Stages of Literacy
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Beginning readers in the USA
Looked at predictors of reading success or failure
Pre-readers aged 3-5 yrs
Looked at variety of abilities
- IQ
- Speech and language abilities
- Attention span
- Motor skills
- Phonological processing

Most effective predictors (in order of importance)
1. Phonological awareness
2. IQ

Knowledge of letter/sound correspondence also important

(Bond & Dykstra 1969, Chall 1967)

Bryant & Bradley (1983)
- 400 4-5 year old (non-readers) tested on ability to:
  - Detect alliteration
  - Detect rhyme

Children’s reading and spelling were tested again 4 years later (age 8-9)

Rhyme detection ability at 4-5 years of age most effective predictor of literacy progress 4 years later.
Phonemic awareness

Skills include:
- Ability to identify initial, medial and final sounds
- Tell the difference between individual sounds (auditory discrimination)
- Phoneme manipulation/transposition
- Segmentation and blending

Phonological Awareness

Much broader term incorporating phonemic awareness + the following:
- Awareness of sounds and sound patterns in language, e.g. rhyme
- Awareness of the rhythm of language
- Syllabification
- Word retrieval

Development of Phonological Awareness

Rhyme

Gradual development from earliest stages

Syllabification

(previous understanding)

Sentences ➔ Words
Words ➔ Syllables
Words/syllables ➔ Sounds

Syllabification

(Current understanding)

Sentences ➔ Words
Words ➔ Syllables
Words ➔ Onset + rime
Syllables ➔ Sounds

(Goswami & Bryant (1990))
“The majority of preschoolers can segment words into syllables. Very few can readily segment them into phonemes.”

The more sophisticated stage of phoneme segmentation is not reached until the child has received formal instruction in letter-sound knowledge.”

*Predicting reading and spelling difficulties (Snowling & Backhouse 1996)*

### Why is the onset + rime approach so important?

It utilizes an awareness of rhyme (sound patterns) to enable the child to recognise spelling patterns.

It simplifies the task – word families instead of individual words.

### It develops analogical transfer – the ability to apply knowledge learned in one context to a different context.

Enables the child to work with word families:

**“If I can spell ‘ball’, then I can spell ‘wall’.”**

### Cuts the processing load:

**string**

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s / t / r / i / ng
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*(5 elements to sequence and remember – a huge load on sequencing and working memory)*

### It avoids confusion over vowel sounds:

Teach ‘a’ sound as in ‘cat’

Then meet ‘a’ in ‘all’, ‘-aw’, ‘-ark’, etc

### Most importantly:

It teaches at a level of natural phonological development

*Moral:* Early spelling or work with a learner with learning difficulties needs to be based on onset + rime.
Onset + rime can and should be used with more advanced learners. Otherwise they will not develop analogical transfer. It need not be used exclusively.

- Rhyme awareness leads to the ability to use onset + rime.
  Link awareness of sound patterns with later awareness of spelling patterns – teach word families.

- Onset + rime awareness is a natural stage of phonological development.
  Use onset + rime approach particularly in the early stages to simplify the task and aid memory.

- Phonemic awareness does not develop naturally, but as a result of literacy teaching.
  Teach and develop phonemic awareness as part of your spelling programme, but be aware of the stage your child is at – provide appropriate scaffolding as necessary.

- Poor early readers often have poor syllabification.
  Develop the sound skills of syllabification. Check that your learner can divide sentences into words and clap rhythms first.

Summary

- Rhyming skills at 3-5 years are the single most accurate predictor of later reading success.

Therefore: developing rhyming skills is a high priority.
Onset + rime awareness leads to analogical transfer – the most important reading/spelling skill.

Use the word family approach, even with more advanced learners, to develop analogical transfer. Take every opportunity to teach your learner to draw analogies – spelling and reading.

Early phases of literacy development

- Logographic phase
- Alphabetic phase
- Orthographic phase

Logographic Phase

- Basic sight vocabulary – high frequency words or words with special significance
- Words recognised holistically – from overall shape
- Similar looking words confused
- No understanding of letter/sound correspondence

Alphabetic Phase

- Recognition of sound/letter correspondence
- Decoding and encoding take place
- Phonic knowledge used
- Pupil can spell simple, regular words
- Errors are phonetic (coff)
- Lacks sophisticated understanding of word structure
- Reading slow and laboured – limited fluency

Orthographic Phase

- Rapid whole word recognition – holistic
- Words become sight vocabulary
- Reading fluency achieved
- Understanding of sophisticated spelling patterns (-ough)

(From: Frith, 1985) Beneath the surface of developmental dyslexia
Neurological Basis

Brain Systems for Reading

A Neural Signature for Dyslexia

Compensatory Systems

Conclusion – reading systems

Dyslexic Learners have:
- An impaired occipito-temporal (word form area)

They therefore:
- Over-rely on the wrong areas – Broca’s area and Parieto-temporal area
Broca's area and the parieto-temporal areas therefore develop as instruction progresses.

Wrong strategies being employed.
Wrong areas being developed.

Consequence: Reading fluency never develops correctly.

Correct process

- Learner analyses and correctly reads the word several times
- Uses the word analysis systems
- Neural model of word is formed
- Stored in the occipito-temporal
- Word can now be activated automatically – fluency achieved!

Teaching Implications

Teachers need to:
- Practise and develop word analysis strategies
- Provide the right activities/practice to transfer the word into the occipito-temporal

**In other words – make the word into sight vocabulary**

How?

- Speed reading
- Sight vocabulary games
- Word flash activity (Steps)
- Targeted reading practice – geared towards developing reading fluency, not decoding ability!