

So you think it's simple,
think again!

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Complex Theory

Even though a simpler theory may suffice for most children, I am certain that a view of complexity is the kind of understanding required to deliver results in an early intervention programme aiming to prevent subsequent literacy difficulties in as many children as possible.

COT, p. 138



Complexity

Clay understood that literacy "processes are complex and will not be easy to observe and explain. Literacy educators, 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."

(LL1, p.2)

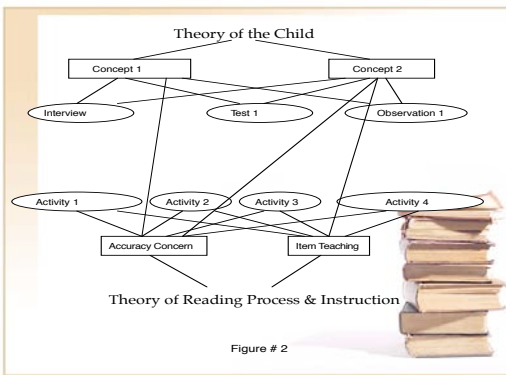


Complexity Caution

If literacy teaching brings a simple theory to a set of complex activities, then the learner has to bridge the gaps created by the theoretical simplification. The lowest achievers will have extreme difficulty bridging any gaps in the teaching programme and linking together things that have been taught separately.

(COT, 2001)





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Ill-Structured Knowledge Domains

1. Case and concept complexity.
2. Across-case irregularity.



Is Beginning Reading an Ill-Structured Domain?

Across-case irregularity:

A major premise of Reading Recovery instruction is that "low achievers, collectively, are a group encountering different sources of difficulty."

(COT, p. 220)



Case and concept complexity:

In a complex model of interacting competencies in reading and writing the reader can potentially draw from all his or her language competencies, and visual information, and knowledge of print conventions, in ways which extend both searching and linking processes as well as the item knowledge repertoires.

(COT, p. 224)



Learning Deficiency in Ill-Structured Domains

1. Conceptual misunderstanding is prevalent.
2. Oversimplification
3. Compound oversimplification can lead to networks of misconceptions that are durable.
4. Oversimplification can apply to strategies, mental representations & instructional approaches

Spiro et al., 2003

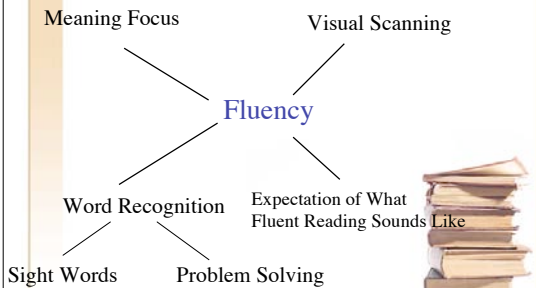


How Might a Struggling Reader Oversimplify?

In whatever way we conceptualize the child's "processing system (as cell assemblies, or networks, or strategies, or working systems), they *must be infinitely flexible and temporarily tentative* during the acquisition of literacy.

(COT, p. 103)





Constructive Processing

Central Claim-- revisiting the same material, at different times, in rearranged contexts, for different purposes, and from different conceptual perspectives is essential for attaining the goal of advanced knowledge acquisition.



Video Context for Teacher Ed.

Principles and Practice

Teachers Role

The lowest achievers “require a watchful teacher who shares the complex task and knows when to withdraw his or her help, bit by bit as the low achievers construct necessary literacy processes. The teacher creates the supportive structure within which the low achievers can be appropriately constructive.”

(COT p. 105)

III structured domains

Transfer depends on having a rich store of experiences that capture the variety of ways events in a domain happen and the way the concepts of a domain combine. Rather than acquiring knowledge from examples, the knowledge is *in the examples*.



Spiro et al., 2006

III-Structured Domains

Understanding a clinical case of cardiovascular pathology will require appreciating a complex interaction among several central concepts of basic bio-medical science: and that case is likely to involve differences in clinical features and conceptual involvements from other cases assigned the same name (e.g., other cases of 'congestive heart failure').



(Spiro, 2006, p. 4)

III structured domains

So we don't just show one video as an exemplar case, we always show a *lot* of video cases. And we don't just show each case once, we show it more than once, in different contexts so as to bring out alternative facets of its complexity. *A revisiting is not a repeating.*



Spiro et al., 2006

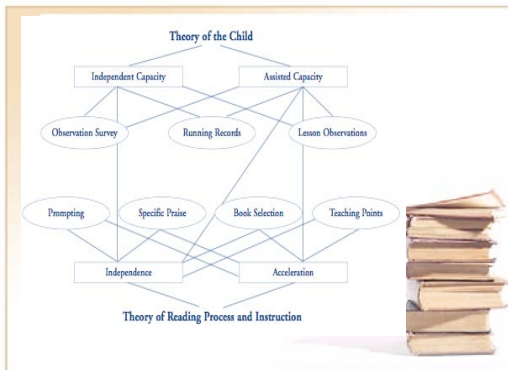
Goals for this session

- To have deeper conversations about our complex theory
- To view video tapes with different lenses and multiple perspectives



Expert - Novice Differences

1. Experts notice features and meaningful patterns of information that are not noticed by novices.
2. Experts have acquired a great deal of content knowledge that is organized in ways that reflect a deep understanding of their subject matter.
3. Experts' knowledge cannot be reduced to sets of isolated facts, but instead reflects contexts of applicability.
4. Experts are able to flexibly retrieve important aspects of their knowledge with little attentional effort.
5. Experts have varying levels of flexibility in their approach to new situations.



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Independence

The teacher can not teach independence. She sets up fail safe situations within which the child can initiate successful activity!

(LL1, p. 60)



Independence

Independence is not taught. It is an outcome of an activity when a child controls that bit of processing and the teacher know she can hold off that emphasis and move to another.

(LL1, p. 60)



Acceleration

The teacher will foster and support acceleration as she moves the child quickly through the series of lessons, making superb decisions and wasting no unnecessary time, but the teacher cannot produce or induce acceleration.

(LL1, p. 23)



Acceleration

Acceleration depends upon how well the teacher selects the clearest, easiest, most memorable examples with which to establish a new response, skill, principle or procedure.

(LL1, p. 23)



New Book

Reading the new book(the last task in the lesson) provides different opportunities.

It allows daily practice in attempting to read new material.



New Book

- The child will learn to use any strategic activity he can to read novel texts.
- The teacher chooses text carefully to suit this child at this time, helps the child to recognize what he already knows and introduces new features of printed English to him



How Might We Oversimplify Our Theory of Instruction?

If literacy teaching brings a simple theory to a set of complex activities, then the learner has to bridge the gaps created by the theoretical simplification.



What did you think?

- How did the multiple viewing & discussion support or distract from your learning?
- Is the concept of oversimplification helpful in thinking about your learning as a RR teacher?
- What new goals have you set for yourself based on today's session?