

# **Developing Phonological Awareness Skills in Children with a Vision Impairment and Additional Disabilities**

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Beth Foale – Speech Pathologist

RIDBC Alice Betteridge School



**Royal Institute for  
Deaf and Blind Children**

# Outline of Presentation

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- What is phonological awareness?
- The development of phonological awareness skills – a hierarchy
- What role does phonological awareness play in the development of literacy skills in children with a vision impairment?



# Outline of Presentation

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- Considerations and adaptations for students with a vision impairment and additional disabilities
- Assessment of phonological awareness skills in children with a vision impairment and additional disabilities
- Contexts in which phonological awareness activities can occur



# Outline of Presentation

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- Early listening skills
- Phonological awareness activities with video examples including;
  - syllables, rhyme & alliteration
- Additional activities to support literacy and language development
- Useful resources, websites & references



# What is phonological awareness?

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- **Phonological awareness** is the understanding of the sound structure of a language (Love & Reilly 1995)
- It includes understanding that words are made up of syllables (beats) and phonemes (speech sounds)



# What is phonological awareness?

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- Phonological awareness also includes the ability to;
  - identify and generate words which rhyme, e.g. cat/mat
  - blend and segment sounds in words, e.g. s-i-t
  - manipulate sounds in words, e.g. say the word ball without the “b”



# What is phonological awareness?

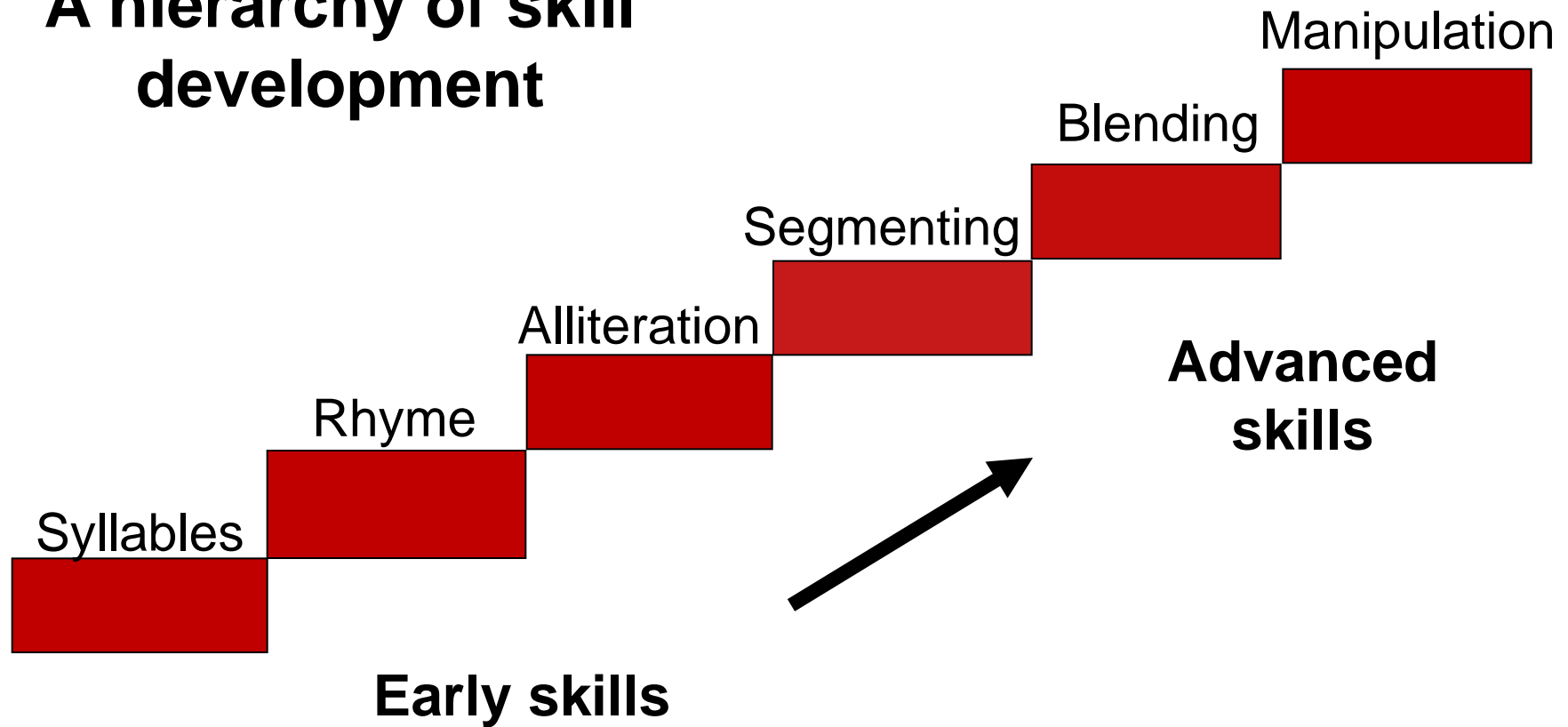
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- **Phonemic awareness** is the ability to identify and manipulate speech sounds
- **Phonics** is the association between letters and their corresponding sound



# The development of phonological awareness skills

## A hierarchy of skill development





# The development of phonological awareness skills

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- Phonological awareness starts by analysing larger units (words in sentences) -> smaller units (individual speech sounds in words)
- Sentence level – identifying the words in a sentence
- Word level – identifying syllables -> identifying sounds



# The role of phonological awareness in literacy development

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- Research has shown that phonological awareness plays an important role in learning to read and spell (Love & Reilly 1995)
- An awareness of speech sounds in words is necessary to understand the alphabetic script which is the basis for a written language



# The role of phonological awareness in literacy development

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- Other predictors for success in reading include;
  - vocabulary
  - letter name knowledge
  - intellectual ability
  - receptive and expressive language skills including spoken language skills



# The role of phonological awareness in literacy development

- The development of phonological awareness skills for literacy outcomes is just as important for children with;
  - a vision impairment (Hatton et al, 2010)
  - an intellectual impairment (Van Tilborg et al, 2014)
  - a physical disability, e.g. cerebral palsy (Peeters et al, 2009)

as it is for their non-disabled peers



# Considerations for students with VI and additional disabilities

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- The students engaging in phonological awareness activities at RIDBC Alice Betteridge School demonstrate the following;
  - a severe vision impairment, many with light perception only
  - hearing within normal limits
  - an intellectual impairment in the mild-moderate range



# Considerations for students with VI and additional disabilities

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- may have physical disabilities, e.g. Cerebral Palsy
- understand uncomplicated spoken language, e.g. simple instructions, yes/no questions and some early concepts, e.g. loud/soft, fast/slow
- some students are verbal, others require specific cues to elicit responses, while some have limited verbal skills



# Considerations for students with VI and additional disabilities

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- Students with a VI and additional disabilities can participate in phonological awareness activities with appropriate modifications
- The student's ability to understand phonological awareness concepts will depend on their intellectual abilities and receptive language skills
- Students may use different methods to participate in activities e.g. use of a big mack switch or real objects for a non-verbal student



# Considerations for students with VI and additional disabilities

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- Communication Partner Strategies, e.g. providing additional response time
- Knowledge of the student's receptive, expressive and social communication skills
- Knowledge of a student's physical abilities





# Assessment of phonological awareness skills

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## Approaches to assessment

- The assessment process is ongoing and can be integrated into appropriate learning contexts throughout the day
- The length of time for an assessment may need to be shorter due to factors such as attention of the student, fatigue etc.



# Assessment of phonological awareness skills

## Assessment Tools

- Various standardised tests are available to assess phonological awareness skills
- Phonological Awareness Screening Test – in *A Sound Way* (Love & Reilly 1995)
- Develop individualised assessments based on the phonological awareness skills to be assessed



# Assessment of phonological awareness skills

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- Modifications to existing assessment tools include;
  - using familiar vocabulary, e.g. names of known people
  - providing additional examples
  - simplification of language in the instruction



# Assessment of phonological awareness skills

- using the same language to describe key concepts, e.g. always saying “starts with” when addressing alliteration
- using sentence completions to facilitate responses, e.g. *“Beth starts with the sound...”*
- offering binary choices for responses
- providing real objects especially for students who are non-verbal



# Contexts for phonological awareness activities

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- Individual, small group or whole class
- Motivating and meaningful contexts, e.g. in relation to a familiar story book
- Routine and/or daily activities, e.g. morning assembly/circle
- During braille/print literacy tasks
- Naturally occurring situations during the day



# Selecting books

- Select books which include features such as the following;
- **alliteration**, e.g. *in the jingle, jangle jungle on a cold and rainy day*
- **rhyme**, e.g.

*when we go to Grandpa's house*

*I'm as shy as a little grey mouse*



# Selecting books

- a **repeated line(s)**, e.g. “*Grandpa, Grandpa come quickly what’s that noise?*”
- **onomatopoeia** or a word which imitates the sound an object makes, e.g. “*nee naw*” to describe the sound of the fire engine
- additional sounds can be easily sourced & provided to support the student’s understanding of the story, e.g. animal sounds



# Selecting books

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- real objects/props to represent the main ideas in the story can be readily sourced
- understanding the plot/content of the story is not dependent on the pictures/illustrations





# Selecting books

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- Phonological awareness activities are carried out when the students are familiar with the story/key vocabulary
- Phonological awareness activities incorporate;
  - the vocabulary from the story
  - the real objects (props) used when discussing the story



# Early listening skills

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- Students can develop specific listening skills as a precursor to phonological awareness
- Early listening skills can be applied to;
  - younger children and/or
  - students emerging in their understanding of language, e.g. pre-symbolic communicators



# Early listening skills

## Awareness/Attention to sounds

- experimenting with everyday objects and the sounds they make, e.g. keys, wooden blocks, metal spoon
- listening to musical instruments, e.g. shakers, drum, bells, triangle, xylophone
- attending to environmental sounds that an adult comments on, e.g. *"I can hear a bird."*



# Early listening skills

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## Recognising & Identifying Sounds

- The student; i) recognises ii) identifies familiar voices
- The student; i) recognises ii) identifies familiar, everyday sounds, e.g. telephone
- The student i) recognises ii) identifies animal sounds



# Early listening skills

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## Concepts relating to sounds

i) discriminating (same/different), ii) identifying iii) producing the following;

- loud vs soft sounds
- long vs short sounds
- fast vs slow rhythms



# Syllable activities

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- Students can participate in syllable activities using a variety of methods including;
  - tapping the beats/syllables on a drum
  - shaking the bells/shaker for each syllable/beat
  - stamping their feet for each syllable/beat
- Consider the physical abilities and preferences of each student.



# Syllables - skill development

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- The student listens to and then copies a simple clapping/tapping pattern performed by their Communication Partner
- The student listens while their Communication Partner i) claps/taps the beats as they say a word and ii) counts the number of beats



# Syllables - skill development

- The student is assisted by their Communication Partner (if appropriate) to perform the beats in a word using their preferred method, e.g. tapping drum
- The student taps out the beats in word, e.g. *An-nie*
- The student identifies the number of beats or syllables in a given word, e.g. *Sat-ur-day* = 3 *beats*





# Rhyme activities

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- Explain the concept of rhyme, e.g. *when 2 words sound nearly the same, they rhyme*
- Provide numerous example of words which rhyme
- Use semantic cues and/or phonemic cues to elicit correct responses, e.g. *I'm thinking of a word which rhymes with sat...it's an animal which goes meow (semantic cue)*



# Rhyme activities

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- For students who are non-verbal responses can be provided using;
  - voice output devices, e.g. big mack switch
  - software programs with switch access, e.g. Choose it Maker 3



# Rhyme activities

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- use of real objects, i.e. find objects for rhyming pairs, e.g. sock/rock, hat/mat
- yes/no responses, e.g. *does cat rhyme with sit?*  
shake head = no & “ah” = yes



# Rhyme - skill development

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- The student listens to rhyming stories, poems and songs on a regular basis
- The student identifies if 2 words rhyme/don't rhyme, *e.g. do hat and cat rhyme?*
- The student identifies the word which rhymes with a given word from a choice of 2, *e.g. which word rhymes with cat...sit or hat?*



# Rhyme - skill development

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- The student completes a line in a familiar rhyme or story with the appropriate rhyming word
- The student produces words which rhyme, e.g. provides a word which rhymes with *cat*



# Alliteration activities

- Explain the concept of alliteration, e.g. *the sound a word starts with*
- Provide many examples & create alliterative phrases relevant to the student, e.g. *Melinda makes music or Angie ate an apple*
- Emphasise & repeat the initial sound, e.g. *book starts with b...b..b..b for book or sun starts with s....SSSSun*



# Alliteration - skill development

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- The student listens to stories, rhymes and songs that contain alliterative phrases, e.g. *Fee, fie, fo fum*
- The student listens as the initial sound in a word is pointed out, e.g. *Tom starts with the sound, “t”... “t” for Tom*



# Alliteration – skill development

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- The student is able to identify the sound a word starts
- The student provides the sound a given word starts with
- The student generates other words which start with the same sound, e.g. “*b*” for *book* and “*b*” for *bike*





# Additional literacy activities

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- Discussion/exploration of key vocabulary and concepts in the story
- Comprehension questions
- Practical, “hands on” activities exploring real objects, craft activities etc
- Follow up in other classroom activities and at home



# Additional literacy activities

## Literacy Activities Proforma

TITLE OF BOOK: *Edwina the Emu* AUTHOR: Sheena Knowles  
& Rod Clement

Key Vocabulary	
Nouns	emu, Edward, Edwina, zoo, eggs, nest, job, chimney, taxi bus, meal, hat, sausages, ballet, pirouette, waiter
Verbs	played, sat, announced, dance, whirled, waltzed, twirled, leapt, twisted, shouted, laid, joking, choking, look, hop, hired
Descriptive words (adjectives+ adverbs)	entwining, little, lovely, bristled, black, quick, late, below, last, YEEK!

Phonological Awareness	
Syllables	1 – zoo, hat 2 – emu, joking 3 – Edwina, sausages
Initial sound	zoo, sat, nest, pay
Medial sound	emu, look, fun, back
Final sound	sat, job, egg, Yeeek
Rhyme	zoo/two, fight/night, fun/one, hat/that, fast/last, share, chair
Segmenting/ Blending	: figh-t, b-u-s, l-au-gh, f-ee-t, r-e-s-t

## Literacy Activities Proforma

### Comprehension Questions

What animal is Edwina & Edward?  
How many eggs did Edwina lay?  
Who stayed on the nest? Who went to look for work?  
How did Edwina get to work?  
Did Edwina get the job as a ballet dancer?  
How do you think Edwina felt when she didn't get the job as a ballerina?  
Which job was the best one for Edwina?  
What is a chimney? What does a chimney sweep do?  
How did Edwina feel when the man said he'd eaten 10 eggs from a nest?  
How many baby emus hatched from the nest?  
What did they call the last baby emu? Why did they call it this?

### Assistive Technology

- ipad – ask Siri for general knowledge questions or about unfamiliar vocabulary, e.g. pirouette
- access you tube (to find a clip of a ballet dancer) <http://accessyoutube.org.uk/>

### Additional Activities

#### Craft activities:

1. make an emu
2. make a nest (gather twigs, leaves, sticks from the playground)

### Resources

Real objects/props	Auditory/Sound Cues
<ul style="list-style-type: none"> <li>• ballerina costume (tutu) + ballet shoes</li> <li>• broom (for clearing cobwebs)</li> <li>• teacup, milk &amp; saucer</li> </ul>	<ul style="list-style-type: none"> <li>• music (ballet dancing)</li> <li>• sound of an emu</li> </ul>



# Useful resources

- Big Mack switch - record spoken messages or sounds, then the student can press the switch to play the message



- [www.findsounds.com](http://www.findsounds.com) - a free website which searches the Web for sound effects



# Useful resources

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- Choose it maker 3 - [www.chooseitmaker2.com](http://www.chooseitmaker2.com)
- Choose It Maker 3 online enables photographs, symbols, text and sounds to be used in cause and effect and/or choice-making activities
- It is particularly useful for children with special needs and/or physical disabilities who require switch access



# Useful resources

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- Love E. & Reilly, S. (1995). A Sound Way. Melbourne: Longman, Australia.

[www.loveandreilly.com.au](http://www.loveandreilly.com.au)



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# Contact Information

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Beth Foale

Speech Pathologist

RIDBC Alice Betteridge School

Email: [Beth.Foale@ridbc.org.au](mailto:Beth.Foale@ridbc.org.au)

Ph: (02) 9872 0392



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