## This Week's Citation Classic<sup>®</sup>

Palincsar A S & Brown A L. Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition Instruct.* 1:117-75. 1984. [Center for the Study of Reading, University of Illinois, Champaign-Urbana. IL]

Results of two instructional studies investigating an intervention designed to improve the reading comprehension of students with serious reading difficulties are reported. The intervention features the use of a dialogue structured by four cognitive strategies: questioning, summarizing, predicting, and clarifying. The teacher models the use of these strategies to make sense of text and guides the students in their use of the strategies. Evidence of the effectiveness of the intervention is reported in terms of comprehension assessments, sample dialogues, and measures of maintenance and transfer. [The  $SSCI^{\odot}$  and the  $SCI^{\odot}$  indicate that this paper has been cited in more than 315 publications, making it the most-cited paper published in this journal.]

## A Retrospective View of Reciprocal Teaching

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Central to the research reported in this article were the very real problems experienced by children like Ben—a seventh grader with whom I had worked as a first year teacher. Ben had a long history in remedial programs. He was able to sound out words fluently but his understanding of what he read was abysmal. Nothing in my teacher preparation had prepared me to work with this kind of student. When I went to the University of Illinois for doctoral study, I took Ben and children like him with me—so to speak.

The early 1980s was a particularly rich time in which to conduct reading research. The "cognitive revolution" was well underway and theories of text comprehension,<sup>1</sup> as well as empirical studies of individual differences among successful and less successful readers,<sup>2</sup> revealed that comprehension is the construction of meaning by the reader, who links prior knowledge to the information in the text by activating background knowledge, focusing attention on relevant information in the text, drawing inferences while reading, and monitoring for understanding. Despite the richness of this theory, there were as yet few instructional procedures that were informed by this approach.

Reciprocal teaching was among the first of such interventions. Reciprocal teaching was

designed to teach students in difficulty to engage in the kinds of activities which skillful readers seem to spontaneously engage in. The strategies (questioning, summarizing, predicting, and clarifying) were designed to engage students in productive cognitive activity. However, it wasn't enough to simply identify strategies, it was also necessary to identify the procedures by which students could fruitfully learn these strategies. The idea of teaching these strategies by having students and teachers engage in discussions was influenced by a theory of learning proposed by the Russian psychologist L.S. Vygotsky,<sup>3</sup> who emphasized the social origins of individual cognitive activity.

Of course, it isn't enough for a young graduate student simply to have good theories. The research could not have been conducted without the intellectual, moral, and financial support of my coauthor, Ann Brown, who was a senior scientist at the Center for the Study of Reading.

Our article reported on the first of many intervention studies that we conducted with reciprocal teaching. We proceeded cautiously, first investigating the use of the procedure in laboratory-like conditions with me doing the teaching. We tried to assess the effectiveness of the intervention in many ways, using both formal as well as less formal measures, and also using analyses of the dialogues themselves. When it proved to be a robust intervention, we recruited volunteer teachers to assist us in its investigation. We asked the cooperation of a whole school district (Springfield, Illinois) to implement and evaluate the instruction. Finally, we investigated the use of reciprocal teaching as a listening-comprehension procedure to be used in a preventative way with first grade students, who could learn to be good comprehenders of text even before they were able to independently read text.

This intervention is now described in virtually all major educational psychology and reading texts, and I have received personal letters from over 1,000 teachers requesting information regarding this procedure. Sitting in the boiler room of the school in which I conducted my dissertation study, my tape recorder whining away, I never could have predicted the impact of these studies. They occurred at a time when educational researchers were eager to examine the power of cognitive theories to inform practice, and teachers were searching for new ways to enhance the thinking skills of their students.

Kintsch W & van Dijk T A. Towards a model of text comprehension and production. *Psychol. Rev.* 85:363-94. 1978. (Cited 805 times.) [See also: Kintsch W. The long and crooked way towards a model of text comprehension. Citation Classic®. *Current Contents®*/Arts & Humanities 15(18): 18, 30 August 1993. and *Current Contents/Social & Behavioral Sciences* 25(341:8. 23 August 1993.)

Brown A L. Metacognitive development and reading. (Spiro R J. Bruce B C & Brewer W. eds.) Theoretical issues in reading comprehension. Hillsdale. NJ: Erlbaum. 1980. p. 453-81. (Cited 80 limes.)

Vygotsky L S. *Mind in society: the development of higher psychological processes.* (Cole M. John-Steiner V, Scribner S & Souberman E. eds.) Cambridge. MA: Harvard University Press. 1978. 159 p. (Cited 990 times.) Received February 12. 1993