

2009 School Psychology Research Collaboration Conference

Application Materials

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Statement of Personal Research Agenda

School psychology researchers, trainers, and practitioners have recently demonstrated interest in service delivery models that focus on prevention and early intervention for academic and behavioral difficulties. Response-to-intervention (RTI) in particular has received significant attention in the recent literature and has received widespread support. Following inclusion of RTI in the reauthorization of the Individuals with Disabilities Education Act (2004), many state legislatures are adopting regulations that require either gradual or immediate implementation of the model in public school districts.

The emphasis RTI places on high-quality instruction, data-based decision making, and prevention-oriented service delivery is difficult to dispute in the context of existing research. Moreover, problem-solving models similar to RTI have been successfully implemented in some school districts and states with positive outcomes (Ikeda, Rahn-Blakeslee, Niebling, Gustafson, Allison, & Stumme, 2007; Marston, Lau, & Muyskens, 2007). The empirical literature supporting the efficacy of RTI, however, is still developing. Continued commitment to establishing RTI models that work effectively in applied educational settings is necessary to facilitate and maintain a paradigm shift of such magnitude. As an early career researcher, I envision an increasingly ambitious program of research focused on RTI implementation in practical settings.

My previous efforts in this area have been devoted primarily to the use of universal screening data and the efficacy of Tier I instruction and environment. My thesis research, for example, investigated teachers' use of universal screening data; teachers generally did not find the data particularly useful and did not seem to incorporate the information into their instructional practices. My dissertation project investigated classroom variables thought to

impact students' reading and behavior outcomes. This research revealed that individual factors were much more significant in predicting outcomes than were any of the classroom (i.e., Tier I) variables, thus underscoring the importance of universal screening and early, intensive intervention upon entrance to formal schooling.

Over the next three to five years, I intend to develop a research agenda focused on investigating RTI implementation, with two primary foci. First, I expect to examine RTI from a systems standpoint. As schools and districts begin shifting toward RTI, it is critical to identify factors that act as barriers and facilitators to implementation, particularly in schools that have no access to grant monies or university resources (Kratochwill, Clements, & Kalymon, 2007). This line of research will allow policymakers to consider and address significant barriers, such as limitations on funding, personnel, appropriate training, or consultation. It may also enable school districts to anticipate challenges prior to moving forward with implementation.

Second, there has been recent debate in the professional literature regarding the utility of Tier III interventions with regard to remediating student deficits (Denton, Fletcher, Anthony, & Francis, 2007). Some researchers suggest that Tier III has limited efficacy for helping students catch up to their peers and may be better conceptualized as an intensive problem-solving and intervention planning stage (Gresham, Restori, & Cook, 2008). I anticipate investigating these issues further, both through intensive work with individual districts and via a multi-site collaborative study. In particular, a comparison and analysis of various Tier III activities may provide researchers and practitioners with data concerning the cost effectiveness of implementing Tier III interventions within general education (as opposed to special education) settings. This line of research will guide future conceptualizations of RTI, its overall effectiveness, and the practicality of adopting the model in school settings.

References

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Abstract

The proposed collaborative, multi-site research project focuses on response-to-intervention (RTI) implementation in early elementary settings. The project will compare various models of RTI implementation, with particular focus on the most efficacious and effective intervention activities at Tier III. Two specific research questions will comprise the central focus of the study:

1. Do Tier III intervention response rates differ based on whether schools implement (a) a standard treatment protocol, (b) individualized intervention based on existing data and team input, or (c) individualized intervention based on a comprehensive evaluation?
2. Is there a significant interaction between type of Tier III intervention and student grade?

To answer these questions, 8-12 participating elementary schools will be randomly assigned to one of four RTI conditions: (a) no-RTI control, (b) standard treatment protocol, (c) team-based intervention design, or (d) evaluation-based intervention design. The study will run for approximately three semesters, allowing one semester of training and one full academic year of RTI implementation. The proposed project will significantly contribute to the existing RTI literature by producing data from a large-scale implementation initiative and providing some evidence regarding the relative effectiveness of various Tier III intervention approaches.

Proposed Collaborative Research Project

Recent literature in the field of school psychology has addressed important issues and concerns with regard to the implementation of response-to-intervention (RTI) models (Jimerson, Burns, & VanDerHeyden, 2007). Although research support for RTI is slowly accumulating, the nature of empirical study requires a significant investment of time and resources to produce valid conclusions. That is, research regarding the efficacy of RTI essentially requires the model to be implemented in school settings, an undertaking which presents myriad challenges for researchers and collaborating schools. The study proposed below has been conceived to further contribute to the developing body of RTI research by (a) describing the characteristics and proportions of students who do and do not respond to Tier I and Tier II interventions, and (b) examining conceptual and methodological issues related to Tier III intervention. The first goal will be addressed primarily by describing study participants and the movement of participants between levels. The second research goal will be the primary focus of the proposed study.

Proposed Research Questions

Recent literature and discussion has centered on the kinds of activities that should appropriately characterize Tier III intervention. For example, are packaged intervention programs effective in meeting the needs of students who have not responded to Tier I or Tier II (Denton, Fletcher, Anthony, & Francis, 2007)? Are traditional cognitive assessments useful in structuring an intervention plan for students at Tier III (Flanagan, Ortiz, & Alfonso, 2008)? Moreover, although research is growing with regard to the effectiveness of preventive programming at Tiers I and II, little research exists investigating the added efficacy of Tier III intervention. If anything, Tier III interventions that use a standard treatment protocol, as opposed to individually tailored approaches, appear to produce insufficient responses in students who did

not respond at Tier II (Denton et al., 2007). The following research questions are proposed to investigate the issue of appropriate Tier III intervention selection and implementation:

3. Do Tier III intervention response rates differ based on whether schools implement (a) a standard treatment protocol, (b) individualized intervention based on existing data and team input, or (c) individualized intervention based on a comprehensive evaluation?
4. Is there a significant interaction between type of Tier III intervention and student grade?

Context and Participants

To conduct this study, it will be necessary to recruit 8-12 elementary schools willing to allow RTI implementation in all kindergarten through third grade classrooms. An effort will be made to recruit schools of similar size and with similar demographic characteristics, although geographic location will likely depend upon the principal investigators involved in the project. This should result in a student pool of at least 1200 children in grades K-3. After an acceptable pool of schools has been recruited, each school will be randomly assigned to one of four conditions: (a) no-RTI control, (b) standard treatment protocol, (c) team-based intervention design, or (d) evaluation-based intervention design. The study will run for approximately three semesters. Training will occur during the first semester. An emphasis will be placed on training school personnel to implement and sustain all components of RTI, including implementing all tiers of intervention, screening and progress-monitoring data collection and management, and data-based decision-making by a building-level RTI teams. The second and third semesters will span a full school year of RTI implementation and data collection, implemented by school personnel with support and consultation from the principal investigators.

Budget

An estimated budget for full implementation of the proposed project is \$180,000, as itemized below:

Evidence-based Curriculum	\$150,000
AIMSWeb Data Management	\$ 10,000
Travel Expenses	\$ 5,000
Project Assistant Compensation	\$ 15,000

Challenges and Advantages

Collaborative, multisite research is often problematic with regard to logistical issues, such as adequate communication, face-to-face meetings, complete and accurate data collection, and timely access to data and materials. These issues are anticipated in the proposed study, although current technology and prior researcher experiences will heavily factor into planning and implementation of effective collaboration. University resources are available to support communication and data management across sites.

Several advantages are apparent in the context of this particular project and far outweigh the potential challenges. First, the level of planning and researcher involvement required to complete the proposed project would be unmanageable for a single investigator; collaboration will be essential to bring this proposal to fruition. Second, although this proposal addresses critical research questions, the scope of the project and the expertise required to design and execute it with integrity are likely beyond the preparation of an early career scholar.

Collaboration with seasoned researchers will be instrumental in securing the necessary funding, and will also afford the opportunity for professional development and career mentoring. Finally, the multi-site nature of the study will provide flexibility in the geographic location of the schools selected, thus increasing generalizability of the results to a range of school settings.

References

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