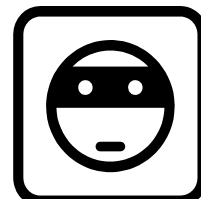
## Ideas for Concept Books

- *Book of Curves*: plastic lid, bottle top, penny
- *Fastener Book*: staple, glue, paper clip, twist tie
- *Pipe Cleaner Book*: straight, bent, waves
- *Point Book*: toothpick, fork, triangle

Anna Swenson, *Beginning with Braille*

## Literacy Development Offenders

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- **Opportunity**



### Step Four: Materials and Routines

- Research has shown that the best readers are those who LIKE to read (Guthrie, 2002).
- If family members believe literacy is important, enjoy reading, and demonstrate the purpose ... the child is likely to follow the lead. (Think about what can happen when EC / TVI people model reading!)
- Most learners have 1,000-1,700 hours of one-on-one picture book reading before entering school.

### Strategies

- Repetition
- Meaningful Repetition – meaningful opportunities
- Did I Mention Repetition?
- Appropriate adaptations
- The Right Equipment is Available – low and high tech

### Early Literacy Routines

- Reading aloud (repeatedly and with interaction)
- Exposing and highlighting student to new words
- Sharing books
- Providing print-rich environments (sign ins, voting, signs)
- Observing others reading and writing
  - grocery lists
  - computer time
  - books, magazines, audio books
  - preparing mail / reading mail
  - library

### The Power of Reading Aloud

“Reading achievement has been linked to the number of hours of being read to during the preschool years.” (Wells, 1986)

#### Key Concepts about print

- cadences of written language
- notion that print carries a message
- means to convey information
- opportunities for vicarious experiences



- Photo of young child reading book propped on couch
- Photo of child with low vision reading book with brightly colored pages
- Photo of child using magnification to read book

### Challenge: Picture Related Learning

Early literacy materials are especially loaded with pictures.

- Add interest
- Often offer key information to the text. Add meaning to story
- Encourage an active role
- Guide as children pretend read

Pictures may actually deter parents from reading books to their child.

- Photo of book under CCTV
- Photos of tactile pictures

### Suggestions for Intervention

- Use objects as story props
- Use tangible symbols as story props
- Add tactiles to storybook
- Make a book with tactiles that have meaning to the student. Think about the student's perspective.

### Familiar Story Boxes/ Bags

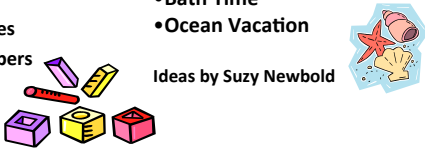
Includes a book and real objects.

**Real Experience" Story Bags**

- ❖ Family
- ❖ Pets
- ❖ Shapes
- ❖ Numbers

- Trip to Gramma's House
- Walk Outside
- Bath Time
- Ocean Vacation

Ideas by Suzy Newbold



### Increase Comprehension

**Our interaction with the book and the student MATTERS!**

- Talk about new words before reading
- Link story to student's experiences
- Review what happened
- Predict what will happen next
- Stop to ask who / what / why questions
- Look at pictures or tactile cues for more information.
- Read interactively.
- Ensure that writing turns into reading and that reading expands into writing.

### Reading Aloud Strategies

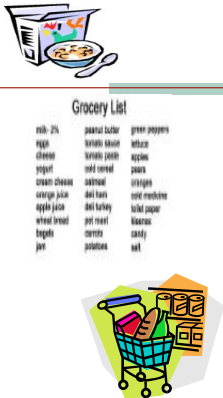
- Draw connections to the story content and your life and the children's lives.
- Ask open ending questions about the story content.
- Talk about the characters, what they are feeling, doing etc.
- After the story, make a connection from the story to the next activity (as possible). Put the book in a set spot for the children to go to after it has been read.

### Shared Storybook Tips

- Let children help turn the pages, even if a few pages are skipped.
- Point to the print or run fingers over the braille as the book is read.
- Discuss pictures, illustrations, and story objects.
- Relate the book to children's and family's experiences (world knowledge).

*BrainWonders, 2001a*

### Literacy in Play



Provide literacy props to increase opportunities to practice and refine skills.

Dramatic play begins the second year of life and peaks between 6-7 years.

**Grocery List**

egg	2% milk	peanut butter	green peppers
chicken	teriyaki sauce	lettuce	
spaghetti	red onion	apples	
cream cheese	bacon	bananas	
orange juice	hot sauce	corn meal	
apple juice	hot turkey	toilet paper	
wheat bran	pot roast	kiwi shoe	
bagels	celery	socks	
pot	potatoes	socks	

### Suggestions for Intervention

- Use objects as story props
- Use tangible symbols as story props
- Add tactiles to storybook
- Make a book with tactiles that have meaning to the child. Think about the child’s perspective.

### Assistive Technology


- Other assistive technology can also increase children’s participation in emergent literacy experiences. For example, some children may require a device to help hold a book or a special chair to stabilize their body.
- Simple modifications to common emergent literacy activities, such as attaching a plastic clothespin to the page of a book so that children can turn the pages themselves, can greatly enhance experiences for children with disabilities.

*Koppenhaver, 2000*

### Craig’s 1996 Research

Writing Activities	Potential Braille Readers	Potential Print Readers
Scribbling	27.6%	72.2%
Copying letters or words	14.5%	44.4%
Asking about adult W / R	21%	82%
Placing hands on braille being read	42.3%	82%

### Writing Routines



Every child should have his or her “own pen.” Having an alternative pen NOW will increase the chance the child will write later (Christenson, 2003).

“Successful readers and “pencil and paper” kids.” (Smith, 1989, p. 528)

“Early writing activities are generally more visible than early reading tasks.” (McLane and McNamee, 1990).

### To Achieve Literacy

To achieve literacy, there must be reading.  
 To achieve reading, it must be meaningful.  
 To achieve meaningfulness, there must be communication.  
 To achieve communication, there must be experience.  
 To achieve experience, there must be opportunity.  
 To achieve opportunity, there must be care & understanding.

Adapted from an original quote by Laurie Hinzman, LaFayette Elementary School, San Diego, CA