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Response to Intervention Training Programs at the Secondary Level

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Abstract

Upon review of the literature there appears to be a lack of training for secondary teachers on the

implementation of Response to Intervention (RTI). Literature shows that high school principals

and assistant principals, as well as special education directors, from around the country agree that

the implementation of RTI at the secondary level is not working as well as it should due to time

constraints, inconsistencies in programs and lack of training. Therefore, for this study a teacher

without prior RTI training and a student with an RTI Tier 2 goal were used to research the

progress of the student toward his RTI goal before and after the teacher received training in the

implementation of RTI. The data showed greater progression toward the achievement of the

student's RTI Tier 2 goal after teacher received training with a 61.5% change in the student's

performance from baseline to intervention. However, due to the limited generalizability of the

findings due to the limited number of participants, additional research is definitely warranted.

Keywords: Response to Intervention; RTI; RTI Training; RTI secondary level

Response to Intervention Training Programs at the Secondary Level

RTI is an intervention framework designed to meet the goals of No Child Left Behind (2001) and the Individuals with Disabilities Education Act (2004; IDEA; Sansosti et al., 2011). The assertively stated goal of No Child Left Behind (2001) is to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education, and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments (NCLB, 2001; Simpson et al., 2004). Within the state of Georgia, RTI is a 4-tiered program providing researched-based instruction with progress monitoring for individual students. The Georgia Department of Education (2011) classifies the tiers in the following way: Tier 1 is based on the standards-based classroom and is universal learning for all students; Tier 2 is needs-based learning that targets specific areas of needs in students through small group instruction/intervention, as well as the instruction and support from Tier 1; Tier 3 is driven by the Student Support Team (SST) and contains more intensive individualized interventions, as well as the instruction/interventions from Tiers 1 and 2; and finally Tier 4 is when he/she has not responded to previous interventions or strategies implemented in Tiers 1-3 and the student is evaluated and qualifies for special education services.

Embedded in the tiered program are two critical components: implementation of evidence-based instruction/intervention and ongoing assessment to monitor student progress or response (Richards et al., 2007). When discussing more intensive instruction, it is important to make sure the interventions specifically target the behavior or academic problem. Increasing intensity through each tier is achieved by (a) using more teacher-centered, systematic and explicit instruction; (b) conducting it more frequently; (c) adding to its duration; (d) creating smaller and more homogenous student groupings; or (e) relying on instructors with greater

expertise (Fuchs & Fuchs, 2006). Data are collected during each tier to determine if the student

is responding to the interventions/instruction. These data collections are called progress

monitoring. Students move up through the tiers as the data from the progress monitoring

indicates areas that are unresponsive to the interventions implemented in each given tier.

Students who are unresponsive to interventions across Tiers 1, 2 and 3 are then recommended for

testing for special education services.

Why use RTI?

The underlying premise of RTI is that schools should not wait until students fall far

enough behind to qualify for special education services to provide them with the help they need.

Instead, schools should provide targeted and systematic interventions to all students as soon as

they begin to struggle academically or behaviorally (Buffum, Mattos, & Weber, 2010). RTI is a

framework for making instructional decisions and implementing interventions to help students

before they fall behind, giving students the tools they need to be academically and behaviorally

successful (National Center on Response to Intervention, 2010). RTI is not a means of

identifying students for special education, but rather identifying struggling students and

providing interventions to increase their success. RTI is not merely a means of increasing test

scores or remaining legal under IDEA. While these may be benefits of RTI, the ultimate purpose

is to help children be more successful in the school setting (Buffum et al., 2010). Berkely et al.

(2009) have strong beliefs about why to use RTI. They state that since the number of students

identified for Students with Learning Disabilities (SLD) services has increased 200% since 1997,

it has created a concern in the field about misdiagnoses such as false positives and false

negatives when identifying students with SLD. There has been an ongoing debate among

educators in regard to this issue. Their immense dissatisfaction with the IQ-Achievement

discrepancy model as the primary method for identifying students with SLD, has been the lead

reason for the debate, research and discussion about the definition and identification of SLD. In

response to these growing concerns about the dramatic increase in SLD services, the RTI model

has emerged as an alternative identification method (Berkely et al., 2009).

Although RTI might be useful for identifying students with SLD, there are other

considerations for the use of RTI at the secondary level. Burns (2008) laid out some specific

indicators for secondary schools in which RTI would be helpful: (a) the school did not make

AYP; (b) the student population in the school has high needs (e.g., a high-poverty environment);

(c) more than 2% of the student population is referred for an initial consideration of special

education eligibility; (d) fewer than 90% of students in the school who are referred for special

education are found eligible, and (e) students from minority groups are overrepresented in the

special education programs. Identifying students for RTI in these other areas could not only

improve school performance, but student performance as well.

What are the guidelines for RTI?

Although RTI is mentioned within IDEA, it is left up to individual states to decide how to

structure and implement RTI (Zirkel & Thomas, 2010). The only specific element within IDEA

in regard to RTI is that the local education agency (LEA) teams need to "consider" at least one

essential element of RTI: data-based documentation of repeated assessment of achievement at

reasonable intervals, reflecting formal assessment of student progress during instruction (Zirkel

& Thomas, 2010). This means that states implementation of RTI varies by state and some states

can have more elaborate RTI systems while other states have more basic or simple systems.

Although each state varies somewhat in the guidelines for implementation of RTI, the

state of Georgia has some specific guidelines that are explicitly required by law, some that are

implicitly required by law and some that are explicitly recommended by guidelines (Georgia

Department of Education, 2011). Guidelines that are explicitly required by law are (a) high

quality research-based instruction in general education and (b) continuous progress monitoring.

Multiple tiers of progressively more intense instruction/interventions are implicitly required by

law. The guidelines that are explicitly recommended are (a) universal screening for academic

and behavior problems, and (b) fidelity measures. Georgia also requires that tiers 2 and 3

interventions maintain duration of greater than or equal to twelve weeks (Zirkel & Thomas,

2010). However, even with these specific guidelines each individual school district is left with

numerous liberties as to how to implement RTI.

How should RTI be implemented?

There are some basic elements needed for successful RTI implementation within a

school, such as training, layered instruction, evidence-based practices and measurements and

systematic data collection (Hoover & Love, 2011). Training for the implementation of RTI

should begin with all general education teachers and special education teachers who will be

working with students within the RTI framework. Research has been conducted to evaluate the

amount and types of training teachers receive related to RTI implementation. Hawkins et al.

(2008) determined that there are many states implementing RTI with little training for personnel

implementing RTI in the classrooms. In their research, they suggested some areas for training

for educators before implementing RTI are (a) collaboration and consultation; (b) elements of

RTI, evidence-based prevention, instruction, and intervention; and (c) data-based decision

making. Training is an integral part of the proper implementation of RTI in order to make RTI

more effective for students and teachers.

Along with the training also comes the need for multi-tiered or layered instruction. Martinez and Young (2011) state simply that inherent to all approaches of RTI is a process to (1) define a student's problem; (2) plan an intervention for the student; (3) implement the intervention, and (4) evaluate the student's progress. These are the building blocks for tiered instruction. If a student is not making adequate progress on their RTI goals when given interventions and strategies appropriate for that tier level, the student will move to the next tier and receive more intense and individualized interventions and strategies aimed at assisting them in reaching their goal (Martinez & Young, 2011). To obtain sufficient data on whether or not an intervention or specific strategy has been successful, it needs to be in place for at least 12 weeks and progress is monitored weekly (Zirkle & Thomas, 2010).

Within these tiers of layered instruction should be evidence-based practices, which are also an essential component of the RTI process. Evidence-based interventions are specific teaching interventions such as direct instruction, collaborative strategic reading and reciprocal teaching (Hoover & Love, 2011). According to the National Center on Response to Intervention (2010) evidence-based interventions are those that have proven through data to be effective; they improve results for the students who receive these interventions.

Throughout the RTI process at every tier, measurements and data collection drive the RTI process. There are different ways to collect data: universal screenings, progress monitoring and diagnostic assessment data. According to the National Center on Response to Intervention (2010) universal screenings are short assessments that are given to all students and focus on target skills and are highly predictive of future outcomes, and are typically given at the beginning of the school year. Those who score below the cut point are given a second screening to more accurately pinpoint the area of weakness and determine if more intensive interventions are at the

next tier are needed or not. Progress monitoring done on a regular basis is used to determine a

student's response to interventions and should be used to make decisions related to intervention

implementation and possible changes in tiers of RTI for a student. Tier 1 progress monitoring is

typically monthly, Tier 2 is at least bi-monthly, and Tiers 3 and 4 should be weekly (Zirkle &

Thomas, 2010). Lastly, diagnostic assessments at any time can be used to specifically identify a

student's particular needs. These can be different assessments but all answer the question as to

why the student is struggling in a particular area. Data are collected from whichever instrument

of measurement is used to make informed instructional decisions. Maintaining the fidelity of the

data, as well as the evidence-based intervention and training for all professionals involved in the

process is necessary for RTI to be successful.

RTI at the Secondary Level

When considering RTI at the secondary level, it is important to realize that there should

be some fundamental differences to how RTI functions at the elementary level and how it

functions at the secondary level (Vaughn & Fletcher, 2010). Vaughn and Fletcher (2010)

indicate that one of the fundamental differences between the elementary and secondary RTI

process is the screening process. Secondary students should not have to go through the initial

RTI stage of universal screening. By the time student reaches high school, there should be extant

data sources to identify areas of weakness. It is also their belief that when considering the RTI

process at the secondary level, the tiers should look upside down compared to the tiers

implemented with elementary-aged students. Whereas in elementary school students work their

way through the pyramid with fewer students needing more intensive interventions at each level,

when in secondary school, intensive interventions should be started right away and then as

students progress and make improvements, the intensity of the interventions should be reduced

as opposed to starting with less invasive interventions and moving to more invasive interventions (Vaughn & Fletcher, 2010). This would cause the tier system to look more like an upside-down pyramid, with the strongest interventions given right away at the secondary level.

While Vaughn and Fletcher (2010) think of RTI as an upside down pyramid not using many screeners, another way of considering how to utilize RTI at the secondary level is presented by Canter, Klotz, and Cowan (2008). They report that some high schools were concerned over students not being able to pass state standardized tests.   Students coming up from the eighth grade into one specific high school were given universal screenings to determine which students were in need of interventions. A specific group of students was targeted, in this case, math students who were identified as not meeting grade-level competency. These students were given interventions through the RTI process to help them progress in math to the needed levels to pass the standardized math graduation test. The students' progress was almost twice that of what had been seen in previous years. Screeners used for students coming into high school on RTI can better help a student receive the interventions appropriate for their RTI Tier goals.

Whereas it might be appropriate to use the same process for students in the eighth grade, Fuchs et al. (2010) believe that the elementary RTI framework reflects three assumptions that may not apply at the secondary level: (a) screening is required to identify risk before academic deficits materialize, (b) determining responsiveness to less intensive levels of the prevention system is required to identify students who need more intensive services, and (c) the nature of effective intervention is the same across the grades.   Students at the high school level have less time to reach the level they need to be on to be successful, therefore requiring that more intensive interventions be implemented early in their high school career.

Perceptions of RTI

When considering RTI at the secondary level, it is important to get the input of those

educational professionals who work with students at that level. The following case studies

conducted by Sansosti et al. (2010, 2011) and Werts et al. (2009) address the topic of how these

professionals perceive RTI to be functioning at the secondary level. Each of these studies

focused specifically on RTI implementation at the secondary level, and did not consider RTI

implementation at the primary or elementary level.

In the first study, Werts et al. (2009) identified special education directors in each of

North Carolina's 117 school districts. There were 119 directors specified and each was

contacted by email to participate in an online survey. Due to different circumstances, only a total

of 46 directors completed usable questionnaires. The questions for their survey fell into three

areas: roles of teachers and other personnel within RTI, time needed to implement, and decisions

affecting implementation of RTI in the classroom. The data from their survey was entered into a

database and compiled based on two areas: percentages of persons responding to each option in

the multiple choice questions, and analysis of written comments for the two open ended

questions. Written responses were printed out and sorted, while multiple choice responses were

put into a table to look for similar responses. For the question "Who should determine a

student's non-responsiveness?" (check all that apply), 92.9% stated the special education teacher,

92.9% stated the general education teacher, 92.9% stated the reading teacher, and 88.1% stated

the school psychologist. In regard to who should collect the data, 87.5% stated the school

psychologists, 80.0% stated the special education teachers who have worked with the student,

and 85.0% stated the general educators who have worked with the student. These results

indicate that these special education directors believe that it takes a group of personnel to

properly implement RTI. These are similar results among directors, but when asking participants

about how long students should be in different phases of RTI and how long instructions should

last, the results are staggered and indicate a lack of knowledge in these areas. Also of

importance, only 75% indicated any previous training in RTI. Whereas special education

directors do agree on some procedures with RTI, there are others where results differ greatly,

indicating that there has been no particular training or no congruent training within the state.

Sansosti et al. (2010) also used an online survey to discover principals' and vice/assistant

principals' perceptions of RTI at the secondary level, however, they did have a different

approach to selecting their participants. These researchers employed a company who manages

an email database to the members of the National Association of Secondary School Principals

(NASSP). In order to recruit participants, 2,000 emails were sent out randomly to the members

of NASSP containing a link to an online survey and requesting the administrators to participate

in the study. Of the 2,000 emails sent, almost half were undeliverable, and of those delivered,

only 476 were actually principals or vice/assistant principals employed in a school district at the

time. These 476 were the participants in the survey. Each question on the survey was given a

two-part answer: perceived importance and actual availability. The researchers used a 5-point

Likert scale with each question asked. They researched questions that dealt with the importance

and implementation of RTI. Upon analysis of their results, these researchers found that there

was a discrepancy between what the participants perceived was important to RTI, and what was

actually available for implementation of RTI. Intervention and Communication were the two

highest categories of perceived importance, yet they fell within the bottom three of actual

availability for implementation, indicating a lack of education in what interventions are available

for use in RTI. The lack of communication can also be indicative of not understanding roles

within the RTI process. Beliefs fell within the top two categories of availability, but not as high

on the perceived importance list, indicating that although administration may have strong beliefs

about RTI, it is not necessarily a priority. These combined signify a lack of training as to the

importance and implementation of RTI within the secondary school setting.

As opposed to Sansosti et al. (2010), Sansosti et al. (2011) randomly chose special

education directors from four counties in a Midwestern state with a total of 20 directors selected

to participate in the study. Of the 20 selected participants, only 17 actually participated. The

participants were divided into two separate focus groups, with eight in participants in one group

and nine in the other. These researchers used face to face focus groups in their qualitative

research and met with each group of participants in different sessions. Researchers met prior to

each focus group session to review questions and procedures. The focus group sessions lasted

approximately 90 minutes each. Prior to, during, and after each focus group session, a

procedural checklist was maintained for integrity. The special education directors were asked

specific questions in regard to the perceptions of RTI at the secondary level, and their responses

were recorded on two separate recording devices. The moderator also recorded their answers on

paper to use should anything on the recorders be indecipherable. Sansosti et al. (2011) employed

the staff of a research bureau to transcribe each of the audio files into written documents. The

researchers then took the written document and cut it into sections according to the questions

asked during the focus groups. Answers to each question were sorted and were then assigned a

theme. From there a summarization document was created based on these themes: (a) systems

structures, (b) roles and attitudes, (c) evidence-based practices, and (d) training and professional

development. Sansosti et al. (2011) focused their attention on the facilitators of and barriers to

the implementation RTI. The researchers found that the participants indicated that there were

barriers in the current RTI structures at the secondary level. There is difficulty finding time to provide students with interventions because teachers are not given enough class time to engage in RTI related activities at the secondary level due to class schedules. Research indicated that the lack of specific implementation guidelines leads to inconsistencies, and a lack of clarity of general education and special education teachers' roles makes it difficult to implement and monitor RTI appropriately. Training in the implementation of RTI and the roles each teacher plays is necessary for proper RTI implementation at the secondary level. In each of these studies, there were varying opinions on separate issues, but the preponderance of special education directors, principals and vice/assistant principals did agree that there are certain roles personnel take to implement RTI and to have RTI function properly, although they may not know exactly what those roles are. Since RTI is a process that needs to be implemented in a certain manner to be successful for students, training is an important part of that process that is often times lacking.

Discussion

In reviewing literature on RTI at the secondary level, it is important to know that RTI is a tiered program that has been mandated through the passage of No Child Left Behind and IDEA (Sansosti et al, 2011). RTI is designed to target individual needs and provide interventions and strategies to help students overcome areas where they have deficits. When looking at RTI at the secondary level, Fuchs and Fuchs (2006) state that it is significant to realize that opinions regarding the implementation and training of personnel differ from the programs that are currently being used at the elementary level. With many of the interventions being specifically aimed toward reading and math, these interventions are difficult to incorporate in traditional secondary settings due to class schedules. Difficulty finding time within the school day to incorporate interventions leads some to believe that RTI should begin with more intensive

strategies at the secondary level than at the elementary level (Fuchs & Fuchs, 2006). This is due

to initiatives such as Annual Yearly Progress (AYP) and standardized graduation tests. Although

elementary schools are also expected to reach AYP each year, the elementary school does not

have significant areas such as: dropout rate, graduation test scores, and End of Course Test

scores. Since these begin as early as the 9th grade, intensive interventions need to begin early at

the secondary level. Failing these tests may lead to students not graduating high school. Many

special education directors, teachers and secondary principals believe that RTI is a good

program, but more training needs to be provided in order to successfully implement RTI

(Sansosti et al., 2010, 2011; Werts et al., 2009). As school districts across the nation continue to

implement RTI, it will be important to document how RTI affects teacher practices and

instructional quality (Swanson et al., 2012).

Implications

Because of the review of literature in regard to RTI, it can be stated that more training is

needed at the secondary level in order to make RTI successful at the secondary level. Being able

to identify and meet the needs of struggling students at the secondary level requires a different

approach than at the elementary level. Additional research is needed to determine successful

ways to implement RTI at the secondary level. Teachers need to be able to provide intensive

evidence-based interventions, and in order to do that, need a specific training program. Kovalski

(2007) stated that there is a need for training in regard to RTI implementation for all teachers and

specialists who will be implementing RTI; it will not be sufficient for school psychologist and

special education teachers to have these skills. Therefore, the purpose of this study is to answer

the following research questions:

1. What effect will a detailed training program in RTI for a high school teacher have on student performance on RTI goals?

2. What effect does an RTI training program have on a teacher's comfort level of implementing RTI and his/her perceived effectiveness?

Method

Research Design

A single subject A-B design was used to assess progress on an RTI Tier 2 goal for one high school student and a pre/post qualitative survey (see Appendixes A & B) was completed by the teacher to evaluate her views regarding training related to RTI and her effectiveness implementing RTI before and after training. Baseline data for the RTI Tier 2 Goal were collected before and while the teacher received detailed training on how to implement RTI. Once baseline data were collected, and the teacher training was complete the intervention phase for the student began. During the intervention phase the teacher began to use interventions and strategies learned throughout the training program, and implemented those with fidelity. Data were taken daily for three consecutive weeks on the student's RTI goal. Although single subject A-B design research is weak in internal validity, it can indicate whether or not an intervention has been successful in changing behavior (McMillan & Schumacher, 2010).

Setting

This research took place entirely within one general education classroom. This classroom is located within a high school in rural Georgia and contains 32-34 students. This high school is in a Title I county, although this high school is not considered a Title I school. Within the county, there are five high schools. This high school has approximately 1650 students enrolled. Demographics found on the Georgia Department of Education (2011) website

indicate the student population is that 53% are white, 34% are black, 8% are Hispanic, and 5% are other. At the time of the study, of the entire school population 42% of the students were eligible for free and reduced lunch and 10% were students receiving special education services.

Participants

Students from the school's RTI list of 42 students were reviewed. The student chosen to participate was based on the following criteria (a) student was receiving RTI Tier 2 services, and (b) student already had a clear and measurable RTI Tier 2 goal. Tier 2 students were cross referenced with the teacher participating in the study to make sure the student would be in one of her classes. Students not already in RTI at the Tier 2 level were excluded from this study. This study also involved the student's teacher. The teacher was chosen from 120 teachers with the following criteria (a) not formal RTI training in college or at school, and (b) had RTI Tier 2 students in her class.

Jeff. Jeff was a 16 year old repeating freshman. He had been on RTI Tier 2 since August 2009 when he was in the sixth grade. Jeff's RTI goal was a behavior goal put in place to help him stop his impulsive disruptions during class. His parents were contacted for permission to have him participate in the research and they signed the parent consent form (see Appendix C). The student was also contacted for permission to participate in the research and he signed the minor assent form (see Appendix D).

Teacher A. Teacher A had been teaching for three years. She taught general education science with inclusion classes and non-inclusion classes. This teacher was identified as having no formal training in RTI, but still had RTI students in her classroom. She had been teaching Jeff since the beginning of the school year. Teacher A signed a consent form (see Appendix E) and agreed to voluntarily participate in the study.

     Researcher. The researcher was the special education lead teacher at a high school with Teacher A and Jeff. She had been at the same school for ten years in special education. She currently had a master's degree in special education and was continuing her education toward her specialist degree. She had never taught Jeff, nor had she ever taught with Teacher A in an inclusion setting.

Independent Variable

     The independent variable for this research study was a training program in implementing RTI. The training manual came directly from Georgia Department of Education (2011). The teacher received three one-hour training sessions. Session one consisted of learning Georgia's Pyramid of Intervention and solving learning concerns (see Appendix F, pgs. 7, 20-35). The first 15 minutes of the session was spent studying the different tiers levels of the RTI pyramid. The remainder of the training session was focused on the following topics: Problem Solving and Standard Protocol, Progress Monitoring, Differentiated Instruction, Flexible Grouping, Universal Screening, and RTI and Behavior as outlined in the Georgia RTI training manual. Session two looked at Tier 2 – Needs Based Learning and Interventions and Programs (see Appendix F, pgs. 42-43, 53-54). Since the research was based on RTI Tier 2 students, Tier 2: Needs Based Learning was the only tier specifically studied. Also, within this training session were Interventions and Programs: Evidence-based Interventions. Session three consisted of Fidelity of Implementation and Progress Monitoring, and the Roles and Responsibilities of those implementing RTI as outlined in the Georgia RTI manual (see Appendix F, pgs. 73-76). The main portion of time during this training session was spent on Fidelity of Implementation and Progress Monitoring.

Dependent Variable

The dependent variable was the progress the student made on Tier 2 RTI goals, which would be fewer impulsive outbursts in class. Progress monitoring began as soon as the training was complete using researcher created form (see Appendix G). Jeff's goal was to limit his impulsive outbursts to no more than one per class period. There will also be the dependent variable of the perceived knowledge and comfort level of teacher in implementing RTI after formal training has taken place.

Measures

The data were collected daily for student, and was compiled to create a baseline of student performance on RTI Tier 2 goal. Data were collected using researcher created data collection forms. The researcher developed a data collection form (see Appendix G) for tracking Jeff's impulsive outbursts in class. An impulsive outburst is defined as the student responding out loud with raising hand and getting permission, inappropriate comments out loud in class, and loud interruptions during work time. Tally marks were drawn each time an impulsive outburst was observed. A pre-survey (see Appendix A) was given to the teacher at the beginning of the study assess her previous training related to RTI as well as her comfort level related to implementing RTI. After training, the teacher implemented an intervention of self-monitoring with student. Student kept track of his impulsive outbursts in the classroom on the same researcher developed data collection form (see Appendix G). Upon completion of the training program and implementation of the intervention in the classroom, the teacher was given a post-survey (see Appendix B) to assess her perceived knowledge and comfort level with implementing RTI.

Implementation

To begin the research process, a teacher was identified as having no previous RTI implementation training and having a student in her classroom that had RTI goals. The researcher requested for the teacher to participate in this research study. Once permission was given, the teacher completed the teacher consent form (see Appendix E). Within Teacher A's classes, students were identified as being on RTI Tier 2. Looking at these particular students, a student identified as having an RTI Tier 2 goal was chosen. A call was made to the student's parents to ask permission for the student to participate in this research study. Once verbal permission had been given, parent consent form (see Appendix C) was sent home to be signed. After the signed parent consent form was returned, the student was asked to participate and sign the student assent form (see Appendix D). Once all of the consent and assent forms were signed and returned, the research study began.

Before training began, Teacher A completed a brief pre-training survey (see Appendix A). During the baseline phase the student received their normal instruction with no additional interventions and the teacher used researcher developed data collection forms to determine how the student was performing in his area of concern as outlined in the RTI plans (see Appendix G). During the baseline data collection period, the teacher received three one hour sessions of RTI implementation training. Following teacher training, a self-monitoring intervention was put in place for the student. Continuous progress monitoring occurred to determine if there was change in the students' behavior once the teacher implemented the interventions and strategies covered during the RTI training.

Teacher training. Prior to starting the training, the teacher was provided with a copy of the training manual from the Georgia Department of Education in RTI (see Appendix F) by the

researcher. The researcher provided the training across three sessions and conducted the training

after school hours in a private office within the school. Each training session consisted of

researcher reviewing vocabulary, walking through the manual with the teacher and answering

any questions that arise from the training material. The first session was conducted during the

fourth week of baseline data collection, and the last two sessions were conducted the fifth week

baseline data collection. Session one consisted of learning Georgia's Pyramid of Interventions

and solving learning concerns as outlined in the manual (see Appendix F, pgs. 7, 20-35). The

first 15 minutes of the session was spent studying the different tiers levels of the RTI pyramid.

The remainder of the training session was focused on the following topics: Problem Solving and

Standard Protocol, Progress Monitoring, Differentiated Instruction, Flexible Grouping, Universal

Screening, and RTI and Behavior. During the second session, the researcher covered Tier 2 –

Needs Based Learning and Interventions and Programs (see Appendix F, pgs. 42-43, 53-54).

Since the focus of this study was on RTI tier 2 students, Tier 2: Needs Based Learning was the

only tier specifically covered during the training. Also, within this training session were

Interventions and Programs: Evidence-based Interventions. During session three the researcher

covered Fidelity of Implementation and Progress Monitoring, as well as the Roles and

Responsibilities of those implementing RTI (see Appendix F, pgs. 73-76). The main portion of

time during this training session was spent on Fidelity of Implementation and Progress

Monitoring. In between training times, the teacher was encouraged to also look at websites that

discuss and give examples of evidence based practices and interventions, read other books

relating to RTI or evidence based practices, and talk to other teachers who are more educated in

the RTI process. At the end of the training program and after implementing intervention,

Teacher A filled out a post-training survey (see Appendix B).

   Intervention. Once the teacher completed the training, and baseline data were obtained

for the participating student, the teacher shared with the researcher some of the evidence based

practices and interventions that she had done her own research on through the internet, reading

and speaking with other teachers educated in RTI. The teacher initiated an intervention learned

throughout training process to implement in the classroom; self-monitoring. The teacher

reviewed with the student the researcher developed data collection form and taught him how to

track his own outbursts in class (see Appendix G). The student then began tracking his own

outbursts in class on the data collection form. Each time he spoke out inappropriately, he

marked a tally mark on his data collection form. This data was collected for three consecutive

weeks.

Data Analysis

  Data collection sheets were collected at the end of each week. These data collection

forms were to determine how many impulsive outbursts the student had in class. Baseline data

were collected for 5 consecutive weeks. Intervention data were collected for three consecutive

weeks. Data were analyzed to note the effect of the implementation of a specific intervention on

the progress of the student toward meeting his RTI Tier 2 goal. Using the researcher created data

collection form for behavioral goals, data was compared from the baseline to the data collected

during the time period of the intervention. Data were graphed to show the relation between the

impulsive behavior pre-intervention and post-intervention.

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Results

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Jeff

  Graphed data for Jeff is displayed in Figure 1. The teacher collected baseline data

collected once a week on Jeff's RTI goal for 5 consecutive weeks with a range of 4 to 11 and a

mean of 7.8. After the teacher received training in RTI she implemented a self-monitoring

intervention with Jeff. During the intervention phase, the student collected and tallied weekly

intervention data with teacher verification. During the 3 weeks of intervention. During the

intervention phase, the number of outbursts per week ranged from 1 to 4, with a mean of 3.

Therefore, there was a 61.5% change in the Jeff's behavior from baseline to intervention

indicating that the intervention had a positive effect on Jeff's behavior.

Teacher

The teacher was given a pre (see Appendix A) and post (see Appendix B) survey before

and after she participated in training on the implementation of RTI to determine her knowledge

of RTI and RTI implementation as well as her perceived comfort level with implementing RTI

with her students. Upon review on her responses to the pre-survey she indicated that she had

never received any RTI training and furthermore, did not even know what the acronym stood for.

She did not feel confident in implementing interventions in the classroom, or evaluating their

success. At the time training began, she was not implementing any RTI interventions in the

classroom. However, after completing the RTI training her responses on the post-survey

indicated that she felt the information on implementation and progress monitoring were the most

valuable. She also stated that she now understood more about how to clearly define

responsibilities and how to link the interventions to improved outcome. She also has an elevated

confidence in implementing RTI but would like to have more students to work with. Therefore,

it can be inferred that this training program has been beneficial in increasing the knowledge level

of RTI implementation and the confidence level of practical implementation in the classroom.

Discussion

The study focused on the outcome of secondary level student's achievement on an RTI

Tier 2 goal when the student's teacher received training related to the implementation of RTI.

The results from this study and from the teacher feedback indicate the need for more training in

the implementation of RTI for teachers at the high school level. Prior to receiving training related

to RTI the teacher was not implementing an intervention to address the student's RTI goal, but

was just collecting progress monitoring data. However, after receiving training related to RTI the

teacher implemented an appropriate intervention and there was over a 60% improvement in the

student's achievement for his RTI goal.

Jeff was a student on Tier 2 of RTI for his difficulty controlling his impulsive outbursts in

the classroom. Even though Jeff had been identified as having behavioral needs and was placed

into RTI, Jeff's teacher had never received training on RTI implementation or what interventions

would be beneficial for a student with behavioral needs. During this research, the teacher

completed a training program with the researcher based on the RTI implementation manual (see

Appendix F) published the Georgia Department of Education (2011). Once the teacher

completed the training program, she identified an evidence-based intervention, self-monitoring,

to implement with Jeff to address his RTI goal. She was more confident of choosing an

intervention and implementing it in the classroom.   After implementation of the intervention,

Jeff's impulsive outbursts in the classroom improved from an average 7.8 impulsive outbursts

per week to an average of 3 impulsive outbursts per week.

Even though Jeff had been in RTI for two years, no interventions had been implemented

in the classroom. The training provided Teacher A not only with the knowledge and confidence

to be able to implement RTI interventions for Jeff, but also helped Jeff in being able to manage

his own behaviors. These are results that could be seen in other classrooms with other students if teachers were properly trained in the implementation of RTI.

Limitations

Although the research indicated overall positive results, there were 2 major limitations to this study. The first limitation is that only one teacher was chosen for this study. Due to the time constraints with the training program and the inability to create a training schedule that would fit multiple teachers; the study was limited to one teacher in order to continue the program on a specific schedule. Had there been more teachers who received the training program, more data would have been collected on the improvement of the implementation of RTI due to the training program and therefore the results would be more generalizable.

Another limitation of this study was the number of students chosen for the research. Only one student had data collected during baseline and after the implementation of the new RTI intervention. Had more students participated in the study, there would have been more data to determine if there really was a true effect between teacher training in RTI, implementation of evidence-based interventions learned in the training, and students' achievement of their RTI goals. Thus the limited number of participants truly limits the type of research design that could be used to determine if there was a causal relationship and limits the generalizability of the findings.

Implications for Practice

Through the results of this study, it can be inferred that when a teacher receives training for the implementation of RTI he/she can implement effective interventions for students with RTI goals. Therefore, school and county administrators need to ensure that high school teachers are given training on how to appropriately implement RTI and identify evidence-based

interventions to address RTI goals for students at the secondary level. However, if a teacher does not receive official training through his/her school system, he/she might benefit from reviewing the RTI training materials provided by his/her state board of education.

Future Research

This research gave insight into how teachers implement RTI before and after a training program, but due to the fact that only one teacher and one student participated, these findings are very limited. The teacher used in this study was a fairly novice teacher and was not given training related to RTI in her teacher preparation program or by the school system after she was hired. Thus it would be beneficial for research to be done to determine if and when teachers receive training, either in college or within the county education system, related to RTI. Further research is also needed to evaluate teacher effectiveness at implementing RTI at the secondary level.

Another way the field would benefit from future search would be to conduct studies using a larger groups of teachers who have received a training program for RTI implementation and monitoring their implementation of RTI with larger groups of students. Using one teacher in a study produces limited data that is not generalizable. Research conducted with more teachers and students would be able to give a better idea if providing training related to RTI is beneficial for improving outcomes for students with RTI goals at the secondary level.

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Figure 1. Graphed Data of Jeff's Outbursts
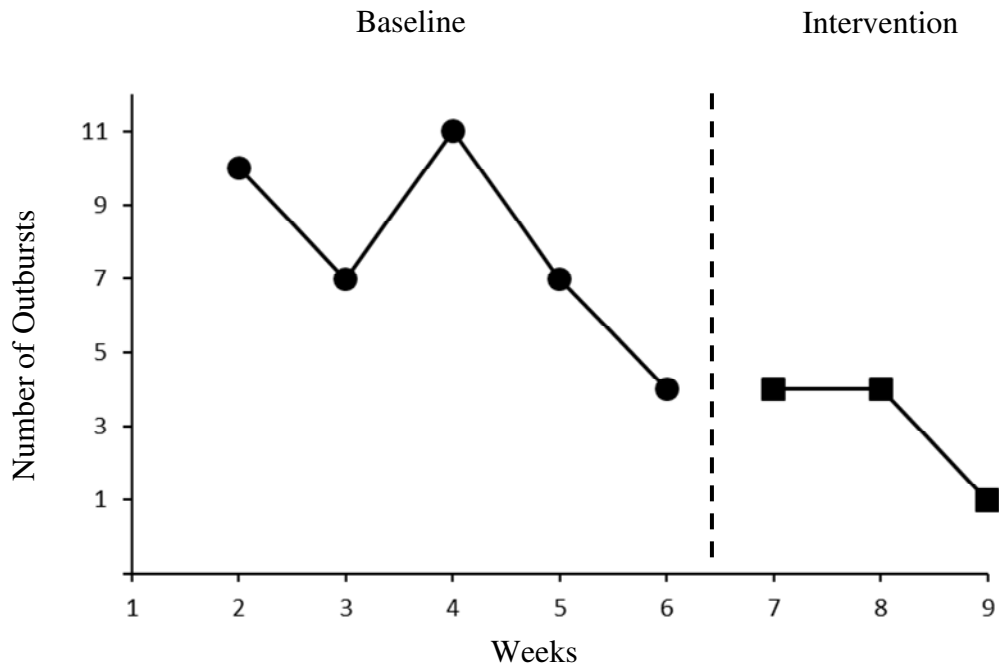
Appendix A

Teacher Pre-Training Survey

1. Have you ever had any training in RTI Implementation? If yes, when and where?

    _____

    _____

    _____

2. Do you feel confident in implementing RTI interventions in the classroom? Why or why

    not?

    _____

    _____

    _____

Appendix B

Teacher Post-Training Survey

1. Did you complete training for RTI Implementation?

   _____

   _____

   _____

2. Do you feel confident in implementing RTI interventions in the classroom? Why or why

   not?

   _____

   _____

   _____

Appendix C

Parent/Guardian Consent Form

I, _____, give permission for my child,

_____, to be a participant in the research "RTI – Training at

the High School Level", which is being conducted by Deborah Strickland, who can be reached at

770-443-1182. I understand that my child's participation is voluntary; I can withdraw my

consent at any time. If I withdraw my consent, my child's data will not be used as part of the

study and will be destroyed.

The following points have been explained to me:

1. The purpose of this study is to note the differences, if any, on the progress of students on their Response to Intervention (RTI) goals after their teacher has received specific training related to implementing RTI.
2. The procedures are as follows: my child will be asked to continue their work in class as normal. Data will be taken on RTI goal progress for the first few weeks of the semester to set a baseline. During this time, teacher will receive specific RTI training. Data will continue to be taken on RTI goal progress the rest of the semester to determine if there is a difference after the teacher has been trained specifically on RTI.
3. You will be asked to sign two identical consent forms. You must return one form to the investigator before the study begins, and you may keep the other consent form for your records.
4. The questions are not intended to be invasive or personal. However, if your child becomes uncomfortable answering any questions, he or she may cease participation at that time.
5. Your child will not likely experience physical, psychological, social, or legal risks beyond those ordinarily encountered in daily life or during the performance of routine examinations or tests by participating in this study.
6. Your child's individual responses will be confidential and will not be release in any individually identifiable form without your prior consent unless required by law.
7. The investigator will answer any further questions about the research (see above telephone number).

8.   In addition to the above, further information, including a full explanation of the purpose of this research, will be provided at the completion of the research project on request.

_____
Signature of Investigator   Date

_____
Signature of Parent or Guardian   Date
(If participant is less than 18 years of age)

■■■
Research at Georgia College & State University involving human participants is carried out under the oversight of the Institutional Review Board. Address questions or problems regarding these activities to Mr. Marc Cardinalli, Director of Legal Affairs, CBX 041, GCSU, (478) 445-2037

Appendix D

Minor Assent Form

I, _____, agree to participate in the

research RTI – Training at the High School Level, which is being conducted by Deborah

Strickland, who can be reached at 770-443-1182. I understand that my participation is voluntary;

I can stop at any time. If I withdraw my consent, my data will not be used as part of the study

and will be destroyed.

The following points have been explained to me:

9.   Data will be taken on Response to Intervention (RTI) goal progress
       before/after teacher RTI training.
10.   My name will not be on the data sheet.
11.   I will be asked to sign two identical consent forms. One form must be
       returned to the investigator before the study begins, and I can keep the
       other consent form.
12.   If I become uncomfortable answering any questions, I can stop
       participating at that time.
13.   I am not putting myself in any more physical, psychological, social, or
       legal danger than I would ordinarily encountered in daily life or during the
       performance of routine examinations or tests.
14.   My information will be kept secret, and no one will know that the answers
       or results are mine, unless I tell them.
15.   If I have any questions about this research, I can ask the researcher by
       calling the telephone number above.
16.   If I want to know more about the research, I can ask for more information.

_____
Signature of Investigator   Date

_____
Signature of Minor Participant   Date

2037

Appendix E

Consent Form

I, _____, agree to participate in the

research "RTI – Training at the High School Level", which is being conducted by Deborah

Strickland, who can be reached at 770-443-1182. I understand that my participation is voluntary;

I can withdraw my consent at any time. If I withdraw my consent, my data will not be used as

part of the study and will be destroyed.

The following points have been explained to me:

17.   The purpose of this study is to note the differences, if any, on the progress
      of students on their Response to Intervention (RTI) goals after teachers
      receive specific training in implementing RTI.
18.   The procedures are as follows: you will be asked to collect data on the
      progress of students with RTI Tier 2 goals. During this time, you will also be
      receiving 3 hours of RTI training. After the training, you will continue to
      collect progress monitoring data for the students on their RTI goals.
19.   You will not list your name on the data sheet. Therefore, the information
      gathered will be confidential.
20.   You will be asked to sign two identical consent forms. You must return one
      form to the investigator before the study begins, and you may keep the
      other consent form for your records.
21.   You may find that some questions are invasive or personal. If you become
      uncomfortable answering any questions, you may cease participation at
      that time.
22.   You are not likely to experience physical, psychological, social, or legal
      risks beyond those ordinarily encountered in daily life or during the
      performance of routine examinations or tests by participating in this study.
23.   Your individual responses will be confidential and will not be release in any
      individually identifiable form without your prior consent unless required by
      law.
24.   The investigator will answer any further questions about the research (see
      above telephone number).

25.   In addition to the above, further information, including a full explanation of the purpose of this research, will be provided at the completion of the research project on request

_____

Signature of Investigator   Date

_____

Signature of Participant   Date

_____

Signature of Parent or Guardian   Date
(If participant is less than 18 years of age)

■■■

Research at Georgia College & State University involving human participants is carried out under the oversight of the Institutional Review Board. Address questions or problems regarding these activities to Mr. Marc Cardinalli, Director of Legal Affairs, CBX 041, GCSU, (478) 445-2037

Appendix F

Response to Intervention: Georgia's Student Achievement Pyramid of Interventions

http://www.doe.k12.ga.us/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/Documents/RTI%20document%20Full%20Text.pdf

Appendix G

Researcher Created Data Collection Form

Goal: Jeff will control his impulsive outbursts in the classroom to no more than 1 per day

Date	Impulsive Outbursts in the Classroom