



Tātai Angitu

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GETTING IT, NOT GUESSING IT: EXAMINING THE THREE-CUES MODEL

A personal story of professional change

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When we discuss problems with our literacy outcomes in New Zealand, behind the data is the story of each child who is having difficulty learning to read and write. These are the stories of children who may not want to go to school because they 'feel dumb' when they do not learn to read. In my years of teaching, I recall a group of children in my classes whose reading outcomes were always below the expected level. I worked hard so felt my efforts would make a difference. However, I could not accelerate their reading outcomes, no matter how hard we all worked. I feel uncomfortable to think these children in my class may have hated coming to school and 'felt dumb'. But my discomfort is nothing compared to the broken mana of the child and the heartbreak of the family who has to watch.

To improve outcomes for all learners, it is necessary to examine the models that inform our teaching of reading. One particular model that is in our teaching DNA is the 3-cues of reading. I remember learning about the 3-cues in 1986 when I trained in Reading Recovery. The idea of cue integration (using a combination of meaning, syntax, and print cues) to work out words was very appealing, and I believed it was the answer to all reading difficulties. I 'believed' in this model for the next 30 years and I understand how difficult it is to let it go.

The cognitive dissonance of confronting a long-held belief is not easy. Changing a belief will require a change in teaching, unlearning particular ways we have taught children to read. But for the sake of our learners, it is important to examine our beliefs and ensure the models we use are ones that provide us with efficient and effective pathways for teaching for all learners.

EXAMINING THE 3-CUEING SYSTEM

The key premise of the 3-cueing system (Fig. 1) is that successful reading involves using a combination of cue sources: sentence meaning, sentence structure, and the print on the page (or visual cues). The 3-cues model suggests that integration of all the cues is the ultimate aim for success as a reader.

The issue with cue integration is that it allows and directs learners to compensate for lack in one cue by relying on other cue sources. In particular, we often see learners compensating for a lack of print and word knowledge by relying on meaning and syntax cues. The system leads to a lack of confidence for struggling readers who know they are guessing it not getting it.

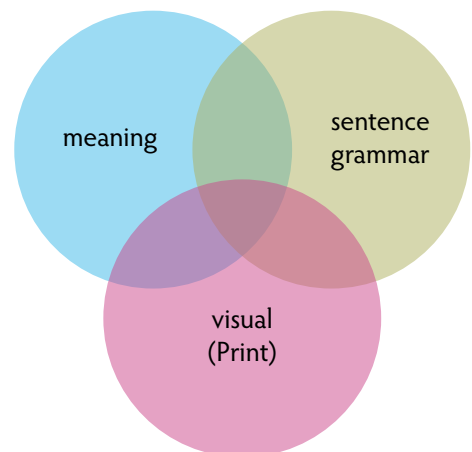


Figure 1: A diagram to show the 3-cueing system

Integrating the cue sources may appear to bring success with a particular word in that moment but integrating cues does not provide ongoing success. Ongoing success comes from the skill of efficiently and accurately processing the printed code. Word patterns map into long term storage when a reader pays close attention to the word, all through the word (Ehri, 2014). Storage of words is an absolute necessity for reading competency. When a learner spends time focused away from the print, using strategies such as looking to the picture or thinking about what would sound right, they miss the opportunity to take the word patterns into long term storage (Snow & Juel, 2005).

WHERE DOES THE 3-CUEING SYSTEM COME FROM AND WHY DOES IT PERSIST?

The 3-cues model emerged from a research study (Goodman, 1967) that found participants were able to read more accurately and fluently when the task involved reading in a context as opposed to when participants were given words in a list. Goodman concluded that it was the context cues such as meaning and syntax that enabled reading to be accurate and fluent. However, all attempts to replicate the results in Goodman's study have failed. Instead, researchers repeating his experiment found that good readers read words in and out of context equally well and it was poor readers who read better in context and who struggled with a list (Nicholson, 2004).

The 3-cues model has been the main model in New Zealand for at least three decades. One reason for the dominance of the model is that integration of cues seems viable on the surface. Once we have learned to read, it is hard to have any perspective on how difficult reading really is (Dehaene, 2010) or to identify the beginning point of successfully reading a sentence.

Another reason the model is retained is that using the meaning cue for decoding a word has been conflated with reading comprehension. In my research, I found that some teachers were hesitant to direct children to use the print cue first, because they felt it was downplaying the place of meaning. I know I kept an allegiance to 3-cues because of the notion that meaning had to drive the process. Of course, meaning is the main purpose of reading, but gaining meaning from what we read is not the same as using meaning as a cue to work out a word.

A further reason for the continued use of the 3-cues model is the types of texts available for instruction. Levelled texts based on predictable sentences or on the natural language of speech require teachers to direct children to use the picture cues (meaning) because the wide variety of spelling patterns is outside a learner's current decoding skill.

The 3-cues model has been part of teacher training and teacher manuals for decades. It is hard to unstitch the underpinnings of our own training. I resisted for many years the idea that guiding children to use compensatory strategies was teaching a form of guessing. In fact, I defended the process as being a strategic integration of cue sources. In addition, I did not know that compensation was a strategy of poor readers or that there were alternative models.

AN ALTERNATIVE MODEL FOR TEACHING READING

A connectionist model (Seidenberg & McClelland, 1989) gives an alternative to the 3-cues model, describing the **interaction** of four different processors (orthographic, phonologic, meaning, and context) in the act of reading. This model of four processors (Fig. 2) positions the first act of reading as the connection between the print (orthography) and the sounds (phonology). Making the connection between the letters or graphemes and how they represent the sounds or phonemes in words is a vital first step to reading success. Once the word is read (by connecting the graphemes to their phonemes), the meaning and context are activated to complete the process¹.

¹ Recent advances in functional MRI confirm that activation occurs in these areas of the brain as we read. The images also show that for poor readers there is less activation in the phonological processing area. Accurate decoding of words is very limited if there is no connection between orthography and phonology.

FOUR-PART PROCESSING MODEL OF WORD RECOGNITION

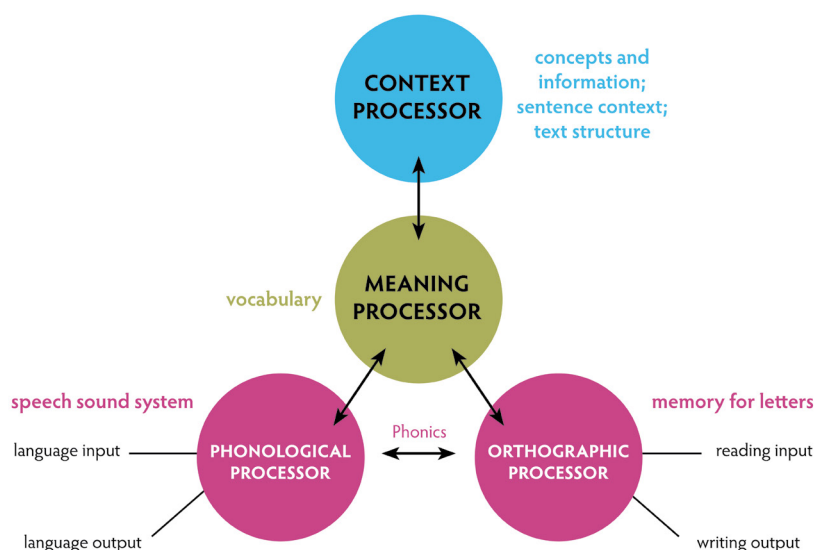


Figure 2: Seidenberg & McClelland (1989) sourced from

A key difference in the connectionist model is the **interaction** among the processors, rather than the integration of cues as in the 3 cues model. Interaction requires capability in all parts of the reading process, whereas integration can mean one cue dominates and is used to compensate for weakness in another cue. Integrating cue sources is not a model of capability or of balance in literacy learning.

The four processors model shows the importance of teaching the skills for the printed code as a foundation for reading. There has been no case of competent reading in the absence of functional decoding (Share, 1995). For overall reading success, while decoding is not sufficient, it is absolutely necessary. Learning to decode is the first step; meaning cannot be brought to the sentence unless words can be read reliably and efficiently (Pressley, 2006). And in the words of Stanislas Dehaene (2010), there is no point in describing to children the delights of reading if they are not provided with the means to get there. By ensuring children have capability with the printed code, we give them a vital key to access the delights of reading for themselves.

Many teachers across Aotearoa have begun evaluating the reading models they use. A change in models means a change in teaching. The teaching involves careful lesson to text matching, including decodable texts and a careful scope and sequence for beginning instruction. It is heartening to hear these teachers tell the stories of children who previously hated reading lessons now eagerly waiting for it to be their turn. Often these children are still finding learning to read difficult, but they ARE learning to read. By changing the model of reading they use, teachers have empowered their learners with the skills to know they are "getting it, not guessing it".

I cannot go back in time and change the outcomes for the learners I tried so hard to help. I hope the efforts I made, or the efforts of another teacher, enabled them to gain success as readers. We cannot go back, but we can move forward and ensure that teachers have the knowledge, resources, and support to provide the pathway of success for all learners.

REFERENCES

- Dehaene, S. (2010). Reading in the brain: the new science of how we learn to read. Penguin Books.
- Ehri, L. C. (2014). Orthographic mapping in the acquisition of sight word reading, spelling memory, and vocabulary learning. *Scientific Studies of Reading*, 18(1), 5-21. doi:10.1080/10888438.2013.819356
- Goodman, K. S. (1967). Reading: A psycholinguistic guessing game. *Journal of the Reading Specialist*, 6 (4), 126-135. <https://doi.org/10.1080/19388076709556976>
- Nicholson, T. (2004). Do children read words better in context or in lists? A classic study revisited. In D. Wray (Ed). *Literacy: Major themes in education. Reading processes and teaching (Vol 2 pp 29-44)*. Routledge.
- Pressley, M. (2006). *Reading instruction that works: the case for balanced teaching*. 3rd edition. Guilford Press.
- Seidenberg, M. S., & McClelland, J. L. (1989). A distributed, developmental model of word recognition and naming. *Psychological Review*, 96(4), 523-568.
- Share, D.L. (1995). Phonological recoding and self-teaching: sine que non of reading acquisition. *Cognition: International Journal of Cognitive Science*; 1995 May; 55(2): 151-218
- Snow, C. E., & Juel, C. (2005). Teaching children to read: What do we know about how to do it? In M. J. Snowling & C. Hulmes (Eds.), *The science of reading: A handbook* (pp. 501-520). Malden, MA: Blackwell Publishing.
- Stanovich, K.E. (1986). Matthew Effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21, 360-407.

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