

School Psychology Research Collaboration Conference Application

Does Dysfluency Matter: The Effects of Reading Fluency on
Academic and Social/Emotional Functioning

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Personal Research Agenda

My research interests include the normal development of reading skills with a focus on reading fluency and the assessment of children with reading disabilities. Previous efforts, specific questions, and implications for the practice of school psychology for each area of interest are described below.

I have explored the typical development of reading fluency in early and late elementary-age school children through several different research projects (Schwanenflugel, Meisinger, et al., 2007; Meisinger et al., 2008). Across those studies we found that the construct of reading fluency varied in complexity across developmental periods. For young readers it seems that a single definition of reading fluency, which includes word accuracy, word fluency, and text reading fluency, is most appropriate for explaining reading comprehension. In contrast, results for older students support a multifaceted fluency model, in which word reading accuracy, word fluency, and text fluency each make independent contributions to comprehension. I would like to build on this line of research by examining the relationship between oral and silent reading fluency in elementary school children, as well as the relationship between oral reading errors (also known as miscues) and reading comprehension.

Second, I am interested in the assessment of children with reading disabilities. My previous work suggests that some children exhibit specific deficits in reading fluency without commensurate difficulties in reading comprehension (Meisinger et al., 2008). However, it has not been established that deficits in reading fluency alone result in impairment of children's academic functioning. Therefore, I intend to explore whether dysfluent reading coupled with age-appropriate reading comprehension impacts children's academic engagement, academic task persistence, and tolerance for frustration. This research should provide information to school

psychologists and IEP teams who make educational recommendations for children with Specific Learning Disability (SLD) in reading fluency. Given the new status of reading fluency as an SLD, this research is especially relevant to school practices.

I am also interested in identifying appropriate practices for assessing silent reading fluency. Oral reading fluency probes are frequently utilized as part of the response to intervention (RTI) model for identifying children with Specific Learning Disabilities. Once children are fluent, they generally transition effectively to silent reading; however, the grade at which children shift from oral to silent reading is yet to be identified. The degree to which this transition is moderated by ability and text difficulty level also needs to be explored. This line of research will provide guidance regarding when school psychologists should consider transitioning to, or supplementing oral reading probes with, silent reading probes. Although several methods are commonly used to assess children's silent reading fluency (e.g. eye tracking, self-paced methodologies, paper and pencil inventories) limitations exist with each. Therefore, a new method for assessing silent reading fluency which involves children underlining passages with a stylus as they read from a Tablet PC is currently under investigation (Price, Meisinger, & Demello, in preparation). Once validated, this method may be used to quickly and effectively assess children's silent reading fluency skills within a school setting.

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Abstract

The literature suggests that some children exhibit deficits in reading fluency without concurrent difficulties in reading comprehension (Lovette, 1984, 1987; Meisinger, Sanchez, & Hynd, 2008; Morris et al., 1998). At present, it has not been established that reading dysfluency alone results in impairment in children's functioning. The purpose of the present study is to explore whether dysfluent reading, with age-appropriate reading comprehension, impacts children's academic, and to a lesser extent social/emotional, functioning. Participants will include 300 fourth-, fifth- and sixth-grade students, their parents, and their teachers. Children's skills in word reading, reading fluency, and reading comprehension will be assessed with standardized achievement measures. Parent-, teacher-, and self-report data will be collected on student's test-taking skills, academic assignment completion, tolerance for academic frustration, and reading avoidance and motivation. Demographic data, state-wide standardized achievement test scores, and student grades will be collected via school records. Results will be discussed in relation to the validity of the Specific Learning Disability (SLD) in reading fluency category. Further, results will provide guidance to school psychologists and IEP teams who make educational recommendations for children with an SLD in reading fluency.

Reading fluency is most often defined as the ability to read text quickly, accurately, and with appropriate expression (National Reading Panel, 2000). The development of fluent reading skills is widely recognized as a primary educational goal for elementary school-aged children. The most recent reauthorization of the Individuals with Disabilities Education Act (IDEA, 2004) further acknowledged the significance of reading fluency when it was named as a Specific Learning Disability (SLD) subtype. Although reading fluency has been tied to many positive outcomes for children, such as academic achievement and improved reading comprehension (Kuhn & Stahl, 2004), less is known about the negative effects of being a dysfluent reader.

A limited literature supports the existence of a reading fluency disability subtype, which is characterized by age-appropriate single word reading skills but excessively slow and inaccurate reading of connected text (Lovette, 1984, 1987; Meisinger, Bloom, & Hynd, 2008; Morris et al., 1998). Of particular interest is that dysfluent readers in these studies did not exhibit commensurate difficulties with reading comprehension. At first glance this finding seems counterintuitive; yet, this disconnect is congruent with the divergence of reading fluency and comprehension observed in typical readers as they reach the late elementary and middle school years (Floyd, Gregg, Keith, & Meisinger, 2008; Vellutino, Tunmer, Jaccard, & Chen, 2007). If it is indeed the case that children with a Specific Learning Disability in reading fluency do not struggle with understanding what is read then the validity of this subtype may be called into question. At present, it has not been established that dysfluency alone results in impairments in children's academic functioning.

Reading comprehension aside, being a dysfluent reader may negatively impact children's academic and social/emotional functioning. For example, being a slow reader could make it difficult to keep up with the pace of materials presented in class and may interfere with the

learning of content area knowledge. Being a slow reader may have implications for children's performance on high-stakes standardized tests (e.g., Scholastic Aptitude Test), which require students to read and answer many questions within a limited period of time. Further, if it takes a child longer to read their homework assignments, slow and laborious reading may result in feelings of frustration (Raskinski, 2001), which could contribute to low general motivation to read or even feelings of low self worth. Additionally, dysfluent readers may avoid reading (Leinonen et al., 2001; Pinnell et al., 1995), which could lead to incomplete class work and homework assignments and poorer grades. Lastly, avoidance of reading and frustration over completing homework assignments may even lead to increased parent-child conflicts over school work. In sum, given the paucity of research in this area, the impact of specific deficits in text fluency on academic and social/emotional functioning is unknown.

The purpose of the proposed project is to examine whether being a dysfluent but adequately comprehending reader is associated with impairments in children's academic and social/emotional functioning. It is hypothesized that in comparison to their fluent reading peers, dysfluent readers will spend a greater amount of time on homework assignments, take longer to complete tests, experience increased frustration during academic tasks requiring reading, experience increased parental conflict over schoolwork, avoid reading, and achieve less academically.

Participants will consist of 300 fourth-, fifth-, and sixth-grade children in general education classes (approximately 100 per grade), their parents, and their teachers. Two elementary schools located in the southeastern and southwestern region of the United States will participate in the study. A variety of standardized and curriculum-based reading achievement tests will be administered to each student participant to assess children's word reading, oral and

silent reading fluency, and reading comprehension. Anecdotal data such as state-wide achievement test scores, demographic information, and student grades will be collected from school records. Teachers, parents, and children will complete a series of questionnaires examining student's facility in the completion of academic assignments, test taking skills, tolerance of frustration for academic tasks involving reading, reading avoidance, conflict over schoolwork, and motivation.

Advantages and Difficulties

There are a number of advantages of a multi-site project. Individuals bring different ideas and perspectives to the table, often leading to rigorous debates and ultimately deeper understanding of the research questions, study design, and interpretation of the results. Further, multi-site projects provide opportunity for collecting data in different regions, across settings (e.g. urban, suburban, rural), and with different populations (e.g. SES, race/ethnicity, ESL), resulting in a larger, more representative sample. However, collaborators separated by physical distance also face some challenges. Planning and communication are key. Regular conference calls and emails are typically necessary to facilitate communication and consistency across sites. Also, standardized training, data collection, and data entry procedures need to be established in advance by the team.

Budget

Given that indirect costs for most universities total approximately 40% of total cost, it is likely that a modestly ambitious project would require approximately \$50,000. The budget would likely include allotments for academic release time and summer pay, for graduate assistantships, and for travel, supplies, and equipment (e.g., computers and software).

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