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My research is focused on improving students' academic achievement through the use of systematic data-based decision making and by increasing students' academic motivation. I am interested in examining how schools can effectively use data to improve the achievement of low performing students. In addition, I am interested in continuing to research struggling students' academic motivation and explore ways that motivation can be used to enhance academic interventions. While I have primarily researched motivation and data-based decision making separately, I would like to merge these research interests to examine how interventions focused on improving both academic skills and motivation impact the long-term achievement trajectories of students who struggle academically.

The majority of my research has focused on issues related to students' academic motivation and achievement, specifically as they pertain to reading. Over the past three years I have worked with a multi-institution research group conducting ongoing studies examining issues related to the academic motivation and literacy development of urban youth. This work has led to a number of conference presentations, publications, and grant proposals focused on teachers' beliefs about student motivation, motivational profiles of students in urban schools, and the relationship between motivation and reading achievement. Additionally, I have become increasingly interested in examining how schools can use student data to make decisions regarding academic interventions and special education identification. I am currently working with a senior colleague to examine how schools collect, store, and use student achievement data within a response to intervention (RTI) framework. This work has raised my awareness regarding the many challenges schools face when attempting to develop and implement an RTI framework that meets the needs of their administrators, school psychologist, teachers, and students.

Over the next three to five years I plan to continue my research examining issues related to the academic motivation and achievement of students in urban schools. Currently, I am developing a grant proposal for a three year project examining how classroom factors, student motivation, and student engagement relate to various student social and academic outcomes. In addition, I plan to continue my work examining how schools can effectively use data to identify students in need of additional academic support and track students' academic progress.

My goal is to fund research to examine the following questions: (1) What are the relationships between classroom factors, student motivation, student engagement, and various social and academic outcomes? (2) Are there discernable motivational profiles for students who struggle academically? (3) What types of academic and motivational interventions are most effective at meeting the needs of students who are struggling academically? (4) What is the value added when integrating motivational data to a data-based (RTI) decision framework?

In the current educational climate, there is an increasing need for schools to become more efficient and purposeful when collecting and using data to identify students in need of additional academic support. Many of the students who are identified as struggling learners are also characterized as disengaged and unmotivated. Research has suggested that there is a bi-directional relationship between motivation and achievement (see Morgan & Fuchs, 2007). It is possible that interventions addressing students' motivation as well as skill development may be more robust than traditional approaches to intervention that focus solely on developing academic skills. Given that RTI frameworks are increasingly being implemented by schools to identify students for academic interventions, they seem a logical place within which to integrate research examining the effect that motivation has on achievement in both the short and long-term.

References

Morgan, P. L., & Fuchs, D. (2007). Is there a bi-directional relationship between children's reading skills and reading motivation? *Exceptional Children*, 73, 165-183.

Research Proposal

Abstract

Matthew Quirk

Since the passage of IDEIA (2004), an increasing number of schools are utilizing response to intervention (RTI) as a method of assessing and identifying students in need of additional academic support. In reading, the assessments used in existing RTI models typically focus on reading fluency, among other fundamental reading skills. An increasing amount of research suggests that reading motivation may make important contributions to the development of fundamental reading skills. However, existing RTI models do not assess or consider motivational data when identifying struggling readers and when considering potential approaches to reading intervention. I am proposing research to examine how motivational considerations might be meaningfully and purposefully incorporated within an RTI framework. Questions that will be addressed through the proposed research include: Do students who respond to reading intervention differ in motivation from those students who do not respond to intervention? Does integrating motivational intervention with reading intervention have an added impact on response to intervention? and Does integrating motivational intervention with reading intervention have an impact on future academic performance and the need for additional subsequent intervention? The goal of this proposed research is to gather together the necessary partners, materials, intervention design, and pilot data to develop a series of grant proposals to conduct a comprehensive study.

Since the re-authorization of the Individuals with Disabilities Education Improvement Act (IDEIA), response to intervention (RTI) has become an increasingly popular framework for schools to use when identifying students in need of supplemental academic support. This has led to the development of a number of different multi-tiered RTI models that could be used in this process. While these models can differ greatly on the decision rules they institute and the types of assessments that they use, their basic goal is consistent: to evaluate whether interventions provided to students have resulted in adequate changes to academic and/or behavioral performance (Gresham, 2002).

In order to make the determinations regarding students' need for additional academic support (intervention) and to track students' response to intervention, most RTI models rely heavily on curriculum based measurement (CBM; Shinn, 1989). In the domain of reading, the most widely used CBM probes are timed readings of grade-level passages, commonly referred to as fluency probes. More recently, there has been an influx of additional types of CBM probes that can be used to quickly and efficiently assess other aspects of students' reading performance. Regardless of the type of CBM probes used in RTI, the primary focus is on assessing fundamental reading skills; however, these assessments offer little information regarding other aspects of the student that may be contributing to their reading problems, such as motivation.

There is a growing body of research evidence that suggests a bi-directional relationship between reading motivation and reading skill (see Morgan & Fuchs, 2007). The connection between reading motivation and reading skill is thought to be due to its link with reading practice (Guthrie, Schafer, & Huang, 2001; Stanovich, 1986), which is considered critical to the development of a wide range of skills such as sight word recognition, reading fluency, comprehension, and vocabulary development (Cunningham & Stanovich, 1991; Echols, West,

Stanovich, & Zehr, 1996; Griffiths & Snowling, 2002; Guthrie, Wigfield, Metsala, & Cox, 1999; Leppanen, Aunola, & Nurmi, 2005). Given this background, it seems logical that any approach working to remediate struggling readers would need to take into consideration reading motivation as well as reading skill. However, very few RTI models collect or use data on students' motivation. One model that does take motivation into consideration is the System to Enhance Educational Performance (STEEP; VanDerHeyden, Witt, & Naquin, 2003). In this model, students' performance is evaluated in terms of whether their performance reflects what they "can't do" or what they "won't do." The model addresses this problem by assessing the student a second time using an extrinsic reward as a performance motivator. However, no data is collected to inform what may be causing the motivational problem; therefore, motivational problems remain ignored if the student still performs below the designated criterion and is subsequently provided a reading intervention based on their second (extrinsically reinforced) reading performance.

The goal of this proposed research would be to integrate motivational considerations within an RTI framework. The research questions this collaborative research would address are:

- 1) Do students who are identified for reading intervention have discernible motivational profiles?
- 2) Do students who respond to reading intervention differ in motivation (quantitatively and/or qualitatively) from those students who do not respond to intervention?
- 3) Does integrating motivational intervention with reading (skill based) intervention have an added impact on response to intervention (rate of response or duration of intervention)?

- 4) Does integrating motivational intervention with reading intervention have an impact on future academic performance and the need for additional subsequent intervention?

The proposed research would require bringing together four scholars from diverse regions of the country with interest and expertise in RTI and/or academic motivation. This group would meet to discuss and refine the above research questions. The project would require each scholar to recruit one school from their local area that is currently conducting RTI to participate. In addition, participating researchers would need to identify a reading motivational measure that could be efficiently integrated into an RTI framework to gather pre-post motivational data from all students in their school that are identified for reading intervention. Each researcher would need to secure reading achievement (benchmarking and progress monitoring) data from all of the participating students so that data could be compiled across research sites. Findings of this research would be disseminated at national and regional conferences as well as through published research articles.

The proposed budget would be as follows:

Budget Item	Projected Cost
Materials (office supplies, copies, etc.)	\$1,000
.50 Researcher Summer Benefits	\$5,000
.25 Graduate Student Researcher Summer Salary	\$2,000
Honorarium for participating school	\$1,000
Subtotal	\$9,000
Total Cost (per Researcher X 4 Researchers)	\$36,000

This line of research would be enhanced by a multi-site collaboration for many reasons.

First, conducting research on a highly specified population of students, such as struggling readers, makes it difficult to gather enough data to conduct reliable and generalizable analyses.

Second, reading problems and motivational characteristics are impacted by cultural and linguistic diversity; therefore, examining these issues in areas that differ along demographic lines would also enhance the generalizability of the findings of such research.

References

- Cunningham, A. E., & Stanovich, K. E. (1991). Tracking the unique effects of print exposure in children: Associations with vocabulary, general knowledge, and spelling. *Journal of Educational Psychology, 83*, 264-274.
- Echols, L. D., West, R. W., Stanovich, K. E., & Zehr, K. S. (1996). Using children's literacy activities to predict growth in verbal cognitive skills: A longitudinal investigation. *Journal of Educational Psychology, 88*, 296-304.
- Gresham, F. M. (2002). Responsiveness to intervention: An alternative approach to the identification of learning disabilities. In R. Bradley, L. Danielson, & D. P. Hallman (Eds.), *Identification of Learning Disabilities* (pp.467-519). Mahway, NJ: Erlbaum.
- Griffiths, Y. M., & Snowling, M. J. (2002). Predictors of exception word and nonword reading in dyslexic children: The severity hypothesis. *Journal of Educational Psychology, 94*, 34-43.
- Guthrie, J. T., Schafer, W D., & Huang, C. (2001). Benefits of opportunity to read and balanced instruction on the NAEP. *Journal of Educational Research, 94*, 145-162.
- Guthrie, J. T., Wigfield, A., Metsala, J. L., & Cox, K. E. (1999). Motivational and cognitive predictors of text comprehension and reading amount. *Scientific Studies of Reading, 3*, 231-256.
- Leppanen, U., Aunola, K., & Nurmi, J. E. (2005). Beginning readers' reading performance and reading habits. *Journal of Research in Reading, 28*, 383-399.
- Morgan, P. L., & Fuchs, D. (2007). Is there a bi-directional relationship between children's reading skills and reading motivation? *Exceptional Children, 73*, 165-183.
- Shinn, M. R. (Ed.). (1989). *Curriculum-Based Measurement: Assessing Special Children*. New York: Guilford Press.

Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly, 21*, 360–407.

VanDerHeyden, A. M., Witt, J. C., & Naquin, G. (2003). Development and validation of a process for screening referrals to special education. *School Psychology Review, 32*, 204-227.