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Cherry M. Stanard Ed.S.

Maggie Brown Middle School Alternative Program, cherry.stanard@cowetaschools.org

Ravic P. Ringlaben

Kimberly Griffith Ph. D.

University of West Georgia, kgriffit@westga.edu

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Secondary Teachers' Knowledge of Response to Intervention

Cherry M. Stanard, Ed.S.

Special Education In-School Coordinator

Maggie Brown Middle School Alternative Program

32 Clark Street Newnan, Ga. 30263

Cherry.stanard@cowetaschools.net

Ravic P. Ringlaben, Ed.D.

Special Education Programs

University of West Georgia

Carrollton, GA 30118

rringlab@westga.edu

Kimberly Griffith, Ph. D.

Special Education Programs

University of West Georgia

Carrollton, GA 30118

kgriffit@westga.edu

Abstract

School systems across the United States have been required by federal laws to utilize scientific based interventions and instruction within the classroom to educate all students. Through the use of a multi-tiered model called Response to Intervention (RTI), school systems now have a model to implement the interventions within the environment. The purpose of this study was to investigate secondary teachers' knowledge of RTI within a public school system in the southeastern United States. It is vital that the teachers and specialists who implement RTI be knowledgeable of the multi-tiered model. The teacher's knowledge of RTI can help guide administrators and professional development personnel as they plan for future trainings and implementation of new procedures.

Secondary Teachers' Knowledge of Response to Intervention

Introduction

Since the Education for All Handicapped Children Act of 1975, most educators have relied heavily on the presence of a discrepancy between a student's IQ and the identification of a learning disability. Students were being educated in the general population without proper interventions being implemented to increase academic achievement (Bryant, Compton, Davis, Fuchs, & Fuchs, 2008). The No Child Left behind Act (NCLB) of 2001 changed the way teachers addressed instruction for all students in the public school system. Schools began to place more emphasis on student performance and instruction by using evidence-based interventions (Hoover & Love, 2011). NCLB intended that children can and must perform equally with their peers (Daves & Walker, 2012). With the reauthorization of the Individuals with Disabilities Education Improvement Act (IDEIA) in 2004, all teachers must be highly qualified in content areas that added additional demands on the role of special educators. This change allowed access to curriculum for students with disabilities to be educated in the general population. As schools began to address the needs of students served under special education, they incorporated changes with the emergence of a multitier model called Response to Intervention (RTI) to provide access to the curriculum by addressing the needs of all students who displayed deficits in academic, social, emotional, physical, and behavioral difficulties within the classroom (Hoover & Patton, 2008). RTI is a multi-tiered model that involves scientific research-based interventions, continuous progress monitoring, and screening students for an evaluation for special education to determine eligibility for specific learning disabilities (SLD). It is a series of strategies used to screen students in general education classes, develop instruction through a system or level of tiers, monitor their progress and make data driven decisions about the next step of their educational placement and curriculum needs (Daves & Waler, 2012). RTI was also established to replace the severe discrepancy formula that was originally used to determine special education eligibility for students with SLD. The Individuals with Disabilities Improvement Act (IDEA) permits school districts to use a process that determines if a student responds to research-based interventions prior to special education placement. In 2006, IDEA regulations required states to establish an SLD eligibility criteria

based on if the state prohibits or permits severe discrepancy, RTI, or other alternative research based procedures (Krohn & Zirkel, 2008).

School systems have begun transitioning from the previous pre-referral model to identify students served under special education to an RTI model (Hoover & Love, 2011). RTI was developed because of the concern that a large number of students were being identified for special education services and if the intervention model was implemented appropriately within the general education classroom, the number of students referred to special education services would decrease (Bean & Lillenstein, 2012). Barnes and Harlacher (2008) found that schools were no longer waiting until students were failing to take corrective actions in their academic instruction. Beecher (2011) stated, "RTI represents a more proactive way to identify children who may be at risk for a learning disability because students can receive interventions as soon as screenings show they are not benefiting from instruction" (p. 1). School systems are continuously searching for effective methods to promote learning and increased achievement for all students (Barnes & Harlacher, 2008). RTI is a framework for providing high-quality instruction and intervention matched to students' individual needs, as well as focusing on improving academic outcomes in both general and special education students (Reutebuch, 2008). RTI practices are addressed in NCLB and IDEIA to improve systematic processes and the integration of research based practices within the classroom (Nunn & Jantz, 2009).

Response to Intervention

Hoover and Love (2011) found that all states are in the process of implementing some form of RTI model to meet the educational needs of struggling learners. An estimated 70% of school districts nationally, are implementing RTI to assist all students being served in the public school system. Barnes and Harlacher (2008) discussed that RTI is an innovative approach to service delivery within schools. The term Response to Intervention was derived from how a student responds to an intervention implemented within the classroom to allow access to the curriculum (Hoover & Patton, 2008). RTI is defined as a student achievement pyramid of intervention that is a process of aligning appropriate assessments with direct instruction for all students. Georgia developed a four-tiered RTI model that is based in the general education classroom in which teachers routinely utilize rigorous standards based learning instruction and problem solving techniques (Georgia Department of Education, 2011). Nation-wide, RTI can be

a three or four-tiered approach of providing layered interventions for students needing support. RTI is focused on early intervention with an emphasis of multiple levels of instruction and ongoing progress monitoring in order to make academic and behavioral decisions about the achievement of the at risk learner (Hoover & Patton, 2008). Problem solving occurs at all tiers and teachers are continually using data to drive instructional decision making (Georgia Department of Education, 2011). In the multi-tier learning model, students are provided a continuum of services that increases in intensity based on the severity of the student's needs. With the use of a multi-level pyramid of education, the student's response to instruction serves as the basis for making decisions about instructional needs (Barnes & Harlacher, 2008). RTI can also be defined as the use of assessment data to systematically and efficiently assign resources for the purpose of improving learning for all students (Burns, Parker, Scholin, & Ysseldyke, 2010). Hoover and Patton (2008) discussed that an estimated 80% to 90% of all learners are successful with high-quality core instruction; 15% to 20% are estimated to need targeted supplemental instruction; and 1% to 5% will require intensive or special services through high-quality, intensive intervention. The three or four tier pyramid can be designed from the bottom up to include Tier 1 – Standards-Based Classroom Learning, Tier 2 – Needs-Based Learning, Tier 3 – Student Support Team-Driven Learning, and Tier 4 – Specially-Designed Learning (Georgia Department of Education, 2011).

Tier 1

Tier 1 is implemented in the general education classroom. All students are included in this tier. In the tiered model of RTI, the goal is to improve student outcomes for all students. Within the first tier of the model it is important that students receive high-quality, evidenced-based instruction (Hoover & Patton, 2008). The term evidence-based instruction refers to instruction that has empirical evidence supporting its effectiveness within the classroom instruction. The belief is that by providing good instruction to all students, schools can increase the chances of achieving acceptable levels of student performance and rule out poor instruction as a cause of low performance (Barnes & Harlacher, 2008). Teachers must distinguish the need to adjust the overall comprehensive classroom curriculum or the need to adjust only one specific teaching method in order to implement evidence-based practices that are addressed in the RTI model (Hoover & Love, 2011).

A major component of the RTI model is the use of quantified data to demonstrate progress toward achievement. Data can be gathered by using some type of universal screening instrument (Hoover & Love, 2011). The teacher screens all students at the beginning of the school year to identify those who are potentially at risk of failing (Fuchs, Fuchs, & Stecker, 2010). The Georgia Department of Education (2008) found that universal screening is a general outcome measure used to identify underperforming students. A universal screening does not identify why students are underperforming but it will identify which students are not at the expected performance criteria for a given grade level in reading and mathematics. Universal screenings are used for reading, math, and/or behavior for all students. The scores obtained from the universal screening can help professionals determine if a student needs to be provided intervention within the classroom to access the curriculum.

Tier 1 Assessment and Data

Murawski and Hughes (2009) found that during Tier 1 teachers are encouraged to become action researchers within their classroom. The classroom teachers can use frequent common formative assessments to measure a student's progress and to obtain data on how effective instruction is within the classroom. The teachers can use the data collected from formative assessments and benchmarks to evaluate instructional approaches and design learning opportunities to address a student's individual needs. The data is shared with the students, parents, and other colleagues to drive the instruction in the classroom (Georgia Department of Education, 2008). According to Ysseldyke et al. (2010), tests are helpful tools in making decisions on what content needs to be taught in the classroom. It is important that teachers use the information gathered to respond to student performance and identify areas of focus, use scaffolding, and support new learning behaviors which are vital to student success (Georgia Department of Education, 2008).

Tier 1 Classroom Implementation

There are multiple approaches an educator can implement in the classroom with the knowledge gathered from the screening. Interventions can be implemented to address environmental factors, such as, seating arrangements, flex grouping, lesson pacing, collaborative work, demonstration of learning, differentiation of instruction, as well as, student feedback

(Georgia Department of Education, 2008). A major classroom approach is the use of differentiated instruction that is when the educator tailors the curriculum, teaching environment, and practices to create different and appropriate learning experiences for all students. The content, process, products, and learning environment can be differentiated in order to access the students learning needs. Another area of differentiation within the classroom that can be addressed with the use of assessments by the teacher is flexible grouping (Fuchs, Fuchs, & Stecker, 2010).

Flex grouping is a type of differentiation in which students are organized into groups based on interests and needs. The groups are put together based on instructional levels and the teachers use the data to establish and modify the composition of the student groups (Georgia Department of Education, 2008). Denton, Fletcher, Anthony, and Francis (2006) found that a teacher providing consistently high quality classroom instruction could reduce an estimated percentage of students in the first grade who are at risk of reading problems from 10% to 6%. Murawski and Hughes (2009) found that a typical learner can remain on Tier 1 in the general classroom for his or her entire education and students that are identified through the screening process will move on to Tier 2. Hoover and Love (2011) agreed with Murawski and Hughs findings that between 90% and 95% of all learners are expected to be successfully educated through Tier 1 and Tier 2 instruction.

Tier 2

The second level of layered instruction found on the pyramid of RTI occurs after diagnostic screening has identified the student as at-risk for learning difficulty. Adequate time should be given for the Tier 1 instructional program to be implemented before determining if Tier 2 support is needed. Murawski and Hughes (2009) discussed that once a student falls below the predetermined scale on any designated benchmark, the student is referred to Tier 2. This tier provides specific intensive instruction in addition to what is being provided in the general education classroom. It is estimated that 15% to 25% of students within the general population require services on Tier 2 with as little as 7% in some areas. Hoover and Patton (2008) found that students who do not meet general class expectations and exhibit a need for supplemental support receive more targeted instruction through Tier 2. The students identified receive targeted Tier 2 instruction in the general education classroom or in other settings, such as, pull out

situations. Tier 2 contains supplemental instruction and progress monitoring to determine if the interventions implemented are allowing the student access to the curriculum (Fuchs, Fuchs, & Stecker, 2010). The Georgia Department of Education (2008) defined Tier 2 as the process of when students are identified with learning deficits and require regular assessments to measure his or her understanding and transfer of learning from the general education classroom. Teachers identify student needs and target skills by providing interventions. Students may move between Tier 1 and Tier 2 based on the student's response to the intervention provided. Teachers use supplemental instruction in Tier 2 that could be 30 minutes of additional instruction in the area that the student is struggling in (Barnes & Harlacher, 2008). Denton et al. (2006) indicated intensive intervention could dramatically affect the skills of students.

Tier 2 Classroom Intervention

The students identified as at risk are monitored for 5 to 8 weeks as teachers use evidence based interventions in the general education classrooms (Fuchs, Fuchs, & Stecker, 2010). The interventions are implemented in a specific sequence based on the resources provided by the school. An example of an intervention utilized within the Georgia public school system at this level is providing students a reading intervention class during his or her connection time. During the additional reading intervention time, the teacher will use specific research-based practices to address the group's deficit areas. The teacher must continue to implement the performance standards provided by their state, grade level expectations in the content, and transfer the learning of the classroom to their instruction (Georgia Department of Education, 2008). The interventions utilized within Tier 2 are short term and can be provided through collaboration between the regular education teacher and the specialist that is providing the outside intervention. Most specialists are often a general education reading specialist, coach, or instructor who is able to work with the child intensely on the deficit area (Murawski & Hughes, 2009).

There are additional approaches a teacher can target within Tier 2 such as re-teaching and practice of specific behaviors like waiting for a turn, walking quietly in the halls, and riding the bus. Interventions are also implemented during this tier that address development of appropriate social skills like asking for help, responding to negative comments from others, and making

friends. Teachers also re-teach and provide additional practice for students to learn how to follow school procedures like getting to class on time, following cafeteria rules, and appropriate behavior in the media center. The interventions that are implemented to provide additional support for behaviors are derived from the Positive Behavior and Intervention Supports (PBIS) Program that can be established by the school (Georgia Department of Education, 2008). Sugai and Horner (2009) described School Wide Positive Behavior and Intervention Support (SWPBIS) as a prevention approach that highlights the organization of teaching and learning environments for the effective, efficient, and relevant adoption and sustained use of research-based behavioral interventions for all students. The use of effective data is direct and frequent samples of the behavior in question before, during, and after implementing interventions (Ysseldyke et al., 2010). The RTI team will use a problem solving approach and make data based decisions in order to meet the student's needs (Barnes & Harlacher, 2008).

Tier 2 Documentation

Hoover and Patton (2008) found that it is very critical to document the student's responses to the interventions. During this tier teachers are required to monitor the students progress through the use curriculum based measures and standardized assessments (Hoover & Patton, 2008). Students are assessed through progress monitoring at least twice a month (Barnes & Harlacher, 2008) but could be more often. Teachers set up benchmarks for expected growth and graph the student's progress toward the benchmark by using data points. The teachers use the data to monitor the student's growth and need for the intervention to be successful (Hoover & Patton, 2008). Barnes and Harlacher (2008) found that as students demonstrate failure to an intervention, the team needs to respond adequately to the level of instruction or intervention the student needs. The documentation of the intervention serves as important pre-referral decision-making data to make a more formal special education assessment at a later time. Students that do not make sufficient progress in Tier 2 with the implementation of intervention will be considered for more intensive specialized interventions and a formal special education assessment (Hoover & Patton, 2008). Connor and Klingner (2010) found variations in determining if a student is responsive to interventions and there is a direct concern in the use of RTI in the identification of students with learning disabilities.

Tier 3

In most states Tier 3 is the last of the intervention model of RTI. Murawski and Hughs (2009) found that an estimated 5% of the school population will receive services in tier 3 of the RTI model. The third tier can provide long term intensive instruction in which students may remain on for months or even years. The duration of Tier 3 interventions is based on the significance of the student's needs and his or her response to the evidence based interventions. Students are able to float in and out of Tier 3 just as they are able to improve in Tier 2 in order to return to the general population services. Based on the information from the Georgia Department of Education (2008), Tier 3 is when a student is given intense interventions and the interventions will be closely monitored by the Student Support Team (SST) during the problem solving process. During Tier 3 clear documentation of progress monitoring data is needed to support the individual student's needs. The data must be collected and represented on a graph of assessment trends to show student progress and to identify the transfer of learning to the core classroom. Tier 3 interventions provide a more in depth analysis of the student's behavioral problems which could include a thorough review of all other interventions implemented, as well as, a functional behavioral assessment. Since the SST team is involved in Tier 3, the team may address if any additional information is needed or further assessments are required. During this time academic assessments may be completed to determine if there is a link between academic deficits and behavioral problems (Hoover & Patton, 2008).

Tier 3 Intervention

Tier 3 interventions are tailored to the individual student and may include small group or individualized instruction. The SST team must choose the interventions aligned with the evidence-based protocol and closely monitor the student's response to the intervention. Within Tier 3, students are provided high-quality intensive interventions. The interventions included in this tier are more specialized to meet the significant needs of the student (Hoover & Patton, 2008). Fuchs and Deshler (2007) found both traditional methods and RTI methods have varying prevalence rates, severity, and stability in distinguishing responsiveness and non-responsiveness in students identified as reading disabled when educators have adequate knowledge of the RTI process.

The interventions are evidence based and delivered in additional educational settings. In order for a three-tier model of RTI to be effective it must be dynamic and fluid in providing instructional programming across all three levels (Hoover & Patton, 2008). The students that are unresponsive to interventions are students in need of more intensive instruction that may be special education services (Fuchs, Fuchs, & Stecker, 2010).

Tier 3 Documentation

According to Barnes and Harlacher (2008), Tier 3 is when the team determines if a student qualifies for special education services whereas after Tier 3 supports have been provided. Curriculum Based Measure (CBM) provides a tool for progress monitoring in the RTI process and with the CBM a student's response to interventions can be evaluated in a specified time frame that allows the teachers to track data points that determine if the intervention is effective. The CBM provides data to show if a student is eligible for special education services by providing the best practice approach for writing the Individual Education goals and monitoring special education interventions if the student is found eligible for special education services (Shinn, 2007). If a student is identified as a child that needs support services for a longer period of time or more extensive instruction than what general education can provide, he or she should be referred for special education services (Klingner and O'Connor, 2010).

Tier 4

O'Connor and Klingner (2010) found that schools have been encouraged to consider responsiveness to scientifically-based instruction and interventions as one of many markers of eligibility for special education under the category of learning disabilities. Murawski and Hughes (2009) found that students who have different levels of needs may require more specialized and intensive instructions for an extended period of time. If a student is referred through SST and interventions have been documented as unsuccessful, the student will be eligible for special education services. The team will determine eligibility based on the RTI data collected, as well as, psychological testing that has been administered.

Tier 4 Interventions

Tier 4 interventions are developed systematically with formalized progress monitoring occurring during this time. Data is collected and the student on Tier 4 is provided targeted instruction. The interventions are based on the student's assessment data (Georgia Department of

Education, 2008). The RTI team focuses on state guidelines for identifying a learning disability through the use of evidence based intervention and the child's responsiveness to the intervention (Hoover & Love, 2011). RTI provides a sense of stronger focus on intervention, earlier identification of children with disabilities, and an assessment process with clearer implications for academic programming (Ysseldyke et al., 2010).

Purpose of the Study

Response to Intervention is a state mandated model that ensures that all students are receiving an adequate education based on their identified needs. The purpose of this study was to investigate teacher knowledge of RTI within a public school environment. It is vital that teachers and specialists who implement RTI be knowledgeable of the multi-tiered model. Identifying current teacher knowledge can help guide administrators and professional development personnel as they plan for future trainings and implementation of new procedures related to Response to Intervention.

Method

Instrumentation

A survey containing 35 questions was developed to measure teacher knowledge of the Georgia Response to Intervention Model. The survey contained 14 questions with a multiple-choice format, with the choices being Agree, I Don't Know, and Disagree. There was one multiple choice question that asked respondents to list the Response to Intervention tiers in order from the lowest to highest forms of intervention provided in the public school system. There was one multiple-choice question on the identification of what students are served through the RTI model. There were two multiple choice questions with the following choices Tier 1, Tier 2, Tier 3, Tier 4, and I Don't Know on specific interventions that occur on one of the tiers in the RTI model. There were 12 questions based on classroom scenarios where respondents had to identify if the description represented Tier 1, Tier 2, Tier 3, or Tier 4. There were also questions regarding demographics, such as years of experience, respondent's highest level of academic training, respondent's certification, respondent's job description, and what personnel at the teacher's school is responsible for implementing training on the RTI model. A paper/ pencil questionnaire was piloted, using three special education middle school teachers and five high

school regular education teachers located at one middle school and one high school within Coweta County. Anonymity was maintained.

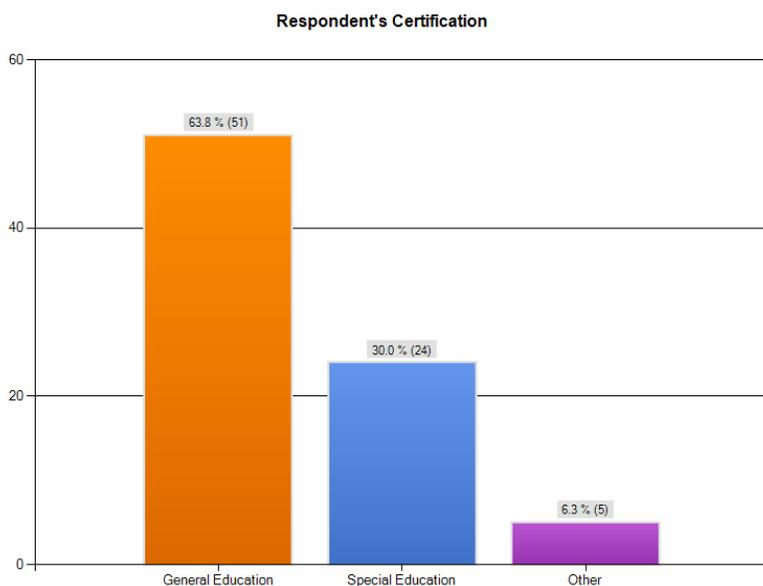
Participants

The questionnaire was sent to all middle and high school teachers in a rural Georgia county school district. The teachers were asked to complete the survey based on their knowledge of the RTI model. A letter was attached to the survey, introducing the researcher, the research topic, and asking the participants to voluntarily participate in the survey. The survey was available online from November 5, 2012 through November 16, 2012.

Results

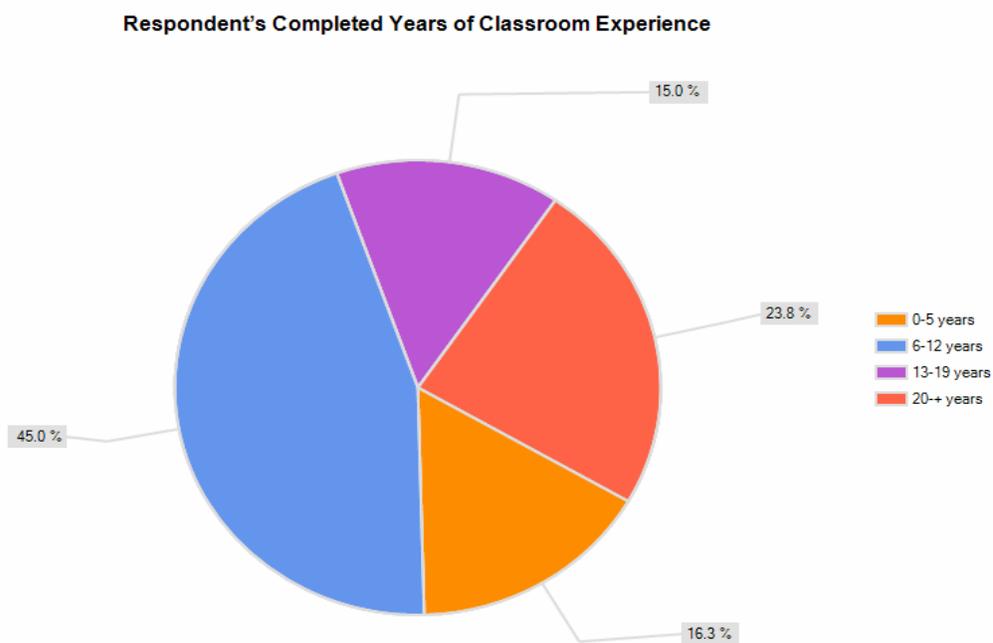
A total of 84 responses were received. Demographic data indicated that most of the respondents were regular education teachers (63.8%) currently working at the middle and high school level. This data is summarized in Figure 1, Respondent's Certificate.

Figure 1



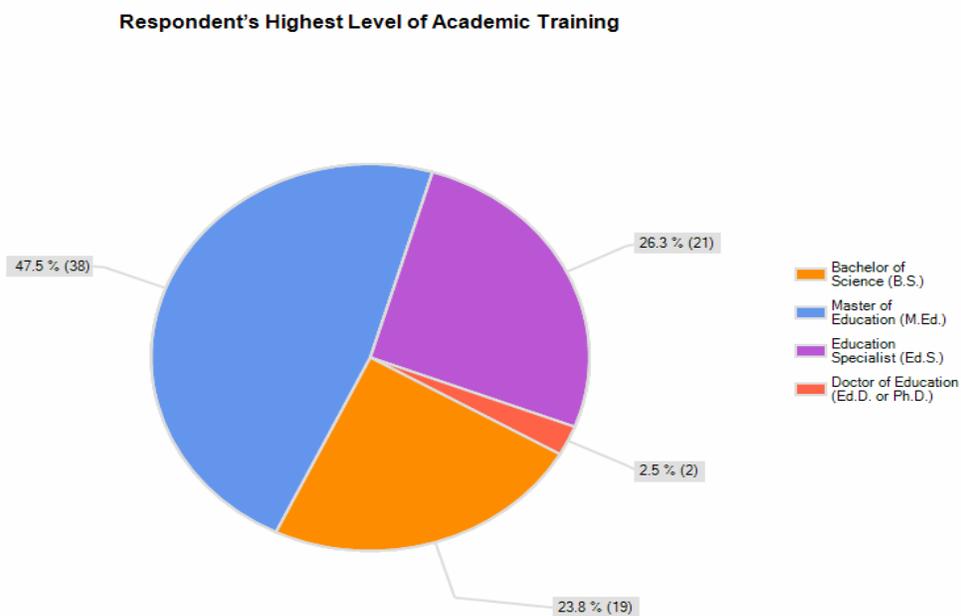
Their years of experience varied from less than 2 years to more than 20 years, with the majority of the respondents indicating they had 6 to 12 years experience working in the classroom (see Figure 2).

Figure 2



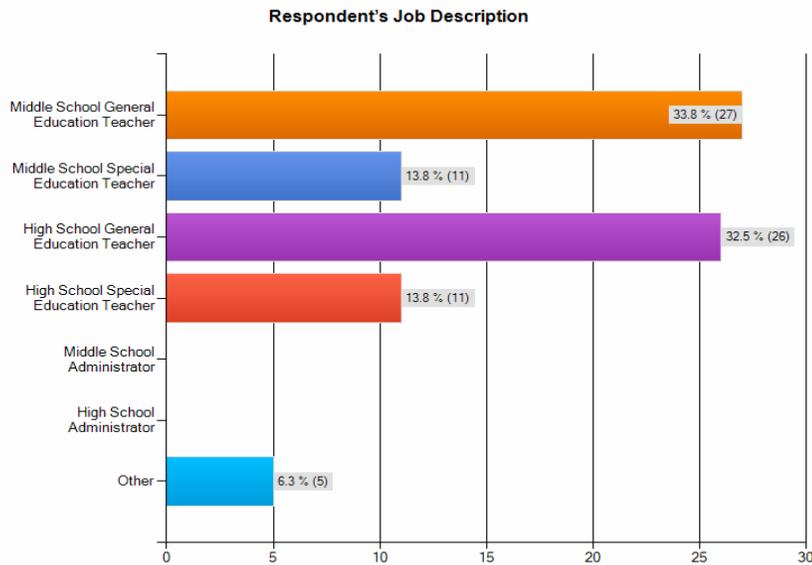
The majority of the respondents had a Master's degree (see Figure 3).

Figure 3



Middle school teachers made up 47.6% of the respondents with 46.3% high school teachers (see Figure 4).

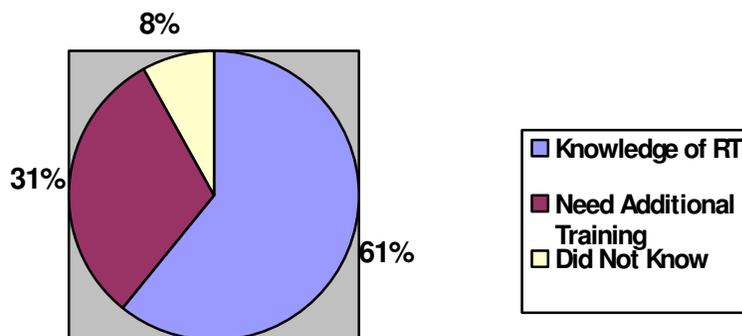
Figure 4



The majority of the respondents (58.8%) had a contact person for RTI who had numerous other duties assigned (i.e. Assistant Principal, ILT, counselor, and/or grade level lead teacher) within the school (see Figure 5, Appendix B). Figure 6 reflects the results of the survey that graph the percent of respondents' knowledge of RTI; those that may need additional training and respondents that do not know the information based on the RTI model (see Figure 6).

Figure 6

Teacher Knowledge of Response to Intervention in Grades 6 to 12



When data was analyzed from the fourteen multiple choice questions, respondents indicated a high level of knowledge of the Response to Intervention (RtI) process on questions one through five, seven, twelve and thirteen. Responses on these items ranged from 81.5% to 98.8%. In question one, “What are the Tiers of intervention in the Pyramid of Success from lowest to highest, 85.2% correctly identified the levels as General Education, Needs Based Interventions, Student Support Team and Special Education as the levels a student progresses through in RtI. Only 11.1% identified Special Education as being the first step in the Pyramid of Success.

Data from questions two and four focused on who is served on the Response to Intervention (RtI) model and the critical parts of the intervention process. Eighty-six-point-four percent (86.4%) correctly responded that all of the above (general education students, students with behaviors and students served in special education) were served. Only 8.6% indicated that general education students were the only ones served by the model. An overwhelming 98.8% agreed that careful attention to paperwork and documentation are critical parts of the RtI process, with 0% selecting disagree. These results have been analyzed in Table 1.

Table 1 Tiers of Intervention, Types of students served and RTI paperwork documentation

Data Clusters with High Levels of Correct Responses	Analysis of Survey Responses
Tiers of intervention, lowest to highest?	85.2% correctly identified General Education, Needs Based Interventions, Student Support Team, Special Education.
	11.1% identified Special Education, Student Support Team, Needs Based Intervention, General Education.
Types of student served in RTI.	86.4% correctly identified that all of the above (general education students, students with behaviors, and students served in special education) were served in RTI.
	8.6% identified special educations as the only students served by the RTI model.
Careful attention to paperwork and documentation are critical parts of RTI.	98.8% an overwhelming majority agreed with the statement.
	1.2% Did not know
	0% disagreed

Questions three, five, seven, ten, twelve and fourteen addressed the respondents’ knowledge of interventions, instruction, and data collection. In question three, 88.9% of

respondents agreed that research-based interventions and progress monitoring are common classroom practices while 4.9% disagreed. Eighty-one-point-five percent (81.5%) correctly identified that teachers can use multiple interventions within one classroom to assist a student. Twelve-point-three percent (12.3%) disagreed. In question seven, "RtI is the use of multi-tiered or layered instruction", 86.4% agreed. Eight-point-six percent (8.6%) did not know, and 4.9% disagreed. Most respondents, 95.1%, agreed that teachers use formative and summative assessment to gather data on the RTI model. A significant number, 88.9%, knew that one component of RTI is flex grouping. Three-quarters of the teachers, 75.3%, disagreed with the statement "data-driven decision making, implementation of evidence-based interventions, differentiation of instruction, and collaboration are **not** necessary for RTI to be effective". These results indicated that respondents considered these to be effective measures of the process. It was interesting to note that 18.5% agreed that data-driven decision-making; evidenced-based interventions and differentiation of instruction were **not** necessary for RTI to be effective.

The last area that respondents scored significantly higher was in the use of RTI as a means of identifying students with learning disabilities. A significant number of respondents (86.4%) agreed that determining if a student is responsive to interventions is a direct concern in the use of RTI in the identification of students with learning disabilities. A small percentage, 13.6% did not know of this relationship to the identification of learning disabilities. The results of this data and a variety of instructional methods have been included in Table 2.

Table 2 Use of Data and Variety of Instructional Methods

Data Clusters with High Levels of Correct Responses	Analysis of Survey Responses for Use of Data and Variety of Instructional Methods
Research-based interventions and progress monitoring.	88.9% agreed that research-based interventions and progress monitoring were common classroom practices.
	4.9% disagreed that the above interventions and progress monitoring were common classroom practices.
Multi-tiered or layered instruction.	86.4% agreed that RTI is the use of multi-tiered or layered instruction.
	4.9% disagreed with the use of multi-tiered or layered instruction.
Data-driven decision-making, evidenced-based interventions and differentiation of instruction.	75.3% disagreed that data-driven decision-making, evidenced-based interventions and differentiation of instruction were NOT necessary for RTI to be effective.
	18.5% agreed that data-driven decision-making; evidenced-based interventions and differentiation of instruction were NOT necessary for RTI to be effective.
Formative and summative assessment.	95.1% agreed that formative and summative assessments are used to gather data in RTI.
	The remainder, 1.2% disagreed and 3.7% did not know that formative and summative assessments are used.
Flex grouping.	A large majority, 88.9% agreed that flex grouping is one component of RTI.
	Only 2.5% disagreed and 8.6% did not know that flex grouping is one component of RTI.

Respondents were less successful in the areas of behavioral supports, responsibility of RtI, specific instructional strategies and curriculum modification, and the use of universal screeners. Only 65.4% of the respondents knew that behavioral supports are needed in order to meet the goals of the RTI model, whereas, 22.2% disagreed and 12.3% did not know. A third of the teachers (33.3%) knew that Positive Behavior Support (PBS) is not implemented on Tier 4 of the RTI model, with 50.6% indicating they did not know. While 54.3% of the respondents knew that it is the general education teacher's responsibility to provide the interventions and document the RTI interventions, 29.6% of the teachers disagreed with the question.

Slightly more than half of the teachers (58%) knew that an intervention used in the RTI model is placing students in a Connection reading class while 30.9% did not know. Only 35.8% correctly identified that the curriculum is not modified on the Response to Intervention model. Fifty-nine-point-three percent of the respondents agreed that the curriculum was modified. Only,

18.5% knew that a universal screener is not used to identify student deficit areas on Tier 2 of the RTI model, while (49.4%) indicated they did not know what the answer would be to the question. The data in Table 3, address the scenario responses in relationship to behavioral supports, responsibility of RtI, specific instructional strategies and curriculum modification, and the use of universal screeners.

Table 3 Areas of Concern in the Implementation of RTI

Data Below 70%	Areas of Concern
Behavioral Supports	65% agreed that behavioral supports are needed to meet the goals of RTI. 33.3% knew that Positive Behavior Support (PBS) is not implemented on Tier 4 while 50.6% did not know.
RTI Responsibility	While 54.3% of respondents agreed that RTI was the responsibility of the general education teacher, 29.6% disagreed with this statement.
Connection Reading Instructional Strategy	Just slightly over half, 58% agreed that placement in a connection reading class is an intervention.
Curriculum Modification	Only 35.8% correctly identified that the curriculum is not modified in RTI.
Use of Universal Screener	A small percentage, 18.5%, knew that a universal screener was not used on Tier 2, while 49.4% did not know.

The second section of the survey asked respondents to select the correct tier that applied to the question and its scenario. The scenario descriptions on the survey were examples provided by Georgia's 2011 Response to Intervention Manual found on the Georgia Department of Education website. Table 4 includes information on the tier levels for placement in special education and the development of the IEP. In question seventeen, 18.5% of the respondents knew that eligibility criterion for special education occurs on Tier 3. Sixty-point-five percent (60.5%) incorrectly selected Tier 4 of the RTI process. In question thirty, though, a majority of the respondents (70.4%) knew Tier 4 serves students with an Individual Education Plan (IEP), 14.8% identified Tier 3 as the level for IEP implementation.

Table 4 Identification of Tier Levels for Special Ed. Placement & IEPs

Question/Area	Responses
Which tier does eligibility criterion for special education occur?	Only 18.5% correctly selected Tier 3. 60.5% selected Tier #4 and 6.2% selected Tier #1.
Based on the scenario of a student being identified, as a student with a Specific Learning Disability, which tier is an Individual Education Plan developed to address deficit areas?	A large percentage, 70.4%, correctly selected Tier #4. 14.8% selected Tier 3, the level where eligibility is determined.

Five of the scenario-based questions on the survey addressed issues related to Tier 3 issues. Correct responses ranged from 22.2% to 51.9%. Data on responses related to the Tier 3 issue can be found in Table 5. In the area of assessment, only 22.2% of the respondents knew that Tier 3 provided students with additional academic drills to identify specific areas of weakness after several formative assessments and that the progress toward a goal is graphed on a weekly basis. Just slightly over half, 53.1%, selected Tier 2. The use and role of the Student Support Team was addressed in two different scenarios. Forty-two percent correctly selected Tier 3 as the tier that the Student Support Team began providing support for a student. Almost a third of the respondents, 30.9% selected Tier 2. Over half, 51.9% identified Tier 3 from the scenario based on the implementation of a behavioral management plan and the availability of the SST members to answer teacher questions.

Table 5 Scenarios Related to Tier 3

Scenario Areas	Responses
Use of Student Support Teams.	42% of respondents correctly identified Tier 3 as the Tier the SST began providing support, while close to a third of the respondents, 30.9% selected Tier 2.
	Just over half, 51.9% identified Tier 3 as the level to implement a behavior management plan with the support of the SST. Just over a third, 34.6%, selected Tier 2 instead.
Academic drills, numerous formative assessments and the graphing of the data.	Only 22.2% correctly identified Tier3 to use the academic drills, numerous assessments and the graphing of the data.
	53.1% selected Tier 2 as the level these tasks were completed.
The development of a plan for current reading interventions in addition to tutoring twice a week.	Only 22.2% correctly identified Tier 3 for developing a plan for current reading interventions in addition to weekly tutoring.
	Slightly over half, 50.6%, incorrectly identified Tier 2 as the appropriate level for these strategies.
After collecting data, a school psychologist is asked to discuss with the team if a disability is the cause of disorganization.	Around a fourth, 24.7%, correctly identified Tier 3 as the level to bring in the school psychologist to discuss and relate disorganization to a disability.
	A large percentage, 61.7% incorrectly identified Tier 2.

Respondents scored significantly lower (22.2%) in identifying that a team of teachers create a plan for the student to continue to receive current reading interventions in addition to tutoring sessions twice a week at Tier 3. Just over half (50.6%) identified Tier 2 instead. A scenario from question #24 presented that a homework notebook strategy that involved monitoring by the teacher, parents and mentor was found to be an effective intervention. The school psychologist is asked to meet to discuss if a disability is the cause of disorganization at Tier 3. Slightly more than a third (39.5%) identified the correct Tier level of the RtI process. Another third of the respondents (33.3%) identified Tier 2 instead (see Table 5).

Three scenarios addressed the use of Tier 2 strategies and interventions. Table 6 identifies areas of strength such as the use of pre-identified strategies and weaknesses in the continued use of an intervention and collaborative planning. Just over a third of the respondents, 39.5% identified that collaborative planning between support and general education teachers is implemented at Tier 2. The same percentage incorrectly identified Tier 1. Fifty-one-point-nine percent (51.9%) knew that students on Tier 2 take frequent assessments in smaller groups and the assessment scores are used to show growth or lack of growth with the continued use of particular

interventions put in place based on the student's performance. Most of the teachers knew that a reading Connection class is an intervention on Tier 2 to help a student apply reading skills from his or her Literature class.

Table 6 Scenarios Related to Tier 2

Scenario Areas	Responses
Collaborative planning time for math support teacher and general education mathematics teacher.	Just over a third, 39.5% of respondents correctly identified Tier 2 as the level for collaborative planning between the support and general education teachers.
	The same percentage incorrectly selected Tier 1.
Continued use of an intervention based on frequent assessments.	51.9% knew that students on Tier 2 take frequent assessments in smaller groups and the assessment scores are used to show growth or lack of growth with the continued use of particular interventions put in place based on the student's performance.
	A third of the respondents, 33.3%, selected Tier 1 instead
Pre-identified strategies reinforced by the Connections teacher and the Literature classroom teacher.	Most of the teachers, 61.7%, knew that a reading Connection class is an intervention on Tier 2 to help a student apply reading skills from his or her Literature class
	Around one-fourth of the respondents incorrectly selected Tier 3.

Four scenarios and the related questions covered Tier 1. In a scenario involving the use of mathematics universal screeners in August, a large percentage, 82.7%, correctly selected Tier 1 as the level to help identify individuals not meeting expectations. The survey also identified that data from common assessments can be shared to identify student needs for support in Tier 1 (69.1%). Participants (53.1%) recognized that flex grouping is another component of Tier 1. Between half and three-fourth of respondents knew that the use of a variety of instructional approaches to support struggling reading is a Tier 1 strategy (61.7%). In general, Table 7 supports that there were a greater percentage of respondents that were able to correctly identify strategies and practices used at the Tier 1 level.

Table 7 Scenarios Related to Tier 1

Scenario Areas	Responses
Mathematics universal screener.	82.7%, correctly selected Tier 1 as the level to help identify individuals not meeting expectations
	Only 12.3% selected Tier 2.
Use of a variety of instructional approaches to support struggling readers.	A significant number of respondents knew that the use of a variety of instructional approaches by a history teacher could support struggling readers at the Tier 1 level, (61.7%).
	Almost a third, 29.6%, incorrectly selected Tier 2 instead.
The use of short-term flexible grouping.	Participants, 53.1%, recognized that flex grouping is another component of Tier 1.
	Just over a third, 37% selected Tier 2 as a strategy for using short-term flexible grouping.
Math teachers collaboratively creating a common assessment and using data to identify students needing support.	After reading the scenario, 69.1% correctly identified data from common assessments can be shared to identify student needs for support in Tier 1.
	Just under a fourth, 22.2%, thought Tier 2 was the level to collaboratively create and collect data to identify students in need of support.

Discussion

This study was conducted to determine teacher knowledge of the Response to Intervention model in middle and high school teachers in a Georgia public school district. Since the implementation of NCLB and IDEIA schools are held accountable for the education of all students. RTI was developed on the basis of effective classroom instruction (Hughes & Murawski, 2009). One of the most challenging issues that schools face with the implementation of RTI is securing teacher support to accept the necessary changes that are required within the instructional framework (Hoover & Love, 2011).

According to Barnes and Harlacher (2008), there are two critical factors considered in RTI on professional development. The first factor considered is that professional development be an ongoing process and that administration does not use the train and hope approach that the staff catch on to the process but receive no follow up training to answer questions that come up during implementation. Less than a third of the respondents (29.8%) did not agree that it is the general education teacher's responsibility to provide a student with an intervention and document the intervention. Teachers are confused on who is responsible for implementing RTI interventions

and documenting the student's progress. In order for RTI to be successful and allow staff to accept the changes in the classroom to assist students that struggle, skills and concepts must be reviewed frequently. The results of the teacher's knowledge of RTI showed that 12.3% of the respondents did not agree that teachers can use multiple interventions within one room to assist students and that the teacher is required to collect the data. A small percentage of respondents, 6.2%, indicated they did not know. The results show that teachers are still unaware of how to effectively implement RTI intervention and document the data. Even well trained experienced teachers need support and guidance on the selection of interventions used with struggling students (Barth, Cirino, Denton, Roberts, Romain, Vaughn, & Wwxler, 2011). Thirteen-point-six percent of the respondents did not know that determining if a student is responsive to interventions is a direct concern in the use of RTI in the identification of students with learning disabilities. When there is a continued level of support provided by administration the support ensures that the staff understand and are fluent with the skills needed in the RTI process. For example, 49.9% of the respondents did not know that a universal screener is administered in Tier 1 of the RTI model and 50.6% of the respondents did not know when Positive Behavior Support is implemented.

The second factor is that even if staff members learn how to use the skills in RTI, the staff needs ongoing professional development to understand why the school is implementing it (Barnes & Harlacher, 2008). For example, 34.8% of the respondents thought that a baseline is established and a behavior plan is implemented on Tier 2 of the RTI model. When a baseline is collected and the SST members are involved with the data collection the student is being served on the third tier of RTI. Murawski and Hughes (2009) found that an effective teacher in the RTI process should have excellent classroom management skills, balanced teaching skills, scaffolding and differentiated instruction, as well as, an understanding of cross-curricular connections, and motivation to encourage student progress. Unfortunately, 22.2% of the respondents disagreed that behavioral supports are needed in order to meet the goals of RTI. RTI has been found highly effective in remediating student's academic problems when teachers are provided the training and support to implement intervention within the classroom (Hughes & Murawski, 2009). While 30.9% of the respondents did not know that placing a student in a Connection reading class was an intervention in the RTI model, 53.1% of the respondents thought that graphing the progress

monitoring on a weekly basis occurred on Tier 2. Progress monitoring of an intervention on a weekly basis is a more intensive service that occurs on Tier 3. In order to maintain staff support it is critical that the principal and school district provides teachers training and support to be as effective as possible in the classroom. For example, 33.3% of the teachers thought that allowing students to take frequent assessments in a smaller group setting occurred more in Tier 1 than Tier 2 where small group instruction is an intervention to support the struggling learner. Teachers must have an understanding of the different components of the RTI model in order to implement high quality instruction to provide struggling learners with the interventions needed to be successful in accessing the curriculum. Almost a third of the respondents (29.8%) thought the SST members became involved with the student on Tier 2 of the RTI model and not in Tier 3 where the interventions are more intensified. Teachers must be instructed on how to collaborate with other colleagues in order to promote consistency within the classrooms (Hoover & Love, 2011). Almost 22% of the respondents thought teachers collaboratively creating assessments occurred primarily in Tier 2 of the RTI model and not in Tier 1 that is what most general education teachers do as part of their job. Students that respond poorly to instruction are sometimes found to be in classes where lower quality instruction is being delivered (Klingner & O'Connor, 2010). Almost half of the respondents (50.6%) thought giving a student a diagnostic reading test to determine specific reading deficits and creating a plan for the student to continue intervention plus tutoring occurred on Tier 2. In Georgia, this is an example of more intensive intervention being put in place to help the student make gains in reading that occurs on Tier 3.

When teachers are trained and provided support in the implementation of RTI they can be effective in providing high quality experiences so student responsiveness is meaningful (Klingner & O'Connor, 2010). Nunn and Jantz (2009) found that an important indicator of how teachers perceive their teaching ability and how they can positively influence the outcomes in the learning environment is based on their teacher efficacy. If a teacher has high teacher efficacy in the RTI process the students will benefit from the teaching styles. The results of this study show that not all middle and high school teachers within a public school system are fully knowledgeable about the RTI model and that additional and continuous training is needed to implement the model successfully.

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