CAUSAL METACOGNITIVE-MOTIVATIONAL MODELS OF READING COMPREHENSION IN READING DISABLED AND NORMAL ACHIEVING READERS

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ABSTRACT

Contemporary models of reading indicate that reading achievement and impairment are the products of the complex interaction of motivational, cognitive and metacognitive processes. Most previous research has relied on correlational studies to examine the links amongst these variables. Given the complex relationships of these variables, research designs which examine these constructs simultaneously and which establish causal relationships are needed. The dearth of interactive research with different populations is surprising considering that reliable and theoretically meaningful models that are generally invariant across subpopulations would contribute much towards theoretical parsimony and progress of educational research.

In light of the above considerations, the present study was designed with the primary goal of replicating and extending a previous test of a structural model of reading achievement. The main goal was to explain and predict both reading achievement and impairment from the complex and multicomponential perspective of a model of metacognition. Specifically, this involved an examination of the causal influences of young adolescent students' attributional style, and self-efficacy on metacognitive knowledge and their use of cognitive and metacognitive strategies. In addition, these same variables were examined to see how they related to their reading comprehension performance and how the relationships differed in normal achieving (NA) and reading disabled children (RD). A secondary goal of this study was the investigation of variables that would distinguish between RD and NA readers.

There were three phases involved in the present study. Phase 1 concerned sample selection and involved administration of a short-form of the Wechsler Intelligence Scale for Children - Revised. Selection of RD children was based on a six-stage multidefinitional approach. A sample of NA readers with reading achievement consistent with their age was also identified. A total of 203 NA readers and 204 RD readers were selected to participate in this study.

The data were collected in Phases 2 and 3. Phase 2 involved administration of two self-report questionnaires which examined children's attributional style, use of strategies, metacognitive knowledge, and self-efficacy for reading. Phase 3 involved individually administered reading interviews. All questionnaires and reading interviews were administered within a two week period.

The relationships among general intellectual ability, attributions, self-efficacy, metacognitive knowledge, metacognitive/cognitive strategy use, and reading comprehension in NA and RD children were evaluated using four models. The results were analyzed using structural equation modelling procedures. The proposed models provided a statistically adequate fit for the obtained data, accounting for about 60% of the variance in student performance. Several structural relationships were similar across groups suggesting that the metacognitive-motivational systems of NA and RD children were rather similar. For instance, the relationships between attributional style (as a single latent construct), efficacy, metacognitive knowledge, cognitive strategy use and metacognitive strategy use were similar across groups.

Nearly all of the structural correlations and the direct and indirect coefficients were in the theoretically expected direction. In both groups, students' adaptive attributional beliefs significantly predicted self-efficacy and metacognitive knowledge. However, when the separate effects of attributional style were examined for each outcome, the results revealed that adaptive attributional style for failure was the only significant predictor of metacognitive knowledge. Furthermore, the attributional components varied in their impact on self-efficacy and these differential effects also varied across groups.

An important contribution of this study was the incorporation of "strategy use" in the model. When combined strategy use (both metacognitive and cognitive) was included in the model, metacognitive knowledge no longer had a direct impact on reading performance (comprehension), instead combined strategy use played a significant role in mediating this relationship. Self-efficacy as well as metacognitive knowledge predicted combined strategy use which in turn predicted reading comprehension. Closer examination of the components of combined strategy use revealed that only "metacognitive strategy use" directly predicted reading comprehension across groups. The mediating role played by cognitive strategy use in the relationship between metacognitive knowledge and comprehension performance differed across groups. Self-efficacy directly and positively predicted metacognitive knowledge and metacognitive/cognitive strategy use.

The results suggested that attributional style plays a pivotal role in the metacognitive development of both NA and RD children. A number of causal paths distinguished good from poor readers. They were the paths between ability and success/failure attributions, ability and performance, success/failure attributions and efficacy, cognitive strategy use and performance, and efficacy and performance. On the whole, motivational variables were more important in determining comprehension for RD children whilst metacognitive and cognitive strategy use variables were more important for achieving readers. The failure to develop an enriched metacognitive system in RD children was ascribed partially to the effects of their self-defeating attributions.

Attributional beliefs, self-efficacy, metacognitive knowledge, and cognitive strategy use uniquely discriminated between NA and RD children. These findings suggest that metacognitive and motivational variables combine effectively to distinguish between RD and NA readers. The results also provide support for the utility of adopting a multidefinitional approach in defining RD children.

The findings from this study advance the argument that reading achievement and impairment should be studied using a multicomponential framework. The implications of this study's research findings for classroom practice and research methodology are reviewed. Limitations of the present study were also discussed.

DEDICATION

This dissertation is dedicated to the memory of

my Mother, *Thelma A. Pereira*
my Father, *Anthony P. Pereira*
and my Big Papa, *Elias P. Pereira*

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