

**Application for the
School Psychology Research Collaboration Conference**

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Personal Research Agenda and Interests

As a new faculty member in the school psychology program at the University of Northern Colorado, I find my previous 14 years of work as a psychologist within the public schools to be invaluable and inspiring. While working in the schools I was continually challenged by a system of services that reacted to student needs and difficulties. However, the focus of special education services delivery is currently adapting to the underlying theory and practices of Response to Intervention (RTI). With the exception of reading assessment and intervention there remains a lack of research in primary prevention and a paucity of reliable and valid methods for formative and Functional Assessment of Academics (FAA). Over the next 3 to 5 years I intend to enhance the knowledge base related to the development, assessment and effective teaching practices specifically in the area of early written language.

Previous Efforts

As detailed in my vitae, I have studied and focused on the primary prevention of academics since the beginning of my career as a school psychologist. As a graduate student at the University of Oregon, I had the opportunity to participate on the DIBELS research team in the development of measures to formatively evaluate early reading skills. My dissertation entailed the preliminary development of one DIBELS measure (Nonsense Word Fluency) and the development of effective and efficient intervention for children experiencing difficulties learning to read. A focus of my professional work in the schools was systems change to include both formative and functional assessment of academics as well as a preventive nature of service delivery. I have experience training teachers and coaches at a state and national level and have recently developed a course for graduate students of school psychology on topics specifically

related to formative and functional assessment of academics. I recently authored an article on Functional Assessment of Academics (FAA) and have a comprehensive review of the literature on written language development, assessment and intervention in preparation.

Research Goals and related Questions

- 1) identify a working model of early written language development
- 2) define the essential preskills of written language that are most predictive of later success in written language
- 3) develop methods to objectively and formatively measure those essential preskills
- 4) develop evidence based intervention that address those factors directly related to the primary prevention and remediation of written language problems.

Implications for School Psychology

The stated goals and objectives of increasing the knowledge base of early written language and the development of evidence based tools for assessment and intervention are consistent with the current philosophy of school psychology service delivery as well as federal legislation of No Child Left behind. By assisting school psychology practitioners in the functional and formative assessment academics and the delivery of effective and efficient interventions, we increase the likelihood that all children will be successful with written language.

Proposal Abstract

This project proposes to further the knowledge base in the development of early written language and to address the need for reliable, valid, sensitive and practical methods of assessing and intervening with early writing skills. A series of pilot measures for early writing skills will be correlated with beginning and end of year test scores for written language for kindergarten through third grade students. Longitudinal data will be collected to test the predictive validity of the measures as well as the sensitivity to growth in written language skills over time. Those preskills found to be most related to written language will be targeted as skills for intervention.

Vision of a collaborative multi-site research program

One of the most difficult aspects of educational research is bridging the gap between research and applied practice. To meet the criteria for social validity, research must take into account the nature and context of a school system as well as the current challenges faced by educators. The proposed studies will take place within the schools and include participation from teachers and administrators. Teacher input will be invaluable in developing and refining the initial measures of early written language while administrator input will enhance the researcher's capacity to understand what types of data are necessary and useful for educational decision making in the schools. In addition to collaboration with school districts it will be imperative to collaborate with researchers at multi-sites. The multi-site approach offers researchers from various perspectives and disciplines (for example speech language pathologists or special education teachers) to come together and develop a comprehensive strategy to address the real and pressing concerns schools face. Furthermore, the use of multi-sites will enhance the ability for studies to be conducted with larger numbers of subjects and more diverse groups of children.

In the first phase of the research agenda, researchers will develop and pilot initial measures of early written language ability. The development will be based on current research in the written language including Curriculum Based Measurement (CBM) and Curriculum Based Evaluation (CBE). The pilot measures will be correlated with pre and post test scores for existing measures of written language. This phase of the study will collect longitudinal data by following subjects through grades kindergarten through third grade in both rural and urban school settings. Factors such as each child's expressive language, receptive language and early literacy skills will be taken into account and the data may be disaggregated to examine the correlation of the measures with different populations of children. It is anticipated that

researchers will refine those measures that are found most predictive of success with written language and collect additional data on the reliability, sensitivity, and validity of those measures.

A second phase of the study, which may be conducted concurrently with the previous phases will address the need for evidence based interventions in early written language. With data from the pilot study on early written language measures, researchers will identify the skills predictive of later success with written language and develop a collection of best practices strategies for directly teaching those skills. Those strategies may then be tested by comparing outcomes data for children who have received intervention and a control group. Data utilized in the analyses may include the pre and post test written language data collected in phase I of the research agenda as well as formative data collected utilizing the developed early written language measures. Measures of expressive and receptive language and early literacy will be utilized as covariates in this analysis.

Specific Issues and Questions

- 1) What preskills are most predictive of later success with written language?
- 2) What is the reliability, validity and sensitivity of the measures developed to assess early written language skills?
- 3) Do children who receive intervention in the identified essential preskills for written language demonstrate improved outcomes in written language?

Context and Participants

Students in kindergarten through third grade have been selected as the focus of this particular research agenda. The objective is to identify a means by which to identify children at-risk for difficulties with written language and develop effective interventions for addressing

preskills in written language. It will be essential to collect longitudinal data on children as they develop written language. However, by including student from kindergarten through third grade it will be possible to analyze data in the earlier years of the study (for third graders) as well as analyze the longitudinal data regarding the sensitivity and predictive validity of the measures for students in the earlier grades. Schools and districts invested in the RTI process will be recruited for participation in the study. It is estimated that 2 to 3 sites with 30 students per grade will be needed for Phase I of the research agenda. At least 2 sites will be needed to address intervention implementation at Phase II of the research agenda.

Budget Estimate

Budget items for the project will include stipends for graduate students who will assist with data collection and analysis, materials, copying, travel to schools and incentives for participating teachers and schools. It is estimated that the first phase of the research agenda (duration 4 years) will cost approximately \$80,000 (\$20,000 per year). Phase II is estimated to cost an additional \$10,000 per year.

Relative advantages and challenges of a collaborative multi-site research program

The clear advantages to utilizing a multi-site collaborative agenda in carrying out research of this type and scope include increased faculty for organization and implementation, access to a greater number of school districts and graduate assistants. The challenges include consistent communication, ongoing collaboration with school district participants, maintaining reliability and fidelity and securing funding for such an extensive project.