

## The Role of Sequence in Effective Processing

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## Questions to consider

- How does the brain bring order to information?
- What sequential patterns does the brain need to learn and use while reading continuous text?
- How does the brain use sequence and order as it integrates information from different sources?
- How does the use of sequence and order change over time as the processing system develops?

*How well you access it depends on how well you stored it in the first place. How do you become more savvy about the way you remember things? Have a good system. Notice your errors and try to fix them.*

-Clay, 2006, *Part Two*, quote from Dr. Larry Squire, facing title page

The beginning reader is a little like the novice driver out in the car on the road for the third or fourth time, unsure of what to attend to first, and wondering how he will ever get all the information into the right decision-making sequence.

## Language Sequence - Syntax

- English language is based on the order of the words and phrases – syntax.
- Meaning is lost if the syntax is violated.
- Children have learned to monitor their speech for correct syntactic order.
- Children anticipate syntax.

## Sequences in meaning-making

- Both narrative and factual materials have sequence/episodes, related topics
- Good readers learn the types of sequences associated with different genres.
- Good readers direct their attention to relevant information that leads to a meaningful organization of the information so far.

## Meaning provides

- The difference between chaos and order
- An organized network of experiences that inform perceptions of the world

Dorn, L. (2006), A Closer Look at Meaning in Reading. *The Reader: Arkansas Reading Association Journal* (20), pp. 1-6.

## Orientation to the story before reading

– for language and meaning  
Make the child familiar

- with the story,
- with the plot,
- with the phrases of language that he might never have heard,
- with unusual names and new words,
- and with old words used in an unusual way.

Clay, 2006, Part Two, p. 91

## Language

Another 'wrap-up' comment is 'How did that sound?' after a good reading.

Clay, 2006, Part Two, p.95

At every book level the child should be able to 'hear' that his reading sounds like his speaking.

Clay, 2006, Part Two, p. 96

## Brief review of the story after the first reading

A good question can reveal a wealth of understanding...

Good questions give the message that the whole story was the point of the reading activity and it lets the teacher know what the child has attended to and understood.

Clay, 2006, Part Two, p. 97

## Sequence of visual information – serial order

- Directional behaviors related to position and movement
- Order of letters within a word or letter cluster
- Order of words across a line of continuous text
- Return sweep to next line
- Left page before right page

## Layout can cause a challenge

Teachers are often surprised when they shift a child from one line of print per page to two lines of print.

...Could it be a shake-up for the whole directional schema?

Clay, 2006, Part Two, p. 20

## The reading process

When we activate the thinking process, we take bits and pieces of data and actions and behaviors and string them together to fit a new set of demands or circumstances, creating a novel plan of action. We reshape raw materials into a properly timed sequence.

Ratey, J. (2001). *A user's guide to the brain: Perception, attention, and the four theaters of the brain*. NY: Pantheon Books, p. 149.

*The child must learn to:*

- attend to some features of print,*
- follow rules about direction,*
- attend to words in a line in sequence, and*
- attend to letters in a word left to right in sequence.*

Clay, 2006, Part Two, p. 3

When do we teach for sequence in visual information?

Anywhere in the lesson from the beginning of the series of lessons, except in Hearing and Recording Sounds in Words (where a call for sequence comes later).

### *Literacy Lessons...*

•*Part One, p. 42 – pointing to objects in a row*

•*Part Two, 'Learning about direction', pp. 5-14*

•*Part Two, 'Locating what to attend to in print' pp. 15-18*

•*Part Two, pp. 40-41 – Expanding the meager knowledge of words*

•*Part Two, pp. 42-46 – I can take words apart*

*Capture the child's attention,  
notice what the child is aware of,  
give clear demonstrations,  
and encourage fast recognition.*

## Spatial Processing

Getting organized in space

- Knowing left to right
- Working with the margin of the page
- Adding space between words
- Picturing characters while reading

*Literacy Lessons, Part Two,  
'Reading Books', p. 88:*

Children who have many skills and a fair grasp of letters and words may still find it hard to pull all this information *together* when they are moving across lines of continuous text.

On the one hand the child must sort out what to attend to on the page of print and in what order to use which pieces of information (*awareness and attention*).

On the other hand he has to call up things he already knows from different parts of his brain to meet up with the new information in print in the text he is looking at (*the integration of different kinds of information*).

The opportunity to bring these two things together occurs when the child is reading books and writing texts.

*Literacy Lessons, Part Two,*  
'Finding and using the information  
in the print', pp. 99-117

*Literacy Lessons, Part Two,*  
'Linking sound sequences to  
letter sequences: massive  
practice in text reading',  
pp. 118-124

*Literacy Lessons, Part Two,*  
'Taking words apart while  
reading',  
pp. 125-137

*Literacy Lessons, Part Two*  
'More about attending to words  
in isolation', pp. 138-149

*You relate what you hear or see to things  
you already understand.  
The moment of truth is the moment of  
input,*  
•*how you attend,*  
•*how much you care,*  
•*how you encode,*  
•*what you do with it,*  
•*and how you organize it.*