ABSTRACT

TEACHER PERCEPTION VERSUS TEACHER KNOWLEDGE OF RESPONSE TO INTERVENTION

by Danielle Elizabeth Wilber

Education has gone through several reforms throughout the years to figure out the best way to help our children succeed. One such paradigm shift that we are in the middle of is called Response to Intervention (RtI). This research study assessed the relationship between teacher’s knowledge about RtI and teacher attitude towards RtI. Adapted surveys and a knowledge check were completed by 31 teachers to assess if there was a relationship between the two variables. Pearson Product Moment Correlation did not find a significant correlation between the teachers’ attitude and knowledge of RtI. These results suggest that there may be more that impacts teacher attitudes than just knowledge and these factors must be considered when trying to consider how a teacher may feel about a new educational reform.
TEACHER PERCEPTION VERSUS TEACHER KNOWLEDGE OF RESPONSE TO INTERVENTION

Thesis

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Danielle Elizabeth Wilber
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Advisor: Dr. Jason Abbitt
Reader: Dr. Michael Woodin
Reader: Dr. Geralyn Timler

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by

Danielle Elizabeth Wilber

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Department of School Psychology

__________________________
Dr. Jason Abbitt

__________________________
Dr. Michael Woodin

__________________________
Dr. Geralyn Timler
# Table of Contents

Introduction.......................................................................................................................... 1

Literature Review.................................................................................................................. 2

Uses of Response to Intervention ....................................................................................... 2
Perceptions of Response to Intervention .............................................................................. 3
Knowledge of Response to Intervention ............................................................................. 4
Theories about Attitude.......................................................................................................... 5
Significance of Study............................................................................................................. 6

Methodology .......................................................................................................................... 6

Participants............................................................................................................................. 6
Materials................................................................................................................................. 6
Procedures............................................................................................................................... 7

Data Analysis.......................................................................................................................... 7

Protection of Human Subjects ............................................................................................ 7

Results................................................................................................................................... 8

Limitations.............................................................................................................................. 10

Discussion.............................................................................................................................. 11

Implication for practice.......................................................................................................... 12
Recommendations for Future Research ................................................................................. 12

Attitude Survey...................................................................................................................... 13

Knowledge Check.................................................................................................................. 14

References............................................................................................................................... 16
List of Tables

Table 1: Descriptive Statistics of variables

Table 2: Cronbach’s Alpha Item-Total Statistics

Table 3: Attitude Frequency Table

Table 4: Knowledge Frequency Table

Attitude Survey

Knowledge Check
Introduction

Education and the quality of education remains a popular topic within the United States. It is nearly impossible to turn on the news, open the newspaper, or plug in to social media and not hear something about education, at one point or another. The quality of education is invariably questioned and interrogated, but why? One reason may be the previous models of instruction and interventions. The old model, now commonly called the “discrepancy model,” was perceived to be based around the premise that students in the past would have had to wait to “fail” a certain amount before they would ever be able to be assessed to qualify for receiving appropriate support services. The model was perceived to waste a great deal of time that could be used to help the student. As a result, students fall behind and often have a difficulty catching back up once they receive services, if they ever do, according to those who portray the Discrepancy Model in this light. After seeing this perception of the discrepancy model time after time along with the lack of documentation regarding progress in special education, researchers and school personnel decided that something needed to change, which brought about the Response to Intervention (RtI) Model (Brown-Chidsey & Steege, 2010).

RtI is a general education initiative, which means that it is service delivery system that is supposed to be accomplished within the regular education classrooms making up the core of a particular school or school district. According to Brown-Chidsey & Steege (2010, p.12), RTI is an “assessment and intervention model that enables schools to deliver sound instructional methods to students who might fall through the cracks.” This model is composed of three tiers of instruction. The first tier is instruction that is given to all of the students and is scientifically based. Not all students, though, will be successful within this tier—some children will not be responsive to the interventions as given. In fact, roughly 80% will be successful, and therefore, some will need to move up to Tier 2 (Brown-Chidsey, et. al, 2010). These students will receive different interventions, more time on the interventions used, intervention modifications, and/or differing forms or amounts of instruction in order to meet their learning goals. It is important to keep in mind that these students receive Tier 2 interventions in accordance with the Tier 1 instruction (Brown-Chidsey & Steege, 2010; Fuchs & Fuchs, 2006; Vaughn, Wanzek, Woodruff, Linan-Thompson, 2006). This means that students will receive additional support at the Tier 2 level, as well as receiving the same scientifically based instruction in Tier 1. At the Tier 2 level, students receive small group interventions with their peers in order to help put them on the same level as their Tier 1 peers. Tier 2 is in place to provide students more intensive instruction along with peers who are struggling in the same ways. The next and last level is Tier 3. This Tier is thought to account for 2-5% of the student population (Brown-Chidsey, et. al, 2010). These at-risk students were unable to succeed through provision of either Tier 1 or Tier 2 interventions, and as such, require intervention modifications, new interventions, or increased instructional time to help them operate on the same playing field as their peers. It is important to keep in mind that Tier 3 is not a special education service, but rather another chance for students who are struggling to remain on the same playing field before implementing an Individualized Education Plan (IEP). The goal of the RTI model is to provide all students with the early interventions they may need so that at-risk students can return to the general curriculum whereby they can be provided with equal opportunities to succeed in school (Brown-Chidsey, et. al, 2010).

Many public schools today are attempting to align with and implement RtI within their districts. As such, it would seem that most teachers and other school professionals should be on
board with the method; however, communications with many teachers reveal that some feelings of inadequacy and uncertainty remain with the RTI system (Pyle, Wade-Woolley, & Hutchinson, 2011). Such feelings may be a result of the absence of knowledge or understanding of how this model works within the school system. It is important to understand whether the negative attitude towards RTI is due to lack of understanding or due to a true dislike for the model so that it can be assured that the model is implemented effectively or new models can be developed. The research question for this study examined whether there is a correlation between Response to Intervention attitudes and knowledge of the model. Research has shown that special educators felt that general education teachers in their school did not understand RTI and therefore did not understand the purpose of RTI for the school (Sanger, Friedli, Brunken, Snow, & Ritzman, 2012). The hypothesis of this study is that a deficiency of knowledge on the RtI model is related to the perception of how effective RtI can be implemented.

Literature Review

The following literature review goes through a variety of theories and ideas that support the idea that there is a correlation between perceptions of RtI and knowledge of RtI. It will be shown that RtI helps schools remain compliant with laws such as No Child Left Behind, as well as the uses of RtI in the school systems. In detail, different perceptions from different school personnel will be shared and demonstrate the importance of understanding teacher perception. The review will also denote how crucial understanding not only teacher knowledge of RtI is, but also how teachers understand RtI. Lastly, the theory behind the relationship between perceptions and knowledge will be explained.

In their influential book on RTI, VanDerHeyden and Burns (2010) indicate that for a new initiative in education to be proven effective, it must be able to do three things; “be preventative, demonstrate effectiveness, and demonstrate effectiveness of implementation on a wide-scale basis.” (p. 22) Researchers then showed how RTI was able to do all three of those things and therefore should be effective. They also asserted that Response to Intervention has the ability to become exceedingly successful, if it is effectively taught through workshops, classes, and includes parents and the community in the implementation and maintenance of the model (VanDerHeyden et al., 2010).

Educators should be compliant with the passing of IDEA and the No Child Left Behind (NCLB) act that call for scientifically based or research-based instruction. Brown-Chidsey & Steege (2010) talk about using scientifically based instruction in the classroom and, in particular, focuses on how under the NCLB Act, there is support to use scientifically based instruction in reading, such as, Response to Intervention. NCLB also supports the need for prevention at all grade levels, which is part of the Response to Intervention model (Brown-Chidsey et al., 2010). Brown-Chidsey et al (2010), discuss the research that shows scientifically based instruction can be applied to all areas of academics. This information shows a reader that not only does Response to Intervention have research to back it up, but is also supported by Federal Acts.

Uses of Response to Intervention

To appreciate why it is important that teachers comprehend and have positive attitudes of the RTI model, it is imperative that teacher’s clearly understand how the model can be used in their classrooms and how effective it is as a working approach in schools. The model is used for a variety of academic troubles, especially specific learning disabilities, which is the most common identified IDEA (Individual with Disabilities Act 2004) category (U.S. Department of
Education, 2013, Table 204.30). Research shows that students with specific learning disabilities score higher on cognitive assessments when placed within the RTI model than when retained (Keller-Margulis & Gischlar, 2014). This is important to keep in mind, since students who are held back have a higher rate of dropping out of school later on (Stearns, Moller, Blau, & Potochnick, 2007).

Most people who know of the RTI model usually associate it with provision of academic interventions, but the model has also been designed for use with students who are at risk or in significant need of intervention due to behavioral and socioemotional problems. It can also be used to serve students who do not qualify for special education services. In addition, the model can be used to help students who primarily struggle with behavioral problems participate in interventions that might not otherwise be received. Research has shown that students who had behavioral problems benefited greatly from early and specialized interventions (Saeki et al., 2011). The model has been thought to have the ability to even help students who prove to be more difficult than others due to RTI’s ability to be individualized yet still standardized in its methodology (Fairbanks, Sugai, Guardino, Lathrop, 2007).

Response to Intervention is mainly used to help teachers better understand and thus, serve the needs of their students. What many do not think of, though, is how RTI can be used to increase communication among school personnel. Research has shown that there are two characteristics that are “predictive of being an effective leader, one of which is being able to communicate well with others,” (Gilley, Gilley, & McMillan, 2009). Response to intervention makes communication easier among school personnel with the ability to compare data, have an understanding of what that data actually means and how it can be used (Fairbanks, et. Al, 2007). In order for this to work, we have to make sure that teachers understand how the model works and that their understanding or lack of understanding does not negate their perception of the model. Perceptions of Response to Intervention

What kinds of things make teachers and other faculty members have positive perceptions of education models? Often school personnel want a model that will help them do their job more effectively as well as something that does not take up too much of their limited time. Stuart, Rinaldi, and Higgins-Averill (2011) conducted a study on implementing RTI within a school system. Throughout a 2-year period, the researchers helped implement the model and then interviewed the participants through focus groups and individual interviews. They discovered several broad trends that showed a more positive attitude toward RTI during the second year of implementation. One of the broad trends was that time was used more efficiently in several aspects of the educational field, such as the special education referral process and efficiency of progress monitoring. Teachers are always searching for ways to decrease amount of time spent doing tedious tasks. If teachers learn how to execute the RTI model correctly then they can be more efficient with their time.

School personnel, such as assistant principals and guidance counselors, are vital to how each school system operates within a district. It is important that these professions also have high opinions of the acceptability and success of the RTI model. Research has found that many of these school personnel, including the counselor, play a huge role in not only implementing the model, but seeing that it runs smoothly (Ryan, Kaffenberger, & Carroll, 2011). After working with the model for some time, school personnel found that they believed that the RTI model added structure to interventions and met the needs of the students (Martinez & Young, 2011).
must be noted that these perceptions were not made until school personnel were made more aware of the model through specific and targeted training (Martinez & Young, 2011).

Principals’ perceptions of the Response to Intervention model are important as well, because they will directly dictate if and how the model will be implemented. It has even been found that “principals are also in charge of seeing that the model runs efficiently and that they tie everything together” (Bernard, 2012). Sansosti, Noltemeyer, and Goss (2010) found that 476 principals of secondary schools on average perceived many factors of Response to Intervention to be important, but hard to implement due to lack of availability. This finding underscores the need for research that examines teacher knowledge and attitudes about RtI.

Special education teachers contribute significantly to the model as well. This is because they serve students who need help beyond the third tier, help in the planning stages, and also possibly assist with the delivery of interventions. With the vast amount of duties that they hold it is important that they hold a high perception of the RTI model. Swanson, Solis, Ciullo, and McKenna (2012) interviewed special educators on their perceptions of Response to Intervention that had received additional training on RTI. This study revealed that after specialized training, special education teachers had higher praise for the Response to Intervention model than those who did not receive the training (Swanson et al., 2012).

Sometimes a model needs a little bit of time in order for it to gain optimistic acuities. Stuart, Rinaldi, and Higgins-Averill (2011) found that teachers have a more positive outlook of the model after the second year of its implementation. Research has also found that some teachers need to simply see the model in action to speak highly of the model (Greenfield, Rinaldi, Proctor, & Cardarelli, 2010). In reality, however, schools may not have the luxury of time to find such answers, so it is imperative to find out now how teacher perceptions impact subsequent performance of the model.

With schools growing more diverse it is important that teacher understand how the model will work with students of different cultures. In a recent study, researchers found that teachers working with diverse students felt as though there were too many barriers for RTI to become effective (Castro-Villarreal, Rodriguez, & Moore, 2014). This may have been related to the fact that there was another overarching theme that the teachers received inadequate training and therefore did not understand how the model worked (Castro-Villarreal et al., 2014).

It is also important to examine perceptions of the teachers and other faculty members in order to determine what improvements need to be made, the amount of knowledge they have about the model, and how that model affects their perceptions. White, Polly, and Audette (2012) found that when some teachers reported more positive perceptions after learning and implementing the model, they had some suggestions on how to individualize the model to fit better with their school. This shows us not only that positive perceptions and having knowledge make the model work better, but it also can help teachers and other faculty members come up with ways to make a program more individualized for their own needs.

Knowledge of Response to Intervention

Part of the problem that general educators have with understanding how Response to Intervention functions, is that they are not sure who is in charge of enacting out the model; general educators or special education teachers? Studies have shown that most articles and journals about RTI are aimed towards special educators even though general education teachers mainly implement the two thirds of the model (Hazeltorn, Bucholz, Goodman, Duffy, & Brady, 2011). Other research shows that there is evidence that the groups of people who wrote the No
Child Left Behind and the Individuals with Disabilities Education Act (IDEA) have differing and confusing opinions on whether or not the third tier is special education or not (Fuchs, Fuchs, & Stecker, 2010). If laws are not clear, how can we expect teachers with little experience in RTI to understand how the model works?

The type and quality of training that teachers receive while they are in their undergraduate years is vital to the quality of their instruction. If a teacher is unaware of the new models that are being implemented, then it is unlikely he or she will be able to effectively put them in place when asked to do so in their future careers. Therefore, it is rather important that preservice teachers learn about and have exposure to the Response to Intervention model. Weishaar, Fuchs, and Williams (2012) found that preservice teachers within the special education department had the highest percentage of candidates who felt that they knew the RTI model, whereas elementary preservice teachers had the lowest percentage. This is discouraging because as already discussed general education teachers, especially at the elementary level, are responsible for the majority of the model. Such research will help school administrators and colleges of education understand the importance of training in current models for preservice, and new, first-year teachers.

With any new model, like Response to Intervention, there is a need to have a sufficient amount of workshops, informational sessions, coaching, follow-up support, etc. provided, so that it can be implemented effectively. If these things are not provided, then teachers and other professionals lack the proper knowledge to instigate such a change in the school systems. Spear-Swerling, and Cheesman (2012) decided to do a research study to see how much teachers knew about in comparison to their years of experience, amount of time around the model, and their professional backgrounds. The results demonstrate that teachers with more experience in Response to Intervention had a better idea of how to implement such a model, and what the basic components of the model were (Spear-Swerling, 2012).

Having verbatim knowledge of the RTI model however is not enough; you must understand what each part of the model means and what it is able to do for the student. Research has found that teachers can recite the legal jargon of RTI, but are unable to make sense of what those terms mean (Benjamin, 2011). Other research has also found that many teachers knew the basics for the Response to Intervention model; many did not understand the purpose of many interventions or assessments such as, Curriculum Based Measures (Spear-Swerling et al., 2012). This shows how important it is to not only to teach how to implement the model, but to also show the reasoning behind each step of the model.

Theories about Attitude

Behind the basis of this research is the idea that human behavior is affected by attitudes. Theory of Planned Behavior supports the idea that attitudes affect whether a behavior will be performed. One of the three variables used to predict a behavior is positive attitudes towards the behavior (Ajzen, 1991). When there is more positive attitude toward the behavior then it is more likely that the person will have the intention to perform the behavior and then subsequently, one will actually enact such a behavior.

This applies to the current research since the study is to see if there is a relationship between a teacher’s “positive attitude” and their knowledge of RtI. Several studies have found a correlation between knowledge and attitude in different areas of research (Bradley, Waliczek, and Zajicek, 1999; Sung, Huang, & Lin, 2015; Atkinson, 2011). This study aims to examine whether the same correlation exists between teacher knowledge and attitude of RtI. If that is the
case than we can assume that promoting more knowledge will promote a positive attitude, which will increase the likelihood that teachers will “perform the behavior” or implement RtI.

Significance of Study

This literature review shows that research exists about teacher’s perceptions of RTI, and how much teachers know about the model. However, what is missing is how the knowledge that teachers have about the Response to Intervention model is related to how different teachers perceive the model. It is possible that lack of knowledge could lead to negative perceptions of the model, which would lead to unlikelihood of performing the RTI according to the Theory of Planned Behavior. The purpose of this study is to see if there is a relation between teacher attitudes towards RTI and their knowledge of the model. Doing such a research study could have implications for how schools decide to implement the model and how they inform teachers about the model.

Methodology

Participants

The participants in this study were elementary and middle school teachers from the Cincinnati area. The sample was chosen through convenience sampling. Contacts were made between the researcher and either the principal or a teacher at the school to send out the survey to fellow staff members. No descriptive data was collected to assess their age, gender, or specific grade level taught. All of the data that was collected was quantitative data since the data were from surveys with a Likert scale and questionnaires that had multiple choice questions.

Materials

Teacher perception was measured by a survey that was adapted from two different research surveys. The first research survey was created for a study that looked into the perception teachers had about Merit Pay (Jackson, Langheinrich, & Loth, 2012). The survey asked teachers for their perceptions of their performance, student achievement, collaboration, and evaluation as a result of merit pay. Items were chosen for this study, because the instrument was developed to directly measure teachers’ perceptions and attitudes. Survey items were altered to reflect perceptions of RTI versus merit pay by exchanging the words for one another.

The second survey, adapted for the Teacher perception survey, was from a research study dealing with teachers’ acceptance of specific interventions (Reichert, 2007). Statements in this survey asked teachers to rate in their opinion how well the intervention would fit in a classroom, how reasonable the survey is, and how acceptable the intervention is to the teacher. These items were chosen because they directly relate Survey items were altered to reflect the RTI model instead of interventions in general.

Teachers’ knowledge of RtI was assessed by a questionnaire which was adapted from an original quiz by Arizona’s Department of Education. Arizona’s Department of Education produced an online professional development series about RTI for all types of educators (Arizona’s Department of Education). Slides and content quizzes were provided on the site. Arizona’s Department of Education was contacted and permission was given to use both the slides and the quiz questions. Questions from the quizzes were selected to be used a part of the instrument for the knowledge quiz. These questions were chosen based on the fact that they can ask teachers applicable knowledge about RTI, along with some of the basic facts of RTI.

Since these measures are derived from a variety of research studies and different departments, the measures were tested for internal consistency to see if the instruments measure
what was expected. This was done through a pilot expert assessment, made up of students from an educational psychology course and faculty members from Miami University’s College of Education, Health, and Society. The students were used to assess readability and understandability of the questions. The faculty member was selected based on their expertise in the RTI model. Any confusion or discrepancies that were found were addressed and necessary changes were made.

**Procedures**

Seven emails were sent to seven school administrator throughout the Cincinnati area asking about their willingness to participate in the study. Three of the administrators informed the researcher that they would be unable to participate in the study due to high stakes testing. The other four administrators did not respond to the researcher’s email. Two more administrators were contacted in an effort to get participants for the research study. Both of these administrators agreed to participate in the study. One person from each school was sent a link to the survey and knowledge questionnaire on Qualtrics, and that person sent the link to the rest of the school.

There were three instruments within the link: a sheet with information and directions about the research, researcher, and ensuring the anonymity of their answers, the perception survey, and the assessment of teachers’ knowledge of RTI. The teachers were first asked to complete the attitude survey. After that was completed, they were then asked to complete the knowledge questionnaire portion of the study. After completing the survey, the subjects were thanked for their time and cooperation, and were reassured that their answers would remain anonymous.

**Data Analysis**

Once all of the data was collected on Qualtrics, it was downloaded from the site and analyzed in SPSS. After looking through the descriptive statistics, the data gathered from the attitude survey was analyzed for internal consistency by finding the Cronbach’s Alpha. A Cronbach’s Alpha of .700 or higher was considered acceptable. The data was then tested for normality to determine which correlation test would be used. After running the respective correlation test, the data was analyzed for significance. If significance was found, then the Correlation Coefficient was to be looked at. When looking at the Correlation Coefficient a small correlation would be between .1 and .299, a medium correlation between .3 and .499, and a large correlation between .5 and 1 (Laerd Statistics).

There were also some guidelines that needed to be followed in order to complete this statistical test. The guidelines were that the data must be normally distributed, there is a linear relationship between the two variables, there is homoscedasticity of the data, and outliers are removed from the set entirely. These guidelines were followed or checked before analyzing the data and interpreting the results.

**Protection of Human Subjects**

The participants in this research study were protected throughout the entirety of the study. The researcher of this study did not have access to the names, gender, race, etc. of the participants because they were not being asked to provide that information. This helped assure participants that their response to both the perception survey and the knowledge of RTI questionnaire were not being compromised. The hope of this protection was that participants
would feel free to answer how they wish without worrying about being criticized for their beliefs or knowledge of the Response to Intervention model.

The survey and questionnaire also had the capability to be taken in the home of the participants. This helped participants and the researcher be assured that no other participant or colleague would be able to see their answer unless they wanted to talk about it themselves. Being able to take the survey and questionnaire at home also prevented employers from looking over the participant’s’ shoulders to find out their attitudes or knowledge toward the model. Since employers were not be able to see the participant’s responses, the participants did not feel pressured to answer a certain way in order to please their boss or ensure job security.

Results

Table 1 displays the descriptive statistics for the two variables, which included the mean, standard deviation, and range. The mean attitude scale score for the sample was 3.55, which indicates that most scores fell between two answers, neutral and agree. The mean for the knowledge check was 6.68, which indicates that most participants got 6 to 7 out of 10 of the questions correct on the knowledge check.

Table 1
Descriptive Statistics of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Scale</td>
<td>31</td>
<td>3.55</td>
<td>.535</td>
<td>2</td>
</tr>
<tr>
<td>Knowledge Check</td>
<td>31</td>
<td>6.68</td>
<td>1.33</td>
<td>6</td>
</tr>
</tbody>
</table>

Next, a Cronbach’s Alpha was performed to see if there was internal consistency within the Attitude Likert Scale. The results showed that the Attitude Likert Scale had an acceptable, .760, internal consistency with this specific sample. A part of the Cronbach’s Alpha results show how much the Alpha would increase or decrease by if an item were removed from the scale (Table 2). As a result of this, item 5 was shown to improve the Cronbach’s Alpha if removed by .014. The researcher determined this was not a significant amount to change the results of the study, so the item was kept in with the rest of the survey.

Table 2
Cronbach’s Alpha Item-Total Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha if item were deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Motivated to implement RTI in classroom</td>
<td>.696</td>
</tr>
<tr>
<td>2) RTI is too intrusive for most regular education classrooms</td>
<td>.704</td>
</tr>
<tr>
<td>3) RTI fits my beliefs/philosophies in how to help students</td>
<td>.712</td>
</tr>
</tbody>
</table>
4) Amount of time to implement RTI is acceptable .715

5) RTI has the ability to increase achievement in school .774

6) I believe I have collaborated more because of RTI .751

7) View of RTI has had a positive change since implemented .749

A frequency table for the Attitude Scale (Table 3) is provided to help better understand the data presented. The scale was from 1 to 5, 1 being strongly disagree and 5 being strongly agree. On average, the most agreed upon statement about RTI was “RTI fits my beliefs/philosophies in how to help students,” with a mean of 4.29. The most disagreed upon statement on average was statement 6, “I believe I have collaborated more because of RTI,” with a mean of 2.81. This is with keeping in mind that statement 2 (RTI is too intrusive for most regular education classrooms) is an inverse statement. Statement 6 also had the highest standard deviation of almost one whole rating (.990).

<table>
<thead>
<tr>
<th>Item (Std. Deviation)</th>
<th>Mean</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (.795)</td>
<td>3.74</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>2 (.873)</td>
<td>2.19</td>
<td>6</td>
<td>16</td>
<td>6</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>3 (.739)</td>
<td>4.29</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>4 (.836)</td>
<td>2.97</td>
<td>0</td>
<td>11</td>
<td>10</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>5 (.629)</td>
<td>4.07</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>6 (.990)</td>
<td>2.81</td>
<td>3</td>
<td>8</td>
<td>13</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>7 (.831)</td>
<td>2.94</td>
<td>2</td>
<td>5</td>
<td>17</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

A frequency table is also provided for the Knowledge Questionnaire (Table 4) to ease understanding of information. Each question was scored as either correct or incorrect with a numerical value in SPSS of 1(Correct) or 0 (Incorrect). There were three questions that had the
highest percentage of correct responses; RtI apply to behavior, RtI fosters outcomes for which students, and if RtI was a special education initiative only. The one question that the most people missed was about the federal legislation that correlated with RtI.

Table 4

<table>
<thead>
<tr>
<th>Item</th>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Uses of RtI data</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>2) Percentage of students at benchmark</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>3) Components of defining a problem</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>4) RtI apply to behavior</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>5) Purpose of Universal Screening</td>
<td>28</td>
<td>3</td>
</tr>
<tr>
<td>6) Purpose of Progress Monitoring</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>7) Fostering outcomes for which students</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>8) Legislation that promotes RtI</td>
<td>7</td>
<td>24</td>
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<tr>
<td>9) Only a special education initiative</td>
<td>30</td>
<td>1</td>
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<td>10) Tiers of RtI</td>
<td>26</td>
<td>5</td>
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After assessing the Cronbach’s Alpha, a test of normality was performed in order to assess which test would be used to determine if there was a correlation was between teacher’s attitudes toward RtI and teacher’s knowledge about the initiative RtI. The Shapiro-Wilks test of normality showed that the data was not normally distributed so a Spearman correlation analysis was conducted. The results showed that there was not a significant correlation, \( r = .220, n = 31, p > .05 \), between teacher attitudes and teacher knowledge of RtI.

**Limitations**

This study has several limitations that should be mentioned as they could have had an influence on the current results. First, which was previously mentioned, was the assumption that knowledge could have been the strongest predictor of an attitude or perception.
Another limitation of this study was the size of the sample. Due to the timing of this study, many teachers and schools were unable to take time to participate in this study due to state assessments and other commitments, leaving us with a sample size of 31. A sample size of 31 is a small and not an accurate representation of the population of teachers who interact with RTI or have at least heard of RTI. A bigger sample size may have provided us with a better understanding of the population of teachers’ general attitude and understanding of RTI.

A second limitation is that a convenience sample was used. The small sample came from a suburban school with only some experience of RTI, which could have altered the results. The school from which the participants came from seemed to understand what RTI was, but was unsure if or how they were implementing the model.

A final limitation to consider would be the materials themselves. The materials used in this study were adapted from previous studies. Although a pilot run was done using these materials, the language of the materials could have been confusing to some of the participants. The materials could have also conveyed a different message than intended and therefore provided a different response.

Discussion

The hypothesis investigated in this study was that the amount of knowledge teachers had about Response to Intervention (RTI) would significantly correlate with high perceptions of RTI. Results indicate that teacher knowledge of RTI does not significantly correlate with perceptions of RTI. The literature tells us that many things can affect how we form our perceptions towards a particular idea, and knowledge of that topic is only a small part of what forms a person’s perception. For example, perceptions can be created from a person’s experience (Meyers, 1999; Katz). Hypothetically if a person had a terrible experience with RTI, then their attitude towards RTI could be negative, even with having sufficient knowledge of RTI. Another factor that can affect a person’s perception are social factors (Meyers, 1999). If a school’s climate is very accepting of RTI and are promoting it to their teachers, then the positive social factor of RTI could improve perceptions of RTI without sufficient knowledge of the model. With this being said, it is important to consider these factors when looking into what affects a teacher’s perception toward any education model, including RTI.

The attitude frequency table above (Table 3) shows that over half of the participants responded “disagree” or “neutral” to the statement “I find the amount of time to implement RTI to be acceptable.” Research tells us that teachers are more likely to implement and have a positive attitude towards a model if they believe it will decrease time in one area or another (Rinaldi & Higgins-Averill, 2011). Since participants in this study did not feel as though RTI could be implemented in a sufficient amount of time, this could be why other statements were poorly rated (more collaboration with teachers and positive change of view once RTI implemented at their school).

By looking at the knowledge check frequency table (Table 4) we can tell that the two questions participants missed the most were questions that dealt with rote knowledge, or something the participants had to memorize verbatim. Having knowledge of a model though is more than memorization of facts; it is also understanding about how to apply the knowledge in a variety of settings (Benjamin, 2011). The data appears to show that participants had a harder time with questions where the answer more or less had to be memorized when learning about RTI, which could have affected the results of the study.
Implication for practice

The main implication from this study was that knowledge is not the only factor that can determine a teacher’s perception or attitude toward an educational model, specifically RTI. According to Turnbull, other factors can play a role in teacher “buy-in” to a school reform like RTI. The researcher stated that elements like sufficient resources and administration buy in can affect how teachers perceive the model (Turnbull, 2001). Limited resources along with lack of knowledge can negatively affect a teacher’s perception of RTI and these are things that need to kept in mind if you want to successfully implement RTI or any school reform.

Having insufficient resources and administration buy in are not the only things that can affect having a negative perception. The idea behind Katz’s functional approach to attitude is that knowledge provides our attitudes with some organization and structure, but this is only one part of the theory (1971). Other ideas that form our attitudes according to Katz are our values and anything that rewards or aides that attitude (Katz & Kahn, 1978). Attitudes can also be formed from our previous experiences and being conditioned to feel a certain way (Staats, C. & Staats A., 1958). According to research by Cacioppo, Marshall-Goodell, Tassinary, & Petty conditioning of an attitude is more effective when there is a lack of prior knowledge (1992). All of the presented research demonstrates how knowledge is not the only factor that affects an attitude, but rather there is a multitude of factors. These factors should not only be kept in mind when trying to present a new educational reform, but also kept in mind with different aspects regarding education.

Recommendations for Future Research

As we have learned, perceptions and attitudes are formed by a variety of factors. By singling out the knowledge factor in this study, the study failed to consider the vast majority of factors that could have caused any perception towards RTI. The questionnaire could have included more questions in regards to these other factors, such as school climate towards RTI, previous experiences with RTI, current level of experience with RTI, etc. After including such factors, the study could have then looked further into seeing how much these various factors influenced RTI, versus just knowledge of RTI.

Since the researcher experienced difficulty ascertaining participants for the study, it could be recommended that the geographical area for participant recruitment be to see if more participants can be gathered. For example, this study focused on teachers in schools within the Cincinnati area. The study could be expanded throughout the state of Ohio. It could also be taken out of the state to see how teachers from different states perceive RtI in relation to teachers in Ohio. This could give researchers a better idea of if there is a correlation between perception and knowledge of RtI.

Future research could compare general education teachers to special education teachers. The hope for RtI is that both types of teachers would have a strong correlation, but it is probable that special education teachers would produce a higher positive correlation because of their training. This could help show universities the importance of better training general education teachers in the practice of RtI since they are the ones who are instructed to implement the idea.
Attitude Survey
Please answer the following questions by checking your answer?

1. I would be motivated to implement Response to Intervention (RTI) with my classroom
   __Strongly Disagree __Disagree __Neutral __Agree __Strongly Agree

2. I believe that RTI is too intrusive for most regular education classrooms.
   __Strongly Disagree __Disagree __Neutral __Agree __Strongly Agree

3. I would use RTI in my class because it fits my beliefs/philosophies in how to help students with learning disabilities.
   __Strongly Disagree __Disagree __Neutral __Agree __Strongly Agree

4. I find the amount of time to implement RTI to be acceptable.
   __Strongly Disagree __Disagree __Neutral __Agree __Strongly Agree

5. RTI has the ability to increase student achievement in my school.
   __Strongly Disagree __Disagree __Neutral __Agree __Strongly Agree

6. I believe I have collaborated more with other teachers due to RTI.
   __Strongly Disagree __Disagree __Neutral __Agree __Strongly Agree

7. My view on RTI has had a positive change since RTI was implemented.
   __Strongly Disagree __Disagree __Neutral __Agree __Strongly Agree
Knowledge Check
Please respond to the items below regarding the Response to Intervention (RTI) model. If you do not know the answer to an item, please leave that item blank.

1) Please check all the ways data can be used in Response to Intervention (RTI) to:
   a. Analyze school data for strengths and weaknesses
   b. Monitor students’ progress.
   c. To check if changes in the instructional program are effective
   d. Assess teacher performance for merit pay increases

2) What percentage of the students must be at benchmark in order for the core/universal curriculum to be considered successful
   a. 50%
   b. 60%
   c. 70%
   d. 80%
   e. 90%
   f. 100%

3) Please check all of the necessary components in defining a problem
   a. Described in data based, observable, and descriptive terms
   b. Measurable
   c. Focused only on increasing academic performance
   d. Specific

4) The RTI model does not apply to student behavior.
   a. True
   b. False

5) The purpose of universal screening in RTI is:
   a. So a school can ability group its core classrooms
   b. So teachers know which students are going to fail their class
   c. To identify students who are at risk of failure
   d. To help the principal identify problem kids
   e. To identify areas of need for additional funding

6) The purpose of progress monitoring is to:
   a. Determine if a student is going to be able to move on to the next grade
b. Measure performance level student for summative assessment
c. Determine if a student is making adequate growth towards his or her goals
d. Determine if a student is below district benchmark and qualifies for special education
e. All of the above

7) RTI is a systematic method for evaluating the needs and fostering positive student outcomes of:
   a. Students with disabilities
   b. Students with behavioral problems
   c. All students

8) Federal Legislation that promotes RTI is/are
   a. Individual with Disabilities Education Act
   b. Family Educational Rights and Privacy Act
   c. Elementary and Secondary Education Act (NCLB)
   d. Equal Educational Opportunities
   e. A and C
   f. All of the above

9) RTI is only a special education initiative
   a. True
   b. False

10) The tiers in RTI are:
   a. Tier 1 Core, Tier 2 Title 1, Tier 3 special education
   b. Tier 1 Universal, Tier 2 Targeted, Tier 3 Intensive
   c. Tier 1 All students, Tier 2 Struggling Students, Tier 3 Disabled students
   d. Tier 1 Elementary, Tier 2 Middle, Tier 3 Secondary
References


