Why Not Sound-it-Out? A Story of Monitoring & Searching

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Experts:

(Bransford, Brown, Cockling, 1999)

- Notice *meaningful patterns of information* that are not noticed by novices;
- Acquire a great deal of content knowledge that is organized in way that reflect a *deep understanding of their subject matter;*
- "Conditionalize" knowledge upon a set of circumstances that reflect *context for applicability*…not isolated facts or propositions.

Science

Science is the belief in the ignorance of experts.

Physicist Richard Feynman

Science and Ignorance

Science, unlike religion, is based in two types of ignorance:

1. It assumes we don't know everything worth knowing
2. It accepts that some of the things we know could be proven wrong as we gain more knowledge.

(Harari, 2015)

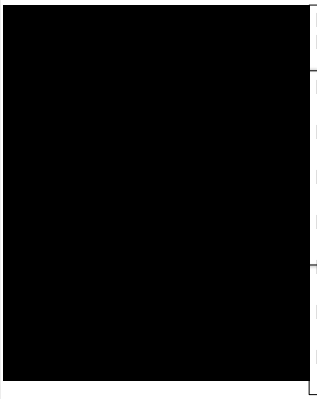
Scientists are Tentative

Reading and writing are complex processes "and will not be easy to observe and explain. We therefore need to be tentative and flexible because we could be wrong in our explanations from time to time, or from this pupil to that pupil."

(Clay, 2005a, p. 2)

Questions for Reflection

- What do you notice about this child as a reader?
- If you had this child in a classroom and had time to work with him both individually and in groups, what would you recommend?
- What other types of information would you have found helpful?



I Can Draw (cover)
I Can Draw (title page)

I can draw a bird.

I can draw the body.

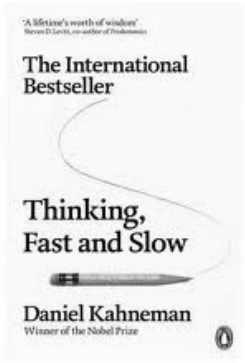
I can draw the beak.

I can draw the eyes.

~~I can draw the wings.~~

I can draw the legs.

I can draw the bird.



System 1 & System 2

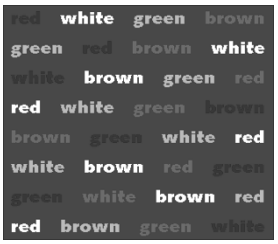
System 1 operates automatically and cannot be turned off at will, errors of intuitive thought are often difficult to prevent.

System 2 is effortful thinking, but it is too slow and inefficient to serve as a substitute for System 1 in making routine decisions. It can monitor mistakes when the stakes are high.

(Kahneman, 2011

System 1 Processing: Stroop Test

Say the color that each word is printed in:



From http://snre.umich.edu/eplab/demos/st0/stroopdesc.html

Item Knowledge

Change over time is recognised by teachers who can judge a word read or written to be:

- new
- only just known
- successfully problem solved
- easily produced but easily thrown
- well known (recognized in most contexts)
- known in many invariant forms.

(Clay, 2001, p. 123)

Sight Words

Readers read familiar words by accessing them in memory, called sight word reading. With practice, all words come to be read automatically by sight, which is most efficient, unobtrusive way to read words in text. (Ehri, 2005, p. 167)

VRI

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Cognitive Effort

Effort is required to maintain simultaneously in memory several ideas that require separate actions, or that need to be combined according to a rule.

Kahneman, 2011, P. 36

Monkey Business Illusion

http://www.theinvisiblegorilla.com/videos.html

Don't Sound It Out

Effort is required to maintain simultaneously in memory several ideas that require separate actions, or that need to be combined according to a rule.

Kahneman, 2011, P. 36

Law of Least Effort

If there are several ways of achieving the same goal, people will eventually gravitate to the least demanding course of action.

In the economy of action, effort is cost, and the acquisition of skill is driven by the balance of benefits and costs.

Laziness is built deep into our nature.

Kahnemann, 2011, p. 35

Simplified Question

When faced with a difficult question, we often answer an easier one instead, usually without noticing the substitution.

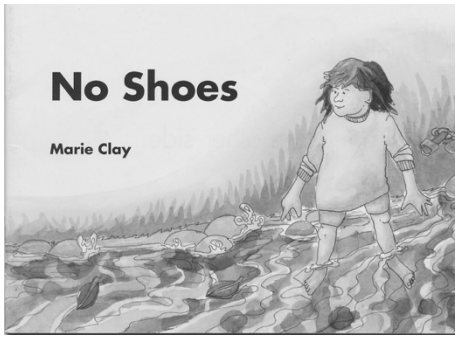
(Kahneman, 2011)

(The woman) has a orange and red and green and purple and pink hat.

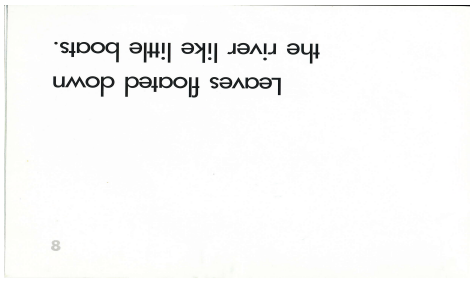
(Now) the monkey has the green a red a purple and black hat too.

"I know it really says orange hat, but the colors."

Concepts About Print

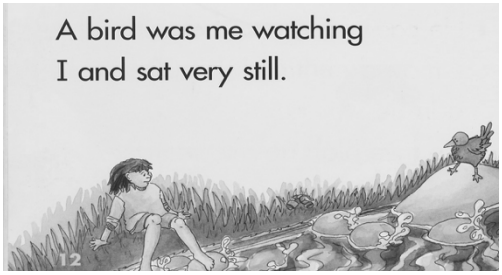


Directionality



Anna & Grandma Reading

Monitoring Known Words



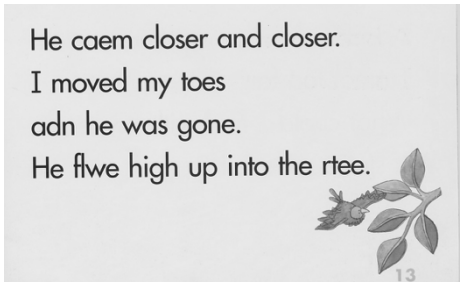
"What's wrong on this page?"

Intuition & Recognition

The situation has provided a cue; this cue has given the expert access to information stored in memory, and the information provides the answer. Intuition is nothing more and nothing less than recognition.

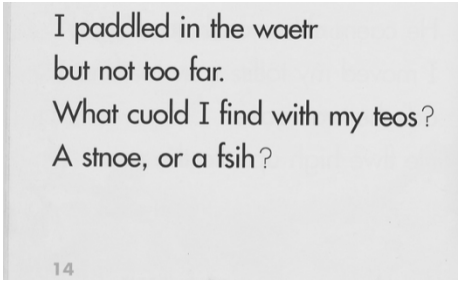
(Herbert Simon, quoted in Kahneman, pp. 11-12)

Monitoring by Initial or Final Letters



"What's wrong on this page?"

Monitoring Medial Letters



What's wrong with the writing on this page?

Learning to Look

There is *a very steep gradient of difficulty on items 12 to 14*. Children usually notice the changed word order (Item 12) before a change in first and last letters (Item 13) or a change in letters buried within the word (Item 14).

(Clay, 2000, p. 11)

Change Over Time

When learners monitor themselves and self-correct on parts of a new text this provides some evidence of when messages from the outside and messages from the inside are coming together. When we follow children's progress over time and record carefully the evidence is very powerful. We are able to record what we see them do and track some changes in their problem-solving as their reading improves.

Clay, LL2, p.100

Searching

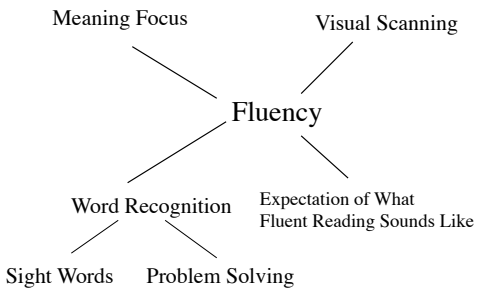
A set of strategic activities that a reader engages in to make word-recognition attempts. The information sources a reader uses to generate attempts gradually changes over emergent and beginning reading. Searching includes processing activity to generate initial attempts as well as to make additional attempts when monitoring processes suggest that the initial attempt may not be correct.

(Schwartz & Gallant, 2009)

Monitoring

A set of strategic activities that a reader engages in to evaluate word-recognition attempts. The information sources a reader uses to evaluate these attempts gradually changes over emergent and beginning reading. As word-recognition processing becomes more automatic, attention shifts to monitoring comprehension decisions.

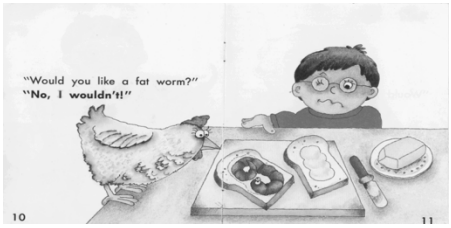
(Schwartz & Gallant, 2009)



Monitoring or Searching?

Observations of teacher interactions with students engaged in literacy learning in New Zealand both in classroom and in individual one-to-one specialist situations highlight a common teacher response to error. Teachers very frequently move to help children fix undetected errors before learners are aware that an error has been made.

(Pauline Smith, 2006, p.3)



R1: **Would you like a worm?**

R2: **Would you like a purple worm?**

R3: **Would you like a funny worm?**

Contingent Teaching

What might the teacher say? Partial attempts are where we can observe whether the teaching is being directed to the need which the child is demonstrating (contingent teaching).

Clay, 2001, COT, p. 202

Items & Strategic Activity

It is false to assume that a central processing system for literacy already exists in the brain when the child begins literacy learning. While learning the items we are teaching, the child is building a processing network that will deal with literacy tasks. He needs to learn the letters and the words, and their relationships to sounds, but he also has to build and expand the intricate interacting systems in the brain that must work together at great speed as he reads text.

Clay, 2005, LL2, p. 102

Processing

It is essential that the child come gradually to work at reading and writing activities in ways that enable him to learn from his attempts. This self-tutoring occurs at faster and faster rates under the control of healthy monitoring and self-correcting systems.

Clay, 2005, LL2, p. 86

Mechanism of Self-Extending

The successful reader who is making no errors is monitoring his reading at all times. Effective monitoring is a highly skilled process constructed over many years of reading. It begins early but must be continually adapted to encompass new challenges in texts.

Clay, LL2, p.108

Linking Sound Sequences to Letter Sequences: Massive Practice in Text Reading

Whenever a child reads a piece of text aloud he is coordinating sound sequences and letter sequences. Thousands and thousands of these opportunities are built up in classroom activities. Every correct reading or writing of a word is another successful coordination of sound sequence with letter sequence.

Clay, LL2, p.122

Word Recognition Goal

Children solve new challenges including multisyllabic words within more difficult texts at speed, working with clusters of letters. Smoothly operating reading systems produce evidence of how the system is becoming self-extending.

Clay, LL1, p. 51

What Can Early Intervention Accomplish?

Children who successfully complete early literacy interventions like Reading Recovery should operate in reading and writing in ways that put them on track for being silent readers with self-extending processing systems during the next two years at school. With good classroom instruction and moderate personal motivation that should be achievable.

Clay, LL1, p. 52

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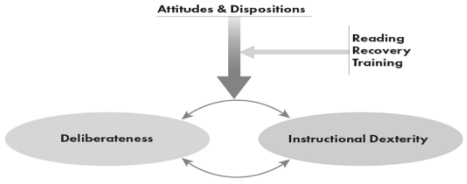


1. purposeful analysis of students' progress that is guided by close, carefully documented observation;
2. ongoing reflection on their own instruction; and
3. active engagement with their own continual learning, both individually and through participation in a community of practice.

1. supportive rapport that continually pushes the student toward maximal growth;
2. in-the-moment decision-making that draws on both prior understandings and real-time observations;
3. judicious use of language; and
4. a sense of urgency that is evident in the pace of the lesson and the efficiency of instructional moves.

Ongoing Reflection

- How item knowledge relates to strategic activity?
- How writing support phonemic awareness, phonics, and monitoring during reading?
- How familiar reading and monitoring correct responses can build the massive amount of orthographic knowledge that supports fluent reading?
- How monitoring and searching change over time and reflects changes in learning to look at print?
- How can we support children to build on their current strengths as they establish the foundation of a self-extending system?

High Progress Students

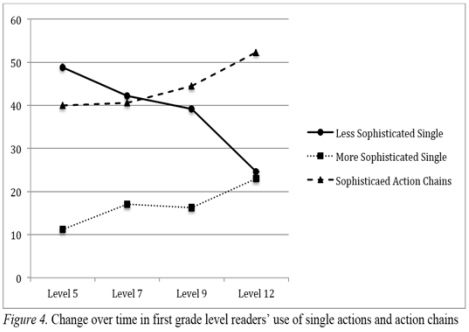
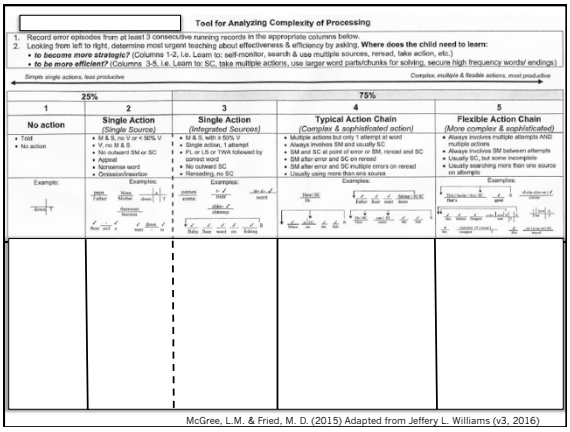


Figure 4. Change over time in first grade level readers' use of single actions and action chains

McGee et al., 2015



McGee, L.M. & Fried, M. D. (2015) Adapted from Jeffery L. Williams (v3, 2016)

With Your Help

Literacy activities can become self-managed, self-monitored, self-corrected and self-extending for most children, even those who initially find the transition into literacy hard and confusing.

Clay, 1991, BL, p. 345

Thank You!
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