Implementing RTI in Two Rural Elementary Schools:
Encouraging Beginnings and Challenges for the Future

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Response to Intervention (RTI) models are currently being implemented in many school districts nationwide. However, at a time when interest in RTI is high, the extent to which it is being implemented effectively in rural schools is largely unknown. Teachers and administrators in two rural elementary schools in the Southeastern United States who were part of a state-wide RTI pilot project participated in this study. Interviews were conducted along with field observations of classroom instruction and team problem-solving meetings. Using a multi-step process for data analysis, various implementation themes emerged related to tiered instruction, data-based decision making, support for model implementation, and collaboration. Findings in these areas support issues raised in the literature regarding factors in rural schools that may impede or enhance fidelity of model implementation. Implications for practice and future research are discussed.

Key Words: RTI, rural, team problem-solving, data-based decision making, tiered instruction.

A response to intervention (RTI) approach has been advocated nationally as a means to provide early intervention, prevent academic problems, and identify learning disabilities (LD) (Berkely, Bender, Peaster, & Saunders, 2009; Fuchs, Mock, Morgan & Young, 2003; Fuchs, & Deshler, 2007; Fuchs, & Fuchs, 2009). Research indicates that RTI models have been used in reading (e.g. Fuchs, Fuchs, Compton, Bouton, Caffrey, & Hill, 2007), math (e.g. Fuchs, Fuchs, & Hollenbeck, 2007), and behavior (e.g. Fairbanks, Sugai, Guardino, & Lanthrop, 2007) and are being implemented in different ways in many districts (Division for Learning Disabilities, 2007; Fuchs, Mock, Morgan, & Young, 2003). Unfortunately, at a time when interest in RTI is high nationwide, a precise blueprint for implementing it does not exist (Gersten, Compton, Connor, Dimino, Santaro, Linan-Thompson, & Tilly, 2009). The lack of agreement about the procedural steps needed for implementation of RTI has contributed to the uncertainty involved when leaving traditional practices behind without a clear plan for preparing personnel to put a different approach in its place (Werts, Lambert, & Carpenter, 2009; Barnes & Harlacher, 2008; Harmon, Gordanier, & Henry, 2007; Stephens, 1998).

Rural schools may encounter a host of additional challenges when implementing RTI. Schools in rural communities often have a difficult time recruiting highly qualified teachers due to lower salaries and limited social and cultural opportunities available within more remote areas (Bryant, 2010; Lemke, 2010; McClure, 2006; Strange, 2011). While teacher turnover in rural areas tends to be lower, without an influx of newly trained teachers, rural educators may not be familiar with current research and methods (Werts et al., 2009), a matter of particular importance to RTI with its emphasis on the implementation of evidence-based practices with fidelity. Access to effective staff development is therefore particularly essential in rural regions and can be challenging when factoring in travel expenses, sparse resources, and fewer connections to higher education due to remote school locations (Clarke & Wildy, 2011). In addition, it may prove difficult for rural schools to leverage funds and draw a suitable candidate pool for support positions necessary for RTI implementation such as intervention specialists, instructional coaches,
RTI coordinators, school psychologists, and speech and language pathologists, (Clark & Wildy, 2011; Stecker, Fuchs, & Fuchs, 2008). Last, the decision-making requirements for RTI require effective screening, progress monitoring and other data management tools (Sawchuk, 2011; Stecker, Fuchs, & Fuchs, 2008). RTI components that may require considerable district resources and teacher expertise.

Given the potential pitfalls involved in implementing RTI in rural areas, Gersten & Dimino’s (2006) view that “the study of (RTI) implementation is just as important as the study of its outcomes” (p.105) makes considerable sense. The purpose of this exploratory research was to study the experiences of two rural schools in the Southeastern United States during their first year of piloting an RTI problem-solving model. Interviews of project staff along with observations of multi-tiered instruction and team problem solving were conducted to answer the following research questions:

1. What successes and challenges have the rural schools experienced in implementing the problem-solving RTI process?
2. What factors have impeded and/or facilitated successful implementation of a problem-solving RTI model?

Context

Two elementary schools from a rural school district in the Southeastern United States participated in the study. The schools were selected from a list of elementary schools piloting the state’s RTI model provided by the Exceptional Children’s Consultant for the state’s Department of Public Instruction. Because these schools volunteered to be pilot sites, and were about to complete their first year of implementation, it was felt they would provide an excellent lens through which the process of implementing RTI could be viewed and analyzed. Both schools served kindergarten through fifth grade students, a majority of whom were Caucasian.

Based on the state school report card, the percentage of third through fifth grade students in School 1 who passed the reading and math high stakes assessments was 62.1% and 76.4% respectively. The percentage of students from each disaggregated group who passed both the reading and math tests are as follows: White: 62%, Black: 45%, Hispanic: 36.4%, Multiracial: 35.7%, and students with disabilities: 32.1%.

For School 2, 63.2% of third through fifth graders passed the reading test, while 82.8% passed the math test. The percentage of students grouped by ethnicity and disability who passed both the reading and math tests is as follows: White: 71.2%, Black: 36.4%, Hispanic: 53.8%, Multiracial: 71.4%, and students with disabilities: 27.8%.

The schools had adopted the state-approved Problem-Solving Model, an inductive process that evaluates students’ behavior or academic responsiveness in four stages including problem identification, problem analysis, implementation of a plan, and problem evaluation (Burns, Wiley & Viglietta, 2008; Fuchs, et al., 2003). The purpose of this process is to provide a data-based foundation for planning a systematic set of interventions at each of 3 increasingly intensive instructional tiers. Implementation of the problem-solving process was carried out by multidisciplinary teams made up of specialists and teachers trained in the four-stage problem-solving process (Fuchs, Mock Morgan, & Young, 2003; NCDPI, 2008).

Sample and Sample Selection

Participants were selected for interviews using purposive sampling (Patton, 1990); the purpose was to select persons who could provide rich information regarding implementing RTI practices. Participants were selected by the principal at one school and the curriculum facilitator at the other. Participants had little to no knowledge of and no formal training in the RTI process prior to their schools receiving professional development as pilot sites and for their first year of implementation. Those individuals selected for interviews included general education teachers at a range of grade levels who had taken at least three students through the RTI process, as well as special education teachers and administrators who had been actively involved in the first year of implementation of RTI. It was felt that these persons, because of their experience, would be able to attach more meaning to the practices and the process than participants who did not have any experience with the RTI process. In all, a total of seven teachers were interviewed at School 1, and six teachers at School 2. Among the teachers interviewed, all had received formal degrees in education. Years of teaching experience ranged from 1 year to 25 years, with 12.8 years being the average. The principal of school 2 was also interviewed while School 1
opted to have the entire building team interviewed rather than just the principal. Finally, the Director of Special Education for the local education agency (LEA) housing the two pilot schools was also interviewed. All participants were female with the exception of the Special Education Director.

Methods of Data Collection

Data were collected by the first and second authors, both of whom had previous experience with implementation of RTI in public school settings, the second author as the Principal Investigator in a federal model-demonstration project as well as the co-author of a book on multi-tiered reading instruction. Data collection involved conducting interviews with teachers and administrators along with field observations of classroom instruction and team problem-solving meetings. Participant interviews were audiotaped to record exactly what was said and later transcribed. For all cases, the participants were interviewed formally one time. Data from field observations of instruction and team problem-solving were gathered using field notes. Interviews and classroom observations took no longer than 45 minutes. Observations of team problem-solving meetings were much lengthier, with both observations lasting more than two hours.

A general interview protocol was developed based on the research questions for this study. The protocol incorporated implementation issues related to RTI including questions related to participants’ perceptions of the meaning and purpose of the RTI process; the process employed to implement and support RTI school-wide; their role in RTI implementation; decision-making within the team problem-solving process; collaboration requirements of RTI; instruction within the 3 instructional tiers, including the use of scientifically-based instructional practices; and the most significant challenges and successes of the pilot year. A semi-structured interview methodology (Schensul, Schensul, & LeCompte, 1999) was employed. While the issues addressed in the questions did not vary, the exact wording of the questions did, depending on who was being interviewed and how they were responding. This enabled the interviewers to gear the questions to each individual interviewed, and thus create a more natural flow of conversation by basing the precise wording of the questions on the participants’ responses (Kavale, 1996).

Data Analysis

Interviews were transcribed and verified against the audiotapes to ensure completeness and accuracy. Interviews were analyzed using a multi-step process (Miles & Huberman, 1994). A set of topical codes was developed by the first and second authors independently based on a reading of a subset of the transcribed interviews. These descriptive codes were created based on broad constructs or topics related to the RTI literature as well as the research questions. Differences in coding categories were discussed and reconciled for each question. The codes were then further manipulated and displayed graphically in matrices, both across and within cases, in order to identify issues or themes within the topical areas identified (Miles & Huberman, 1994). Examples from the field notes and quotes from the interviews were then used to provide more concrete evidence to support the issues and themes identified. To check the findings and interpretations of the results, member checking was completed at the end of the research. Member checking was accomplished by sending both schools a written summary of the findings along with a request for any findings that they deemed inaccurate and/or incomplete. Both schools were in agreement with the findings.

Findings

Four major topics related to RTI implementation emerged from the coding process including issues related to evidence-based instruction, data-based decision making, collaboration, and support for model implementation. These topics encompass issues and themes raised in the literature about RTI implementation (Berkely, Bender, Peaster, & Saunders, 2009; Bursuck et al, 2004; Fuchs & Deshler, 2007; Gersten & Dimino, 2006; Gersten et al, 2009) and that are relevant for implementation in rural schools (Bursuck, Robbins & Lazaroff, 2010). These key topics and related issues and themes are described in more detail in the remainder of the findings section.

Evidence-Based Practices

Decision-making within the RTI framework depends on evidence-based practices being implemented with fidelity within successive tiers (NRCLD, 2006). Of major concern were findings at both schools indicating limited
An understanding of what constitutes evidence-based instruction in the academic skill areas, especially written expression and math. This lack of knowledge was evidenced in several ways including the use of practices that were not evidence-based, particularly in Tiers 1 and 2, and the lack of a research-based core reading program. A core reading program is the primary reading program used by a school with the expectation that all teachers will use it to successfully provide a foundation for reading instruction for a majority of the students. Having a core program that is scientifically-based can be helpful for a school just beginning to implement RTI as the content and pedagogy employed provide a good model for teachers and help ensure that instruction is comprehensive and leads to positive student outcomes (Bursuck & Damer, 2011).

Both schools appeared to rely on two sources for selecting materials and instructional strategies: external sources and materials already available in the school. External sources consisted of workshops and consultation with state personnel and university professors. While much of the content of the workshops was evidence-based, and staff perceived this option as helpful, instructional strategies covered in workshops are not likely to generalize to daily practice without a plan for regular follow-up (Garet, Porter, Desimone, Birman, Yoon, 2001). No such plan for follow-up on-site coaching was evident at either school. The second source, materials and strategies already available and used in the past, is obviously cost effective, a concern for rural schools, and a comfortable one as it requires little change in daily routines. Unfortunately, resources available are not always research-based.

Data-based Decision Making

A positive finding was that a culture of data-based decision making was beginning to develop in both schools. When asked how data had affected the staff’s Tier 1 instruction, one teacher explained, “It’s looking at students in a different way, looking at data to make your decisions...It’s different than what we’ve ever done before and we’re still learning as a school.” Teachers were using universal screening and progress monitoring data to identify students for support in all 3 tiers. For example, teachers within a number of grade levels were using universal screening data to differentiate instruction in Tier 1 using small flexible groups during what they called “magic time” or “learning zones” where students received extra instruction in areas of difficulty. In this way, students were identified for support earlier, and without the need for labeling. These data were only available for one of the schools but showed fewer referrals to special education. For example, in the year prior to implementation of the RTI model, data showed 17 students were initially referred for special education services while eight students qualified. During the year of our study, only three students were referred and qualified for special education services.

Another challenge in implementing a system of data-based decision-making involved overall implementation of the problem-solving process itself. While both schools made a good faith effort to implement the problem-solving model to make decisions regarding tier placement, the process was time-consuming and inconsistent. One teacher responded, “We spend forty-five minutes and it’s almost not enough time to do that first component of tier 3 paperwork...it’s just a lot of information.” This process can become even more difficult in rural areas as these schools tend to have a high number of students within the lower 20th percentile, which could mean that more intensive instruction is needed for the entire class rather than a targeted group of students (Kashi, 2008). Implementation problems may have been due to lack of familiarity with the workings of the model; indeed, when asked what the problem-solving model was, most teachers rarely referred to the four problem-solving steps. In addition, our observation of a problem-solving team meeting at each school revealed that teachers often failed to come to the meeting with data, rendering decision-making more difficult. This could be due to the fact that the staff was not used to using data. They’re really not, one teacher observed. Consequently, an administrator noted, there is insufficient staff with enough knowledge of the probes, the curriculum based probes that we’re using to actually help teachers understand what the interventions are looking like, what the probes are telling them relative to intervention and having them understand kids relative to their aim lines and showing progress and where to move them within an intervention structure.

Finally, there was no attempt on the part of the team leaders to impose time restrictions on the decision-making process.
Despite these problems, when asked about their perspective on using a problem-solving model, most teachers responded positively, indicating that they thought the process had value despite the amount of time and paperwork needed to complete it. One teacher responded, *The problem-solving model has helped make this process much more individualistic rather than kind of cookie cutter.... It's really helping teachers to aim at where is the problem, and where's the problem starting.*

**Collaboration**

The RTI implementation appeared to be leading to increased collaboration, both among general and special education teachers within and across grade levels and among teachers and parents of students struggling to learn. One teacher commented, *I think the collaboration between just teachers, general ed. teachers, special ed. and just everybody on staff as a whole has really made [the RTI process] positive.* Particularly encouraging was that increased collaboration with families was accomplished without the need for referral to special education. A third grade teacher commented,

*The major success is ...to be able to have that conversation with a parent. Oh your child is weak here or your child's strengths are here. This is where we need to target. And that in itself is just a huge success for us.*

Due process rights for parents and students with disabilities have been key components of IDEA from the beginning, largely because historically their due process rights have been violated. One very important potential benefit of RTI is that parental rights are respected more naturally.

While collaborative efforts increased, general and special education teachers agreed that scheduling time for collaboration was challenging. Teachers indicated that there was not enough time in the school day for collaborating with colleagues. A fifth grade teacher commented,

*The drawback ... is having the time to meet to plan flexible grouping and then just to plan what you're gonna do with those groups. That is a major barrier, in my opinion with RTI, being able to meet and collaborate with each other and figure out what are we gonna do, what are we gonna use, how long are we gonna do this, how are we gonna measure success.*

**Implementation/Support**

A key factor in the adoption of any educational innovation is the extent of teacher “buy in” (Turnbull, 2002). While our sample of teachers interviewed was chosen by the principal in one school and the problem-solving team in the other, a definite limitation, those interviewed were genuinely enthusiastic about implementing the RTI model. One explanation is that in both schools, RTI was being implemented incrementally. In regard to the kind of change involved in moving toward RTI implementation, incremental change is one of the criteria (Marzano, Waters, & McNulty, 2005). Indeed, the teams commented that a step-by-step approach recommended by the state was followed so that staff would not become overwhelmed. In addition, both schools employed models for school change that were a combination of “bottom-up” and “top down” approaches, a recommended way of bringing about school change (Fullan, 2007). Strong support from school leadership led to general support for the project at both schools. Interestingly, each school displayed a very different type of leadership. In one school, the principal played a primary role, leading team meetings and conducting classroom observations, and monitoring the overall implementation. In the other school, which had had turnover in principals, leadership came from the problem-solving team, of which the principal was a member. Evidently, it is the manner of exercising leadership that is important, not whether it comes from a single person or group (Billingsley, 2007; Friend & Cook, 1990). This may be particularly important in rural schools where there may be difficulty attracting administrators with the required expertise and knowledge (Harmon, Gordanier, & Henry, 2007).

It is clear that professional development support from the state was crucial to first year implementation of the pilot projects. Staff and administrators found state-supported workshops in evidence-based reading to be helpful and important. Visits to schools from around the state that were more experienced in RTI implementation were also deemed especially helpful.

Fidelity of implementation addresses whether the RTI model is being carried out as
intended. The establishment of fidelity is crucial both for accurately assessing student needs as well as for providing essential feedback on implementation to teachers. Both schools checked fidelity via required paperwork, yet there were no direct fidelity checks of assessment administration, tier implementation, or whether a clear decision-making model was being followed (Gresham, 1989; NRCLD, 2006). Clearly, such fidelity procedures coupled with on-site professional development are necessary if the model is to be successful in the future. Regarding the whole process, one administrator reflected, There are some things we have lots of resources and lots of potential, but there [are] some areas that we’re lacking in. One teacher indicated that two main challenges are the absence of support personnel and hiring issues. One of the challenges is honestly personnel. It’s personnel and money…We don’t have the classroom teachers…to run [the] whole classroom, tier one, tier two, and a tier three.

Discussion

Based on our findings, providing evidence-based instruction proved challenging. The challenges in providing evidence-based instruction may be exacerbated by the chronic funding shortfalls experienced in rural schools (Jimerson, 2005; Sparks, 2011). A third grade teacher questioned how to use limited resources by stating, that’s always a challenge…how do you manipulate your resources for the best effect of children? Funding shortages can also lead to fewer professional development opportunities and limited resources to hire instructional coaches (Harmon, Gordanier, & Henry, 2007). Both teachers and administrators at each school indicated limited access to professional development. When referring to using evidence-based instruction, a principal stated the challenges as, getting teachers trained, adequately trained and having the resources to purchase what needs to be purchased. Another teacher stated, I’m hoping that…we get more staff development on…how to write goals, how to choose goals, and how to make sure your interventions meet your goals. While universities, state agencies, and resource centers can help meet the distinct needs of rural school districts (Stecker, Fuchs, & Fuchs, 2008; Howley & Howley, 2005; Wald & Castleberry, 2000), professional development opportunities through these sources are limited due to location, technology deficits (e.g., outdated programs, bandwidth capacity, security blocks, etc.), compatibility, and technological knowledge. Also, far too many rural school districts face problems in recruiting and retaining highly effective teachers and therefore need to promote high quality professional development to prepare teachers currently in the schools to implement scientifically based strategies. Clearly, rural school systems must become more innovative in developing opportunities for meaningful professional development through online courses and workshops (Beesley, 2011; Stecker, Fuchs, & Fuchs, 2008), growing their own trainers and teacher leaders (to support fidelity checks, observations, coaching, and follow-up training), as well as seeking out partnerships with universities to support and implement classroom research-based practices (Alber & Nelson, 2002). This scaffolded level of support will increase the likelihood that information provided during the initial professional development activity will move from theory into classroom practice.

In regard to overall implementation and support, we found that state supported professional development was crucial to first year implementation of the pilot projects. State support may be especially important for rural schools where there are likely to be limited individual school resources available to sustain RTI implementation. The current decrease in state resources allocated to education may make the continued effort to implement RTI in rural schools more difficult. Further, it is often difficult to encourage departments within a rural school system to consolidate federal and local monies to unite towards a common vision or initiative (Sparks, 2011). Consequently, antiquated models of service prevail due to lack of funds and the complexity of the process involved in successful RTI implementation.

Our findings are limited by the fact that we only studied two schools who were voluntarily implementing an RTI model. In addition, the projects were only in their first year of implementation and the teachers interviewed were selected by the school leadership. Interview questions targeted participants’ perceptions of the meaning and purpose of the RTI process but did not specifically address rural issues. Finally, the findings and interpretations of the results are viewed through the lens of the authors who have knowledge and experience with the RTI process. Personal biases may have played a role in their interpretations of the data collected in the study.
**Conclusion**

Overall, the results are of value for other rural schools that are planning to or are currently implementing an RTI model. We learned that implementation of RTI in rural schools with fidelity and on a sustained basis requires effective, on-going professional development, fiscal and administrative (building, district and state level) support, recruitment and retention of highly qualified personnel, and use of scientifically-based instruction, including the continuous monitoring of student progress to inform instructional decision making. In addition, allocated federal and local funds need to be consolidated to better support RTI initiatives (Sparks, 2011), eliminating the current problem of schools and /or departments within the system operating as separate silos. Building a strong network and support system around RTI schools is also needed in order to deliver innovative instruction to increase student achievement. In our view, RTI can play a key role in creating an integrated system where students who struggle to learn can be supported without necessarily having to receive special education (NASDE/CASE, 2006). Support from general education will be crucial if RTI is to emerge successfully from pilot status to a generally accepted practice.

Lastly, building upon the traditionally stable rural teaching workforce through effective professional development is critical. Teacher leaders need to continue to educate others within the system, while seeking outside training and support to understand current practices and resources available. Building RTI infrastructure in all of the aforementioned areas can be problematic for rural school leaders who will need to adjust and creatively devise realistic long-term plans to overcome these barriers and deliver RTI services effectively and efficiently based on current research.

Findings in the areas of tiered instruction, data-based decision making, support for model implementation, and collaboration provide several avenues for future investigations. The observations of the teachers and administrators interviewed in this study showed that in order for RTI implementation to be successful in rural schools, on-going professional development, fiscal and administrative support, recruitment and retention of highly qualified teachers, technology support and scientifically-based instructional practices need to be established. Future research on RTI practices in rural schools needs to more thoroughly investigate how these variables can be brought to bear in helping rural schools implement RTI with fidelity. For example, what challenges and successes have rural schools with more years of RTI implementation experienced? What challenges have rural schools faced in expanding their RTI models to cover math and writing and what strategies have they used to overcome these challenges? Which aspects of the problem-solving RTI process are most and least helpful? What are ways the problem-solving model can be implemented more efficiently and/or adapted for use in rural schools? What alternative resources can staff in rural schools access to establish core, research-based curricula? What are the differences between rural and urban teachers’ experiences implementing RTI? What are effective leadership strategies for implementing RTI in rural schools?

**References**


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