QUALITATIVE ANALYSIS OF TIER 3 RESPONSE TO INTERVENTION IMPLEMENTATION IN SCHOOLS

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ABSTRACT

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The aim of the present study was to investigate whether or not school districts that employ school psychologists who have been trained to use the RTI model are currently using RTI practices to identify students in need of intervention or as part of the disability determination process. Specifically, the use of Tier 3 case studies as part of the disability determination process was explored. Several factors were identified as obstacles or factors supporting RTI implementation, including administrator support, teacher support, professional development and training for staff, and having procedures in place for intervention implementation and data collection.
Dedicated to my husband and my son.
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CHAPTER I
INTRODUCTION

The President’s Commission on Excellence in Special Education recommends the use of response to intervention (RTI) for determining services for students with specific learning disabilities (SLD) or other high-incidence disabilities (U.S. Department of Education, Office of Special Education and Rehabilitation Services [OSERS], 2002). RTI requires that students receive research-based instruction and undergo progress monitoring prior to special education placement. RTI is organized along a three-tier continuum in which interventions become progressively more intensive at each subsequent tier. Tier 1 includes research-based instruction in the general education classroom. Tier 2 involves targeted small-group interventions. Tier 3 includes individual case studies, which may contribute to decisions regarding special education eligibility and placement. Single-case designs allow school-based teams to use scientifically supported methods for making intervention and special education decisions (Barnett, Daly, Jones, & Lentz, 2004). The aim of the present study was to determine whether or not RTI was being used in school settings to identify students for special education using Tier 3 case studies. Factors
surrounding the implementation or lack thereof were analyzed for patterns and themes with the primary goal of the study being the generation of theory relating to why RTI is or is not being used in schools.
CHAPTER II
LITERATURE REVIEW

This literature review describes the three tier model of response to intervention (RTI), with a focus on single-case designs at Tier 3 and the steps of the problem solving process used at this level of intervention. Possible obstacles to RTI implementation identified by current literature are discussed. The review concludes with a discussion of the purposes of qualitative research pertaining to the present study and explores the rationale and appropriate methods of qualitative inquiry.

Response to Intervention: A Three Tier Model:

Response to intervention is a three-tiered model (NRCLD, 2005). Tier 1 is applied on a school-wide basis, in which the majority of students receive instruction in the general classroom through the use of research-based core instructional programs and progress monitoring for identification of students for Tier 2 interventions. In Tier 2, at-risk students are identified for more intense intervention. This level involves small group supplemental instruction, usually provided by a specialist, tutor, or special education teacher. Each round of intervention typically lasts eight to twelve weeks and at the end of this time period, a decision is made about the student’s instructional needs. The student may either return to the general classroom if adequate progress has been made, receive another round of Tier 2 intervention if he or she is achieving progress but continues to lag behind grade level expectations, or be considered for more intensive intervention in Tier
3. Students advance to Tier 3 for more specialized instruction when they do not respond to the interventions provided in Tier 2. Instruction is individualized or provided in small groups. It involves more intensive support and may continue for longer periods than Tier 2 intervention.

Mellard (2003) identifies core components of strong Response to Intervention (RTI) models. Classroom instruction must be high quality, which may be evaluated by comparing the students’ rates of learning and achievement in different classes at the same grade level. Instruction must be research-based to ensure that students’ gains are independent of the classroom experiences. Teachers must design and complete student assessments based on the subject matter taught. There must be a universal screening process for determining which students should be monitored or may need intervention, and there must be continual monitoring of progress so that teachers can efficiently identify learners who are not meeting learning goals. After identifying these students, teachers implement research-based interventions and collect data to monitor student progress. The intervention is modified if necessary and data are used to evaluate intervention effectiveness.

**Single Case Design at Tier 3 of the RTI Model:**

Single-case design methods are based on a hypothesis-testing approach using specific designs to test specific hypotheses (Hunley & McNamara, 2010). Single-case experimental designs are a best practices method for empirically evaluating the effectiveness of interventions for multiple reasons (Polaha & Allen, 1999; Steege, Brown-Chidsey, & Mace, 2002). Objective documentation of student progress and ongoing interventions allow for rapid identification of effective or ineffective elements
which enables the team to modify the intervention as needed (Hunley & McNamara, 2010). Interventions can be readily applied to individuals and small groups. Practitioners are ethically obligated to evaluate the effectiveness of interventions and single-subject experimental designs and legally required to document intervention effectiveness.

Single-case designs may be used for comparing the effectiveness of two or more proposed interventions, to test drive the intervention to determine its treatment potential, and to document student performance. Internal and external validity can be established through single-case designs. Withdrawal, multiple-baseline, and changing-criterion designs provide opportunities for repeated demonstration of a functional relationship between the intervention and the target variable (Barlow & Hensen, 1984). Alternating treatment designs are appropriate for comparing alternative interventions to identify which will result in the most promising outcomes for the individual student.

Advantages to using RTI instead of the traditional discrepancy model to identify learning disabilities include fewer students placed in high-incidence special education categories and fewer evaluations that do not result in either special education classification or improved learning outcomes for students experiencing academic difficulties (OSEP, 2002). RTI can be used to assess whether a student’s lack of achievement is the result of extraneous conditions, such as inadequate instruction or need for additional time and systematic instruction. Through intervention, the student has the opportunity to respond to the intervention, demonstrating that he or she does not have a disability. If the student does not respond to the intervention, the intervention assistance team may proceed with their eligibility determination process with confidence that the
student’s lack of achievement is not due to environmental circumstances (Moore-Brown, Montgomery, Bielinski, & Shubin, 2005).

**Selecting and Implementing Interventions as Part of a Problem Solving Framework:**

Four stages of the problem-solving model for behavioral consultation include: problem identification, problem analysis, plan implementation, and problem evaluation (Bergan & Kratochwill, 1990). The problem identification phase should include a behavioral definition of the problem, the student’s baseline data, and problem validation. The problem analysis stage should include identifying relevant known information, identifying relevant unknown information, generating and testing hypotheses or making a prediction, and linking assessment data to the intervention design (Hunley & McNamara, 2010; Upah & Tilly, 2002). The plan implementation stage includes goal setting, intervention plan development, measurement strategy, and a decision making plan. Problem evaluation consists of progress monitoring and formative evaluation, monitoring treatment integrity, and summative evaluation of the intervention.

High levels of intervention adherence and treatment integrity are vital for enhancing student outcomes. Professional actions that can enhance these key components include choosing “high probability interventions” and implementing them in ways that encourage intervention fidelity (Telzrow & Beebe, 2002, p. 503). High probability interventions focus on keystone behaviors, have empirical support, and possess characteristics that give them high levels of treatment acceptability. Treatment acceptability and integrity are influenced by ease of implementation, perceived effectiveness, and consistency with the intervention setting. Contextual factors that should be considered include child and staff characteristics, features of the intervention
and the treatment setting, resources required for treatment and their availability, consistency between interventionist’s training and treatment demands, and ways that the child’s characteristics might be related to intervention acceptability and treatment integrity (Dietrich, 1999). Telzrow and Beebe (2002) identify several factors that can enhance intervention integrity: use of intervention scripts and treatment manuals, opportunities for guided practice and feedback, and treatment integrity checks and intervention monitoring.

**Challenges to RTI Implementation:**

Reschly (2004) identifies a core assumption of RTI: Students’ needs will be met when educators use an empirically validated problem-solving process that leads to the appropriate selection of evidence-based interventions (EBI) to meet the needs of low-achieving students. However, implementation of EBIs in real-world settings has been complicated by several challenges. Interventions that have been developed in research settings, where it is possible to control all other variables, may not be found to be effective or evidence based in the natural environment (Burns & Hoagwood, 2002). Schoenwald and Hoagwood (2001) identify six areas in which research and practice settings may differ: (a) intervention characteristics, (b) practitioner characteristics, (c) client characteristics, (d) service delivery characteristics, (e) organizational characteristics, and (f) service system mandates. Intervention integrity becomes an issue when educators, used to lenient methods of implementation, may not comprehend or implement the more demanding procedures of data-based problem identification and charting necessary for a valid evaluation of intervention effectiveness. Dissemination, or sustainability of interventions in the natural environment, requires comprehensive
training (Knoff & Batsch, 1995), participatory action and collaboration (Nastasi, 1998),
and supervision and monitoring (McDougal, Clonan, & Martens, 2000). Successful RTI
implementation requires that school personnel learn skills including curriculum-based
assessment, assessment for intervention, and intervention evaluation, and then
“conceptually integrate each of these discrete skills within a superordinate explanatory
framework” (Knotek, 2007, p.57). Classroom teachers are not usually trained to design
and implement interventions for students within a problem-solving model.

The intent of this study is to contribute to the research which focuses on
understanding obstacles to RTI implementation. In particular, it investigates whether or
not RTI is being implemented, particularly at Tier 3 for the purpose of disability
determinations to determine differences between the districts that are successfully
implementing it and those that are not. The emphasis is on reasons why the case study
model is being used in some districts but not others to identify students for special
education. Finally, by analyzing the data for patterns, the primary investigator will
attempt to identify what obstacles are preventing some districts from fully implementing
and utilizing RTI data.

**Qualitative Research:**

The primary purpose of qualitative research is the creation or testing of theory and
making contributions to a knowledge base. The goal is to develop an understanding of
how the world operates and to investigate “a phenomenon to get at the nature of reality
with regard to that phenomenon” (Patton, 2002, p.215). Basic research aims to generate
new theories or test those already in existence, with the intent of generalizing the
theoretical constructs and propositions developed across time and space.
Qualitative inquiry is particularly useful as a basis of grounded theory, or theory that is generated through real-world observations and interviews (Patton, 2002). Qualitative methods allow in-depth and detailed study of issues. The depth, openness, and detail of qualitative inquiry arise from the ability to approach fieldwork uninhibited by fixed categories of analysis. In qualitative inquiry, the researcher is the instrument and data are gathered in one or more of three ways: (1) interviews utilizing open-ended questions in an effort to acquire in-depth knowledge about the experiences, perceptions, opinions, feelings, and knowledge of participants; (2) observations consisting of fieldwork descriptions of participants’ activities, behaviors, actions, interpersonal interactions, and organizational or community processes that are part of observable human experiences; and (3) analysis of written materials and other documents from organizational, clinical, or program records, memoranda and correspondence, official publications and reports, personal diaries, and open-ended written survey responses.

Grounded theory emphasizes the process of theory creation as opposed to a specific theoretical framework (Patton, 2002). Its purpose is to build theory rather than test it. Steps and procedures for using constant comparative analysis to link induction and deduction, comparing research locations, selecting theoretical samples, and assessing emerging concepts with supplementary fieldwork are fundamental to grounded theory. Grounded theory relies on methods that draw the researcher into and near to the real world in order for results and findings to be grounded in empiricism (Patton, 2002). Strauss and Corbin (1998) describe analysis as the relationship between researchers and data, with grounded theory offering a set of coding procedures for providing standardized and rigorous data analysis. Thus, the purpose of grounded theory is to supply analytical
tools for researchers to handle large amounts of raw data, and to help qualitative analysts consider alternate explanations of phenomena, while concurrently being systematic and creative. Grounded theorists seek to explain the concepts that are the “building blocks” of theory (Strauss & Corbin, 1998, p.13).

**Rationale and Methods for Qualitative Research:**

Qualitative case studies provide a way to capture and report individual student outcomes. If program implementation is subject to adaptation by local education agencies, then methods used to study implementation should be “open-ended, discovery oriented,” and able to describe program evolution (Patton, 2002, p.162). Qualitative methods are ideal for describing this type of program implementation. Unsuccessfully monitoring and describing program implementation yields “useless standardized, quantitative measures” of program effects (Patton, 2002, p.162). Qualitative descriptions allow the researcher to document meaningful, unexpected program variations and characteristics (Patton, 2002).

By gathering responses to open-ended questions, the researcher is able to understand and capture the perspectives of others without predetermining those perspectives through a limited set of question and answer choices (Patton, 2002). In qualitative research, in order for the data to be “trustworthy” (Lincoln & Guba, 1985), the researcher must strive to see the empirical social world as it actually exists, rather than as the researcher imagines it (Filstead, 1970). This perspective supports the use of qualitative approaches including fieldwork observations, in-depth interviews, detailed descriptions, and case studies.
CHAPTER III

METHODS

Research Question:

This study investigated whether or not school districts that employ school psychologists who have been trained to use the RTI model are currently using RTI practices in order to identify students in need of intervention or as part of the disability determination process. Specifically, the use of Tier 3 case studies as part of the disability determination process was explored. In districts where Tier 3 case studies were conducted, the researcher attempted to identify the factors that support their implementation through individual interviews. In districts where Tier 3 case studies were not being done, the researcher attempted to identify the possible explanations for what could be preventing their implementation.

Research Design:

A qualitative research design was used to understand and explain the possible reasons for implementation or lack of implementation of Tier 3 case studies in schools. First, interviewees completed a demographics questionnaire identifying educational background and experience with RTI methods. Interviews were then conducted with school-based practitioners to identify the factors that support RTI implementation or
perceived obstacles to implementation. The goal of the present study was to generate and/or contribute to existing theory regarding Tier 3 RTI implementation in schools where the school psychologist has received training in RTI practices.

**Participants:**

Theoretical sampling was appropriate for the present study because its goal was to “explore the dimensional range or varied conditions along which the properties of concepts vary” (Strauss & Corbin, 1998, 73). A sample of 24 recent graduates of the school psychology programs at the University of Dayton, University of Cincinnati, Miami University, and Cleveland State University was selected to participate in the present study. These participants were selected from the larger sample of approximately 100 graduates of the four programs over a three year period from 2007 to 2009. The programs at these four universities are NASP (National Association of School Psychologists) approved and emphasize the importance of using RTI. During internship, all participants were required to demonstrate competence in six key domains outlined by an Inter-University Council (IUC) comprised of faculty from all Ohio school psychology programs, as well as representatives from the Ohio Department of Education (ODE) and the Ohio School Psychologists Association (OSPA). Morrison, Graden, and Barnett (2009) conducted an evaluation of interns’ mastery of key domains based on supervisor ratings. Domains evaluated included: (a) use of assessment in a problem-solving context, (b) knowledge and skill in consultative problem-solving skills, (c) use of empirically based academic intervention strategies, (d) use of empirically based behavioral intervention strategies, (e) use of data to monitor progress, and (f) competency in conducting professional development activities. Based on analysis of supervisor ratings
over three years of aggregated data (2004-2005, 2005-2006, and 2006-2007), interns demonstrated an increase in professional competences in all six domains upon internship completion (Morrison et al., 2009). Thus the participants selected have all received extensive training in RTI implementation.

Participants’ names and contact information were provided by the school psychology department at their respective universities. Department chairs were contacted by e-mail requesting current contact information for 2007-2009 graduates of the school psychology program. Informed consent was obtained for all participating school psychologists. Informed consent forms (see Appendix A) were e-mailed to the participants and were returned to the investigator via fax or mail. Upon agreeing to participate, participants were e-mailed a questionnaire to identify demographic information. No personally identifiable information, including participants’ names and places of employment, was disclosed in any section of the report.

Of the 24 participants, eleven were graduates of the University of Dayton. Three were graduates of Miami University. Seven graduated from the University of Cincinnati. Three graduated from Cleveland State University. All participants had graduated from their respective programs between 2007 and 2009.

Participants represented 20 different school districts, with ten representing urban districts, nine representing suburban districts, and five representing rural districts. The districts ranged greatly in size: seven participants worked in districts with 3,000 or fewer students; six participants worked in districts with 3,001 to 6,000 students; two participants worked in districts with 6,001 to 9,000 students; three participants worked in districts with 9,001 to 12,000 students; and six participants worked in districts with over
12,000 students. The participants served a variety of grade levels, with four of the participants serving preschool, 16 participants serving elementary grades, eight serving middle school, and eight at the high school level. Eleven participants reported that their districts employ between one and four psychologists. Four participants reported that their districts employ between five and eight psychologists. Nine participants reported that their districts employ nine or more psychologists. Individual caseload sizes varied across the participants, with nine participants reporting that their caseload was less than 1,000 students, twelve with caseloads between 1,000 and 1,500, two with caseloads ranging from 1,501 to 2,000, and one with a caseload over 2,000 students.

Instrument:

A demographics questionnaire (see Appendix C) was completed by participants to obtain relevant background information as it pertains to the study. The questionnaire included questions regarding participants’ familiarity with response to intervention.

An interview guide (see Appendix B) was created by the primary investigator. The guide includes standardized open-ended interview questions. Questions focused on understanding the values and opinions of interviewees. The interview guide included the topics to be discussed. Standardized open-ended questions were included to facilitate analysis of responses. Questions pertaining to general implementation of RTI practices were generated using the three-tiered RTI framework. Questions specifically addressing Tier 3 single case designs were generated using the problem-solving model. Pilot testing was not conducted.
Data Collection

A demographics questionnaire was used to screen participants in order to ensure that the sample is composed of individuals who are trained in RTI procedures. Averages of participants’ ratings regarding training and familiarity with RTI were calculated. Data were collected through individual interviews with each participant by telephone or questionnaires completed via e-mail between October of 2009 and March of 2010. During telephone interviews, the researcher transcribed interviewee responses during the interview by typing verbatim responses into the interview document. Follow-up questions were e-mailed to participants to clarify responses that did not fit into any of the categories developed through inductive content analysis. Following data collection, a summary of the themes identified by participants was e-mailed to all participants. Participants were requested to respond to whether or not they felt their ideas were reflected in the results of the study.

Data Analysis:

Interview responses were analyzed for content patterns and themes. Inductive analysis was used to identify themes, patterns, and categories. After themes, patterns, and categories were established, deductive analysis was used to affirm the authenticity and appropriateness of the inductive analysis, which included careful examination of cases that do not fit the categories developed. Through deductive analysis, theory propositions were developed. To increase trustworthiness of the data during phone interviews, the interviewer typed responses verbatim and clarified responses by repeating responses to the interviewee to ensure accuracy. For participants completing e-mail questionnaires, the interviewer read responses and contacted participants for clarification of responses when
responses were unclear. Average length of e-mail correspondence was three to four e-mails.
CHAPTER IV
RESULTS AND DISCUSSION

The results of this study are organized by interview topics, which included: participants’ RTI training; roles and responsibilities of school psychologists at each tier of the RTI model; district procedures for each intervention tier; and procedures for ensuring treatment integrity and case study fidelity. This section concludes with a discussion of perceived obstacles and supporting factors surrounding RTI implementation, with a focus on Tier 3 of the model.

RTI Training:

To ensure that all psychologists received similar training in using response to intervention procedures, participants responded to three questions on the demographics questionnaire using a Likert scale (1 = “not at all”; 5 = “very much”). On the first item, “My graduate coursework emphasized using response to intervention (RTI) practices for identifying students in need of additional intervention,” the average rating was 4.58, with scores ranging from three to five. On the second item, “I feel comfortable using RTI procedures for identifying students for special education,” the average rating was 4.08, with scores ranging from three to five. On the third item, “My graduate program strongly emphasized the use of RTI to assess students,” the average rating was 4.75, with scores ranging from four to five.
When asked at what tiers their districts were currently using any form of RTI, all participants reported that their districts implement RTI at Tier 1, 20 out of 24 reported that their districts use RTI at Tier 2, and 19 reported that their districts use RTI at Tier 3. Based on responses, all participants had been trained to implement and follow the RTI model for the purpose of identifying students needing intervention. Also, they had been trained to use RTI data to support special education eligibility decisions. In general, school psychologists who were involved at Tiers 1 and 2 reported that RTI was still in the beginning stages in their districts.

**RTI Roles and Responsibilities:**

Districts seem to have different expectations for School Psychologists and their use of the three tiers of RTI. School psychologists in this study were most likely to participate in Tier 2 interventions, however, evidence of participation in both of the other levels did emerge from the study. One psychologist who was involved at Tier 1 reported that it is the responsibility of the school psychologist to help the district move toward RTI, and indicated that “lots of staff members have no training and most teachers do not understand how RTI works.”

Over half of the participants reported that they were involved from the time there is an initial concern or when a student is referred for Tier 2 interventions. Only six participants reported that they became involved at an individual problem solving level, which includes Tier 3 intervention or Intervention Assistance Team (IAT) meetings. When asked to describe their roles and responsibilities in the evaluation and identification process, nine reported that their districts were using the IAT approach to serving students, in which students were referred to the IAT when they experienced academic and/or
behavioral difficulties. All of the psychologists who became involved at Tier 3 were in districts that were using the IAT approach for identifying students needing additional support. This suggests that the psychologists who were in districts using the RTI model were becoming involved at earlier stages, when students were first beginning to struggle. Over half of them were members of the problem-solving team from when there was an initial concern with a student. They had been consulting with teachers to help select appropriate interventions that addressed the target problem.

**Tier 1:**

Although few school psychologists in the study reported involvement in Tier 1 of the RTI process, over half reported that universal screening procedures were in place throughout their districts and these screeners were being used to identify students who were at-risk and in need of additional intervention. This suggests that RTI efforts have been spearheaded by other professionals, including building principals and district administrators. Teachers were responsible for collecting data and using the data to select students for intervention. For example, students who fell below a certain percentile, which varies by district, on universal screeners were given extra support. Participants in districts implementing universal screening procedures stated that, “groups are flexible based on progress,” and “progress monitoring allows students to move between tiers.”

However, there are variations of Tier 1 that may compromise the integrity of the RTI process. For example, of those participants who reported using universal screening, several reported that their districts collected universal screening of students, but did not use the data collected to establish local norms or identify students for intervention. “Teachers are supposed to use the data from DIBELS and begin to intervene with those
kids that are at risk.” However, one participant reported that, “most teachers do nothing with that data.” Another stated that students are identified as “at-risk” based on “who receives Title 1 services.”

When asked about Tier 1 instruction in reading and math, participants reported wide variation in reading curricula being used by their districts: Fountas and Pinnell, Guided Reading, Houghton Mifflin; Success for All ®; Accelerated Reader; Scott Foresman; Scholastic Literacy Place; Choice Literacy; Reading First; MacMillian/McGraw-Hill; Harcourt; Voyager; Reader’s Journey; and Reading Mastery (McGraw-Hill/SRA). Five reported that their districts had not adopted a core reading curriculum. One reported no standard reading curriculum for grades four and up. Math Curricula being used by the different districts include: Everyday Math; Investigations; Houghton Mifflin; CMP2 Connect Math Series; Saxxon; McDougal-Littell; Harcourt; MacMillian/McGraw-Hill; Scott Foresman—Addison Wesley; Glencoe; and Envisions. Three reported that their districts had not adopted a core curriculum for mathematics.

Though not the norm, a very specific description of the decision rules for identifying students in need of intervention was offered for one district. These rules were: students who fell behind according to universal screening data received extra support; students below the 50th percentile on AimsWeb assessments received support. The classroom teacher delivered intervention to the students who scored between the 25th and 50th percentile during an intervention time period. Students who scored below the 25th percentile were placed in a Tier 2 or Tier 3 reading group. Students who scored below the 10th percentile received support at Tier 3. School psychologists in districts and/or buildings where universal screening was not done or was not used for identifying
students for intervention, reported that teacher referral was the primary means for identifying students for intervention. Under these circumstances, students referred were frequently those exhibiting behavior problems or students who were low in all academic areas.

**Tier 2:**

When asked about the Tier 2 reading and math interventions being used by their districts, participants reported a wide variety of Tier 2 interventions for reading and math, including: Title 1, Read 180, REWARDS (phonics); Reading Recovery, Read Naturally, Cover Copy Compare, Folding-in, graphic organizers, 95% Group, math coach, CLIP program, Orton-Gillingham, repeated readings, paired readings, Peer Assisted Learning Strategies (PALS) ©, Corrective Reading, Sound Partners, Fundations, Soar to Success, Reading First, Wilson Reading, Study Island, Touch Math, interventions tied to the core curriculums, and interventions from www.interventioncentral.org. One psychologist reported that the district was in the process of selecting interventions to use for Tier 2. Three reported that Tier 2 interventions were selected by teachers and were not standardized throughout the district.

Although a review of the research supporting each of the previously mentioned curricula and interventions is beyond the scope of the present study, the What Works Clearinghouse (WWC) has evaluated the research on several reading and math curricula and interventions. For general reading achievement in kindergarten through third grade, Reading Recovery has been shown to have positive effects on reading achievement. Accelerated Reader, Classwide Peer Tutoring, and Success for All have been found to
have potentially positive effects. For adolescent literacy, Read 180 and Successmaker® have both been found to have potentially positive effects on achievement.

For elementary mathematics achievement, Everyday Mathematics has been found to have potentially positive effects. Scott Foresman-Addison Wesley Elementary Mathematics has been found to have no discernable effects on achievement. For middle school mathematics achievement, Saxon Math has been found to have mixed effects. The Connected Mathematics Project (CMP) has been found to have no discernable effects.

**Tier 3:**

When asked about their district’s procedures for evaluating students for special education services under the category Specific Learning Disability, participants who conduct Tier 3 case studies (with intervention integrity and fidelity to the case study process) were more likely to make eligibility decisions based solely on RTI data than participants who were in districts where the process was less formal. Almost all participants reported that case studies were being conducted in their districts, with approximately half of these reporting that the case studies were being conducted with integrity and fidelity. The other half reported that, although case studies were being conducted, the process was less formal for various reasons (programs not being research-based, inconsistent implementation throughout the district). When case studies were conducted, the psychologists were more likely to use RTI data alone for determining eligibility for special education. In districts with less formal processes, psychologists were more likely to use a combination of RTI data and traditional standardized tests. Several reported that different approaches were being used in different buildings within the same district, with RTI being more frequently implemented at the elementary level.
than at the middle or high school level. One factor that was consistent across districts where Tier 3 case studies were being conducted: Universal screening procedures were almost always in place. One psychologist reported that despite having implemented procedures for collecting at least three baseline data points and having implemented interventions for at least four weeks, “this rule can and has been over ruled on occasion by the principal,” making it difficult to use intervention data for eligibility decisions.

In districts where some components of single case designs were in place, although the integrity of implementation was less consistent, several factors were identified as contributors to these inconsistencies: interventions not implemented with integrity, interventions used did not have a strong research base; lack of time; and inconsistent or inadequate progress monitoring.

Tier 3 case studies served diverse purposes in different districts. Purposes reported by the participants who conducted them included: guide instruction and/or development of an appropriate intervention plan, as part of the referral process, or for determining eligibility for special education. (Several psychologists reported that Tier 3 case studies served multiple purposes). When used as part of the referral process, participants reported that when the student continued to display inadequate progress, the psychologist conducted a full evaluation, which included standardized, norm-referenced assessment instruments. Frequently, when Tier 3 case studies were conducted with integrity and fidelity, the data collected through the case study process was sufficient to determine eligibility for special education, with no further testing required.
**Intervention Integrity:**

When treatment integrity was monitored, the majority of participants reported that the responsibility fell on the school psychologist. Of the participants who reported that treatment integrity was assessed, the vast majority stated that they were directly involved in the process. Procedures used to assess treatment integrity included: teacher checklists, checking in with teachers, tutor logs, collecting data from teachers, intervention implemented and checklists completed by the school psychologist, and observations. Several reported that treatment integrity was monitored, but not as carefully as they would like it monitored. Procedures in these districts included providing teacher training and filling out logs to verify that students were receiving the intervention. Reasons reported for lack of monitoring in districts where treatment integrity was not assessed included: “the large size of the school and the number of concerns that exist;” “teachers not using scripted interventions;” “teachers see it as being evaluated;” “not having anyone to do the checks;” and “teachers just saying what they have tried when they come to the meetings.”

**Case Study Fidelity**

Participants were asked to describe how the case study process was adhered to in their districts. They were asked to describe how they establish local norms, identify and analyze the problem, test hypotheses, select and implement interventions, and evaluate intervention effectiveness and provide recommendations.

The majority of participants reported that their districts used curriculum-based assessments for establishing local norms. However, in some of these districts, local norms were only established in certain buildings within the district, primarily at the
elementary level. Assessments used to establish local norms included DIBELS, AimsWeb, and Acuity (McGraw-Hill, 2009). A few participants reported that national norms were used (AimsWeb or DIBELS). One Still, several participants reported that local norms were not established in their districts at any grade level.

When data were collected in Tier 2, the majority of participants reported that problem identification and analysis were conducted on individual students as part of Tier 3 prior to implementing interventions. This suggests, when Tier 2 was strong, fidelity to the problem-solving process was high. However, procedures for this stage of problem solving varied widely by district. Teams may be organized by building or grade level. When organized by building, participants usually included the building principal, school psychologist, intervention specialist, and teachers from different subject areas. One participant in a district where problem analysis was conducted reported that “it is easy to see what the problem is when data has been collected.” Another participant in a district where problem analysis was not conducted reported that the teachers usually started trying interventions before identifying the problem. In this district, students were identified using the IAT model, where teachers tried interventions on their own before the student was referred to the problem-solving team. The psychologist was not involved until the team made the decision to evaluate the student.

Although more than half of participants reported that hypotheses to determine the cause of the student’s problem were identified prior to implementing interventions, many reported that this step was not addressed. Sometimes it happened after the fact, “if the teacher came back and said something wasn’t working, and what else can we try?” Another psychologist reported that the team didn’t “focus on this.” Instead they “jump to
what they are going to do.” When hypothesis testing was conducted, the team focused on identifying whether the deficit was performance or skill-based. “You alter certain things in the classroom to figure out what is causing the problem. Try some behavioral interventions to see if academics improve, change environmental variables to test it out and collect behavior or academic data. Observe the student and talk to the teacher to get down to the specifics of why the kid is struggling.”

Although the majority of participants reported that interventions implemented were research-based and addressed the student’s presenting problem, several reported that was not the case. In districts where interventions were research-based and matched the student’s problem, interventions were selected from various sources, including, the intervention component of the district’s purchased curriculum, the National Association of School Psychologists, the Ohio School Psychologists Association, or Intervention Central. When the intervention stage was not appropriately addressed, it was usually due to one of several factors: the interventions selected did “not directly address the problem;” for some teachers, the intervention phase meant “changing a child’s sitting place to the front of the class or providing one-on-one attention;” or interventions implemented were “mostly modifications and accommodations,” and were “not tied to specific progress monitoring tools.”

Few participants reported that there were clear decision rules in place for using intervention data to determine eligibility for special education services. Several others reported that they recommended an evaluation if the student was failing to make progress or when the supports a student was receiving began to “look like special education.”
Participants were contacted to respond to a follow-up question regarding how data analysis was used to evaluate intervention effectiveness. Of the 24 participants, 14 responded to the follow-up questions. Responses to this question indicated that data analysis was not widely used for evaluating intervention effectiveness, resulting in a great deal of subjectivity when evaluating effectiveness. Of these participants, none reported using percentage of nonoverlapping data points or goal attainment scaling to evaluate intervention effectiveness. Methods used included effect size, rate of improvement calculations, student grades, and change in median scores on curriculum based assessments for the various groups by grade level compared to the same group of students the previous year.

Participants were also asked how fidelity to the case study process is monitored. In cases where data was used to support adherence to the case study process, before referring a student for evaluation, teachers must have data that demonstrated a lack of progress. When faced with parents requesting an evaluation, all participants reported they were usually able to use consultative skills to explain the process to parents, and that parents were usually satisfied when they were aware of the interventions the child was receiving. Strong administrative support for the RTI process, as well as forms for monitoring fidelity were identified as factors supporting case study fidelity. In districts with administrative support, building principals and district administrators made sure that the teachers were collecting data and supported the school psychologists in their decisions about whether or not to evaluate a student.

Due to the wide variation in responses to the previous question, participants were contacted to respond to a follow-up question regarding forms used during problem-
solving meetings on individual students to ensure that the team adheres to the case study process. Of the 14 participants who responded to the follow-up questions, the majority reported that their districts had a problem-solving form to fill out at team meetings or were working on developing a form. However, having forms available did not mean that they were filled out correctly 100% of the time. When forms are available, many reported that the psychologist was the only one who typically filled it out at team meetings. When the psychologist was not at a meeting, then the form wasn’t typically filled out. In response to this, one of the participants was developing a form that was more “teacher-friendly” so anyone who was participating on the team would be comfortable completing it. Reasons identified for the lack of form completion included: staff not being trained to fill them out, forms not appropriate for multi-faceted problems, and the team spending too much time “admiring the problem” at the meetings.

**Obstacles and Supporting Factors**

Participants were asked to describe perceived obstacles to successful implementation of RTI, and specifically, obstacles to implementing Tier 3 case studies. They were also asked to identify factors they perceived as supporting implementation. The most frequently identified obstacles/supporting factors included: administrator support, teacher support, professional development/training for teachers, procedures in place (for movement between tiers, having interventions available, universal screening and progress monitoring), and logistical factors (time, money, personnel).

Over half of participants identified administrator support, especially support from building principals, as an obstacle to successful RTI implementation. When asked about factors supporting RTI implementation, the majority of participants also identified
administrator support as crucial in supporting successful implementation in their districts. One psychologist stated, “RTI is a systems approach. One person can’t do all of it and it is a process.” In order for administrators to support it, they need to understand the process, as reported by several participants. In districts where the principal wasn’t supportive, there was a lack of teacher support. In one of these districts, where a building principal wasn’t a “huge fan of DIBELS,” the “teachers weren’t as supportive of it because they weren’t getting support from the administrator.” In a district where the principal was supportive, the psychologist reported that, “the principal will intervene if interventions aren’t being done with integrity.” One psychologist cited the importance of the “team” relationship between the principal and school psychologist. Another claimed that the “administrator has to be behind the whole data collection process and ensure that staff is trained and knows the importance of good and valuable data. They have to believe that the system is beneficial for students.”

A majority also cited teacher resistance and/or a lack of support as an obstacle. In these instances, the teachers were often impatient and did not want to wait to see the results of an intervention before moving to an evaluation. One psychologist reported that the biggest obstacle witnessed was “when a teacher is resistant to doing a specific intervention or trying something new, it is hard to explain that we have to try something different and get her buy-in.” This becomes a challenge when the suggested intervention doesn’t match the teacher’s reading philosophy. Another reported that challenges arose when teachers did not understand behavioral principles. One reported, “teachers still have the mindset that it is within-child” (the problem).
Many reported a lack of training and/or professional development for teachers as an obstacle. One specifically stated that there was a “lack of education about RTI in education programs for teachers.” Another claimed that this was a “huge shift for teachers to switch to think about basic skills. We need to change how we educate teachers and get them able to use the data and recognize that there is more that is important than just passing grades or OAT scores.” Another claimed that there “needs to be training for teachers and staff that focuses on curriculum based measurement.” Another reported, “Teachers need to do more differentiated instruction and flexible grouping across grade levels. Kids need to start practicing reading where they are, but teachers teach to the standards and don’t understand how to teach the standards but still teach the kids.” Lack of treatment integrity, an obstacle identified by one psychologist, appeared to be related to the lack of professional development. With a lack of training, teachers are ill-equipped to select appropriate progress monitoring tools. Without training, teachers were unlikely to understand the importance of treatment integrity and use appropriate assessments for measuring student progress.

A lack of procedures in place at a systems level was frequently identified as an obstacle. “RTI only works if it is a district decision, built on the premise that Tier 1 is strong,” as stated by one psychologist. Procedural components identified by participants that were needed for successful RTI implementation included: a research-based core curriculum, universal screening data, tools for progress monitoring, and research-based interventions. Several procedural aspects identified by participants that supported RTI implementation included: having a manual for teachers to use, having decision rules for identifying students in need of intervention, uniformity throughout the district, having
intervention time built into the school day, and having interventions built into the core curriculum.

Lack of resources was identified as an obstacle by half of participants. Resources identified included materials, money, time, and personnel. Specifically, funding was identified as necessary to pay for materials and personnel. Time constraints included scheduling conflicts, lack of common planning time for teachers to collaborate, not enough time in the school day to implement interventions, and not enough time for the psychologist to conduct case studies due to competing job demands.

Limitations

The present study was limited by the time frame during which it took place. Interviews took place over a 5 month period of time, which may have affected participants’ responses based on their districts’ status of RTI implementation at the time of the interview. Another limitation of the study may have been subject bias. It was impossible to fully describe the training that each participant received due to variations in programs. Even though no individual participant or school district names were disclosed in the study, participants also may have responded in certain ways in order to portray their graduate programs or school districts in certain ways. Additionally, because the primary investigator was a student at the University of Dayton, several participants were former classmates of the interviewer.

The sample consisted of 24 school psychologists with similar educational backgrounds who were all relatively new to the field. Additional qualitative studies of this nature in other states and utilizing larger samples may allow for greater generalization of findings. Additionally, because participation in the study was voluntary,
the views reported represent only a fraction of the larger sample from which the participants were selected.

Another limitation was the number of participants that responded to the e-mail that was sent summarizing the results of the study. Although all participants were contacted, over half of the e-mail addresses were no longer active and only one participant responded, who confirmed that the ideas summarized did reflect this participant’s views.
When analyzing interviewee responses for content, many themes were identified. Although all participants in the present study had received substantial training in RTI practices and procedures, different school districts were at different stages in the implementation process. RTI seemed to be more frequently implemented at the elementary level than at the middle or high school level. Many participants reported that they were not satisfied with the current level of RTI implementation in their districts, and they were taking steps to advance implementation. Waiting until Tier 3 before involving the school psychologist in cases appears to reflect a lack of structure in the district. When left to make intervention decisions on their own, teachers tended to view “accommodation” and “intervention” synonymously, as described by one participant. In many districts, the cause of students’ problems was not explored prior to selecting and implementing interventions, thus limiting the reliability and validity of hypothesis testing as part of the problem solving process. Universal screening procedures, although necessary, were not sufficient when data were not used to make intervention decisions. Having decision rules in place for identifying students for intervention was important. Treatment integrity was a barrier to monitoring intervention implementation. In districts where school psychologists were using a combination of RTI and standardized
assessment data to make eligibility decisions, districts may want to examine the efficacy of using both procedures as part of the evaluation process.

Data calculations and analysis for Tier 3 case studies, although a major emphasis of graduate coursework tended to be less emphasized in practice. Forms outlining the problem solving process, when available, were not consistently filled out properly when the school psychologist was not present at the meetings. Teachers and administrators needed to be trained to use universal screening data to make decisions, to follow the steps of the problem-solving process when designing intervention plans for students, and to select appropriate data collection methods to monitor student progress. In order for administrators to take on a leadership role, they must also understand the process and how to effectively implement it.

The primary obstacles to implementation identified by the majority of participants included: administrator support, teacher support, professional development and training for staff, and needing procedures in place for universal screening and decision making. School psychologists who have been trained to follow an RTI model are in an ideal position to facilitate staff training in RTI procedures. They can work with building administrators to select interventions and implement statistical procedures to evaluate intervention effectiveness. School psychologists can participate in team meetings at all three Tiers of the RTI model.

Although beyond the scope of the present study, there are many interventions and core curricula for which there are no published evaluations. Current research regarding published curricula and interventions must be available to those involved in selecting them. During interviews, it was suggested that there is a lack of RTI instruction in teacher
and administrator training programs. Universities may wish to review the emphasis that is placed on RTI in training programs for teachers and administrators to ensure that both teachers and administrators have a sound foundation in RTI practices upon entering the educational environment. Current teachers and administrators would benefit from ongoing professional development opportunities geared toward RTI implementation in schools.
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APPENDIX A

INFORMED CONSENT TO PARTICIPATE AS A RESEARCH SUBJECT

**Project Title:** Using Single Case Design as part of a Response to Intervention Framework: Current challenges to implementation.

**Investigator:** Tracy Mayne; M.S. Ed.

**Purpose of Research:** This research is investigating:

1. Whether or not case studies are being implemented in school settings as part of the Response to Intervention framework; and
2. Why single case designs are or are not being implemented as part of the disability determination process.

**Expected Duration of Study:** This research should take approximately 1-2 hours for you to complete.

**Procedure:** You will be given a questionnaire to complete regarding your educational background and familiarity with Response to Intervention practices. For the study, you will be asked questions regarding your perception of how response to intervention is being implemented in your district. You will be asked to give your honest opinions and your specific answers will not be shared with anyone else. Your responses will remain anonymous and no information will be given in the report that would allow anyone to personally identify your responses. The interview will be taking place preferably in person. However, if that is not possible, interviews may be conducted over the telephone.

**Alternative Procedures:** No alternative procedures exist in this research project.

**Anticipated Risks and / or Discomfort:** The nature of the questions may require you to take time to think about your responses.

**Benefits to the Participant:** By participating in this research, you will be helping develop grounded theory regarding the implementation of single case designs as part of a response to intervention framework.
Confidentiality: No records of your participation in this research will be disclosed to others. Your data will be pooled with data from other research participants and only summary results will be made public. Your name will not be revealed in any document resulting from this research. Your data will be recorded anonymously. Only a randomly assigned identification number will be recorded with your data; your name or other identification will not be recorded with the data.

Contact Person for Questions or Problems: If a research-related injury occurs, or if you have questions about the research, contact Tracy Mayne (primary investigator) at 937-572-2353 or Sawyer Hunley (thesis committee chair) at 937-229-3644. Questions about the rights of the subject should be addressed to Jon Nieberding., Chair of the Committee for the Protection of Human Subjects, Kettering Labs Room 542, +0104, 229-4053.

Consent to Participate: I have voluntarily decided to participate in this research project. The investigator named above has adequately answered all questions that I have about this research, the procedures involved, and my participation. I understand that the investigator named above, will be available to answer any questions about experimental procedures throughout this research. I also understand that I may refuse to participate or voluntarily terminate my participation in this research at any time without penalty or loss of benefits to which I am entitled. The investigator may also terminate my participation in this research if she feels this to be in my best interest. In addition, I certify that I am 18 (eighteen) years of age or older.

__________________________________________  ________________
Signature of Subject                          Date

__________________________________________
Signature of Investigator
APPENDIX B
INTERVIEW GUIDE

Topics to be discussed:

1. School psychologist roles and responsibilities in the evaluation and identification process

2. District procedures for identifying and serving at-risk students

3. District procedures for evaluating students for special education services under the category Specific Learning Disability

4. Is Response to Intervention being used to identify students for intervention in your district?
   a. Tier 1 (District’s reading and math curriculum)
      i. What is it?
      ii. What is the research base? (may require additional research by interviewer)
   b. Tier 2 interventions (supplemental instruction or small group interventions)
      i. What are they?
      ii. What is the research base?
   c. Tier 3 individual case studies for determining an individual student’s response to targeted research-based interventions
      i. Are they being implemented?
      ii. How are they used? (Purpose)
      iii. How is treatment integrity assessed?
iv. How is case study process implemented? (problem-solving process) Include your thoughts regarding what you see occurring in your district.

1. Establishing local norms
2. Problem identification and analysis
3. Hypothesis testing
4. Intervention
5. Evaluation and recommendations

v. How is fidelity to the case study process monitored?

vi. What do you consider obstacles to implementing Tier 3 case studies in schools?
APPENDIX C
DEMOGRAPHICS SURVEY

Name
_____________________________________________________________________

Graduate School Psychology Program
___________________________________________

School District
______________________________________________________________

Grade Levels served _________________________

Years of experience ________

Please rate the following statements according to the Likert scale (1 = Not at all to 5 = Very Much):

1. My graduate coursework emphasized using response to intervention (RTI) practices for identifying students in need of additional intervention:
   1  2  3  4  5

2. I feel comfortable using RTI procedures for identifying students for special education:
   1  2  3  4  5

3. My graduate program strongly emphasized the use of RTI to assess students.
   1  2  3  4  5

4. The district I am employed in would be considered (circle one):
   Urban  Suburban  Rural

5. Approximately how many students are on your caseload? ______________

6. What is the approximate size of your school district (number of students)? ______________
7. How many school psychologists are employed by your district?

______________

8. Does your district currently use any form of RTI? (Please check tiers implemented)

_____ Tier 1

_____ Tier 2

_____ Tier 3