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Teacher Training for “Response to Intervention” at a Midwest University

by

LaDonna Jean Barnett

A Dissertation submitted to the Education Faculty of Lindenwood University

in partial fulfillment of the requirements for the

Degree of

Doctor of Education

School of Education

Teacher Training for "Response to Intervention" at a Midwest University

by

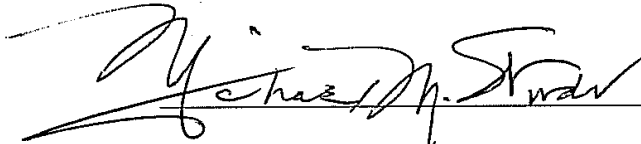
LaDonna Jean Barnett

This dissertation has been approved in partial fulfillment of the requirements for the

Degree of

Doctor of Education

at Lindenwood University by the School of Education



12/14/12

Dr. Michael Woods, Dissertation Chair

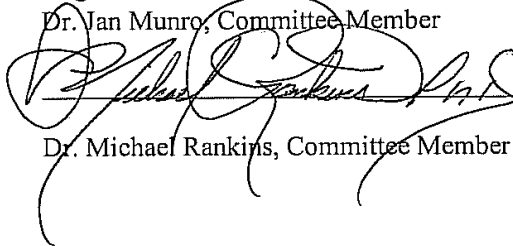
Date



12-14-12

Dr. Jan Munro, Committee Member

Date



12-14-12

Dr. Michael Rankins, Committee Member

Date

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: LaDonna Jean Barnett

Signature: LaDonna J. Barnett Date: 12/14/2012

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## **Abstract**

The compelling force behind education is improving teacher quality. This research study was designed to find out how improving teacher quality in terms of RTI knowledge occurred at differing levels of instruction and how faculty perceived the changing role of general education teachers and administrators with regard to RTI. Participants in the study included 13 faculty instructors and 196 of their students. Instructors had experience ranging from three to 14 years and experience in public school settings varied from eight to 17 years teaching K-12 and from four to 20 years as administrators. The instrumentation and data collection consisted of the administration of a student survey and face-to-face interviews with education administrator students and faculty. This was a descriptive mixed methods study. For the quantitative phase, I used SPSS 21 to collate descriptive data and then to explore relationships among variables. The survey contained (a) Likert-style questions, with the resulting data classified as nominal or scalar; (b) questions that produced nominal data; and (c) questions that produced binary data. Descriptive data were provided for each variable based on its measurement level. Frequencies for each nominal variable were generated. Qualitative analysis showed that student teachers and administrators were learning about RTI, but apart from education majors, not through their coursework. Awareness of RTI correlated positively with the perceived effect of not being instructed in RTI; however, knowing more did not correlate with perceiving RTI to be important.

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## Chapter 1: Introduction

Twins, triplets, quads, no two children are alike, even within the same family. Each child develops his own personal attributes and demeanor. During the preschool years, from birth to three, a child meets many developmental milestones: physical skills, such as crawling, walking, and running, and social and cognitive thinking skills (American Academy of Pediatrics, 2011). Specific cognitive thinking skills are expected by the time a child enters preschool at three to five years of age: sorting objects by shapes and color, matching objects, completing three to four piece puzzles, etc. By this time most children have reached milestones in movement, hand and finger skills, language, and social and emotional development. By school age, each unique child has exhibited a learning style, acquired a brain pattern, and established background knowledge, cognitive skills, work habits, interests, and strengths (Hall & Jensen, 2008). With all of this in mind, every child in the United States has a right to access a free appropriate public education. One might ask, what does “appropriate” mean? Alternatively, who decides what is appropriate? The Individuals with Disabilities Education Act (IDEA) defines “appropriate” as “whatever is suitable, fitting or right for a specific child, given that child’s specific strengths, established goals, and the supports and services that will be provided to help the child reach those goals” (National Dissemination Center for Children with Disabilities, 2009, p. 4). Any parent or guardian of a child sends that child to school, any school, (public, private or charter), with the expectation of him or her having an “opportunity to learn” (Jenkins, 2004, p. 31) from outstanding teachers and excellent educational opportunities.

In a typical classroom setting, there is a teacher and approximately 20 individual learners. In this environment, the teacher presents lessons in a variety of ways; visual aids, direct instruction, cooperative learning, etc. Each person in the classroom setting, including the teacher, has a preferred method of learning. Precisely for this reason educators need more than one way to teach students: because each child learns uniquely (Vang, 2005). Some students learn using more “hands-on” strategies (kinesthetically), while others learn visually. Some students in a classroom could be auditory learners. Regardless of a child’s learning style, the responsibility of the classroom teacher is to create a learning community designed for all to succeed. According to Hall, who is not only an educational theorist and researcher but also an elementary school principal, agrees that these differences in learning styles make meeting the individualized needs of every child quite challenging (Hall & Jensen, 2008). Schools must match the instruction they provide to the needs of all learners; “...even though they are not disabled, some children require instructional modifications to keep up with their grade level peers and benefit from good classroom instruction” (Lose, 2008, p. 20). Student response and participation increases “when teachers understand students’ learning styles and adjust their teaching to those styles” (LeFever, 2004, p. 11). Teaching to styles allows the teacher to have an impact on everyone in the classroom.

Educators have abundant influence on the achievement of student learners. Vang (2005), an assistant professor of teacher education, stated, “Quality teachers who deliver meaningful instruction have great influence on student learning and success” (p. 9). The President and CEO of the American Association of Colleges for Teacher Education (AACTE, 2011), Robinson, Ed.D, acknowledged “...a clear need to prepare educators



who can adeptly facilitate learning among the growing diversity of our nation's student learners" (p. 1). Teachers are providing instruction and expected to raise achievement among an increasingly diverse population of students (The American Association of Colleges for Teacher Education, 2011). "American concern about the quality of teaching in public schools is not new; public concern about the quality of teachers who enter the classroom includes concern about the quality of the education program that prepared them" (Good, McCaslin, Tsang, Zhang, Wiley, Bozack & Hester, 2006, pp. 410–411). In this study, I explore an area of teacher preparation at one university's school of education.

Recent reports such as the 2010 MetLife (2011) Survey of the American Teacher show that while new teachers are expected to serve more diverse groups of students than ever before, most do not feel adequately prepared for the job; nor do they feel prepared for being held accountable for their students' achievement. Research based instructional strategies and opportunities for collaboration with other teachers within the same or cross-content area as well as collaborative teaching may support teachers in the diverse classroom. Teacher preparation "reform efforts focus[ing] on improving teacher effectiveness" (MetLife, 2011, p. 16) must be a top priority for improving learning outcomes for all student learners.

A growing issue in education is how to help students who are struggling to learn achieve academically in school. Klotz and Canter, (2006), describe Response to Intervention (RTI) as the following:

a multi-step approach to providing services and interventions to struggling learners at increasing levels of intensity. RTI allows for early intervention by

providing academic and behavioral supports rather than waiting for a child to fail before offering help (p. 1).

School District U-46 in Illinois defined response to intervention as, “a process to help schools focus on and provide high quality instruction and interventions to students who may be struggling with learning” (School District U-46, 2008, p. 1). This research addresses the outcomes of one teacher education program regarding instruction on response to intervention. Pre-service teachers and administrators were asked to rate the overall quality of the preparation program and how well they thought their program prepared them to adapt curricula to meet individual learner needs; also, instructors within the teacher education program were interviewed.

### **Background**

Effective teachers change the lives of the nation’s students. According to some researchers, how teachers are prepared to succeed in the classroom should receive more attention. “Higher Ed teacher preparation programs prepare almost 90% of the 240,000 new teachers hired each year” (The National Council on Teacher Quality, 2010, p. 1). Learning about teaching methods and acquiring field experience together comprise only a small fraction of postsecondary requirements, especially for prospective secondary teachers (Floden & Meniketti, 2005). Teachers work in buildings with students of differing backgrounds. Teaching methods and field experiences allow prospective teachers to identify their own personal beliefs about poverty and low achievement in high-poverty schools (Lyman & Villani, 2004). Many may measure a student’s learning ability on their own personal experiences. Hollins and Guzman (2005) wrote:

Barriers to candidates' increased knowledge growth about cultural differences and ways of providing appropriate and responsive pedagogy to students from cultures other than their own included positivistic thinking, dualistic thinking, a belief in one right answer, and relying on personal biographies as guides to teach others. (p. 512)

Educators and lawmakers have to consider how students in urban communities should be educated when urban communities struggle with recruiting and retaining highly qualified teachers. Teacher quality is important to school success and student achievement. Preparing teachers for diverse populations has been the subject of a growing body of research.

To respect the anonymity of the Midwest University, in the context of this research study the pseudonym, Study Site University (SSU) was used for identification purposes. SSU is on the national list of teacher preparation programs; an independent, public-serving, liberal arts university located in Missouri. Founded in the early 1800s, SSU is one of the oldest higher education institutions west of the Mississippi River and since the 1990s one of the fastest growing universities in the Midwest. According to SSU School of Educations' conceptual framework, effective faculty development is a blend of science and art. SSU designed degrees in education to meet the needs of aspiring and practicing educators to form a solid foundation, build upon existing skills, and offer new approaches to analyzing contemporary problems and acquiring new perspectives, techniques, and knowledge. The Mission Statement of the university and the Missouri Standards for Teacher Education Programs (MoSTEP) drives the conceptual framework for SSU's Teacher Preparation Program for Beginning Teachers in Missouri. The

Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools and the Missouri Department of Elementary and Secondary Education (MODESE) accredits the SSU Teacher Education Programs. The School of Education is also a member of the Teacher Education Accreditation Council. This research study will review a contemporary issue facing education today, SSU's school of education's teacher preparation program in the area of instruction in RTI.

### **Problem Statement**

The compelling force behind education reform is improving teacher quality (McArdle, 2010). Chairman of the Board, President, and Chief Executive Officer of MetLife, Inc., C. Henrikson said, "A good education is the best preparation for the opportunities and obstacles that may lie ahead; unfortunately, too many students in the United States and many other nations are not gaining the knowledge and skills needed for future success" (MetLife, 2011, p. 3). Policy makers reauthorized the Elementary and Secondary Education Act (ESEA) and Title II of the Higher Education Act (HEA), thereby prompting teachers, parents, and many other education stakeholders to consider carefully the current state of schooling in the United States. ESEA and HEA include funds to review how federal policy can best generate and support efforts to ensure strong education for all children. Students without basic knowledge and relevant skills have an impact on their communities. Students with the greatest needs often have no access to the best teachers. Extensive research attests to the fact that children in high-poverty schools are more likely to be assigned new teachers, teachers who lack knowledge of their subjects, and teachers with lower academic skills. These factors contribute to lower achievement for students from disadvantaged backgrounds. Research makes clear that a

fundamental influence of student achievement is the quality of a child's teacher (American Association of Colleges for Teacher Education, 2011). Certainly, educators recognize cultural differences exist between teachers and students (Hollins & Guzman, 2005); however, preparing teachers for cultural diversity is a noted weakness in teacher preparation programs (Voltz, 1998). In an article entitled "Innovations in Inclusive Education," written for the International Journal of Whole Schooling, Wolfberg, LePage, and Cook (2009) wrote:

It is widely believed that exemplary teachers need to be able to think pedagogically, reason through dilemmas, investigate problems, analyze student learning to develop appropriate curriculum, all the while being able to do so with a diverse group of learners. (p. 21)

Users of RTI consider a student's climate, the antecedents to academic success, and the use of scientific research based interventions, in addition to the educational effectiveness of the classroom teacher. Federal funds provided by agencies such as ESEA and HEA are essential to assist university teacher preparation programs to place an emphasis on knowledge of child and adolescent development, integrated content knowledge, and good teaching. Integration of the aforementioned skills into the school of education curriculum will equip pre-service teachers with relevant information necessary for success.

### **Purpose of the Study**

The purpose of this study is to examine how SSU School of Education Faculty members instruct teacher candidates and educational administrators on Response to Intervention (RTI), a method for helping struggling learners (Blanton, Pugach, & Florian,

2011). According to the National Center on Response to Intervention (2010), this method integrates assessment and intervention within a multi-level prevention system to maximize student achievement and to reduce behavior problems; “the RTI process begins with high-quality instruction and universal screening of all children in the general education classroom” (RTI Action Network, 2011, p. 1). Many states use a RTI model as an early intervention tool to support those students who do not meet the requirements for special education or related services, but need academic support in the general education setting (Duffy, 2007). Although the law or federal regulation neither mandates nor requires RTI, the Illinois State Board of Education required all school districts to develop RTI plans by January 2009 and create a process for statewide implementation. The State of Missouri RTI Guidelines (June 2008) describes the use of RTI for Specific Learning Disability identification. Many researchers have studied the application of RTI at the elementary and middle school levels. Recently, there have been published studies on the implementation of RTI at the secondary level; however, no researchers have examined how to teach RTI to pre-service teachers. The goal of this research study is to show how SSU’s teacher education programs influence instruction for struggling learners (Good et al., 2006). Data collection consisted of (a) administering (undergraduate and graduate) student surveys, (b) conducting faculty interviews, and (c) conducting graduate student interviews.

### **Research Questions**

- How do SSU School of Education Faculty members instruct teacher candidates and educational administrators on Response to Intervention?

- How do faculty teach RTI differently at different levels (undergraduate, MAT, administration)?
- How do faculty perceive that RTI has changed the role of the general education teacher and administrator?

### **Definitions of Terms**

*The American Association of Colleges for Teacher Education (AACTE).* “A national alliance of educator preparation programs dedicated to the highest quality professional development of teachers and school leaders in order to enhance PK-12 student learning. The 800 institutions holding AACTE membership represent public and private colleges and universities in every state, the District of Columbia, the Virgin Islands, Puerto Rico, and Guam. AACTE’s reach and influence fuels its mission of serving learners by providing all school personnel with superior training and continuing education” (AACTE Education, 2011, p. 1).

*Diversity.* “In education, discussions about diversity involve recognizing a variety of student needs including those of ethnicity, language, socioeconomic class, disabilities, and gender” (Association for Supervision and Curriculum Development, 1997, p. 3).

*Elementary and Secondary Education Act (ESEA).* “Contains the majority of federal programs assisting elementary and secondary schools. Under ESEA, every state education agency and almost every school district receives funding for such activities as services for educationally disadvantaged students, professional development for teachers, and anti-drug education programs.” (Institute for Education Leadership and Center on Education Policy, 2000, p. 29).

*Highly Qualified Teacher.* To be considered highly qualified, a teacher must have a bachelor's degree and full state certification or licensure and demonstrate content mastery in each subject he or she teaches. Elementary school teachers must demonstrate knowledge of teaching reading and math (United States Department of Education, 2004).

*Individuals with Disabilities Act (IDEA).* A federal law enacted in 1990 and reauthorized in 1997 designed to protect the rights of students with disabilities by ensuring that everyone receives a free appropriate public education regardless of ability (National Resource Center on ADHD, n.d.).

*Master of Arts in Teaching (MAT).* A master degree program that “allows teachers at all levels to broaden and deepen their knowledge and instructional skills” in education (WorldWideLearn, 1999-2012, p. 1).

Missouri Department of Elementary and Secondary Education (MODESE). “The administrative arm of the Missouri State Board of Education; primarily a service agency that works with educators, legislators, government agencies, community leaders and citizens to maintain a strong public education system. Through its statewide school improvement activities and regulatory functions, DESE strives to assure that all citizens have access to high quality public education” (Missouri Department of Elementary and Secondary Education, 2012, p. 1).

*Missouri State Board of Education.* Statutory authority that can establish standards for school accreditation, establish educator certification requirements, approve educator preparation programs, distribute and monitor state and federal funds to school districts and charter schools, operate State Schools (schools for the blind, deaf, and



severely disabled), and administer adult learning and rehabilitation services (Missouri Department of Elementary and Secondary Education, 2011).

*National Center for Learning Disabilities (NCLD).*

The NCLD's mission is to ensure success for all individuals with learning disabilities in school, at work, and in life. The NCLD connects parents and others with resources, guidance, and support so they can advocate effectively for their children. They deliver evidence based tools, resources and professional development to educators to improve student outcomes; and develop policies and engage advocates to strengthen educational rights and opportunities. (National Center for Learning Disabilities, 2012, p. 1)

*National Center on Response to Intervention (NCRTI).* The website to find information on Response to Intervention (National Center on Response to Intervention, 2009).

*No Child Left Behind Act of 2001.* The purpose of this title 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. This purpose can be accomplished by holding schools, local educational agencies, and states accountable for improving the academic achievement of all students, and identifying and turning around low-performing schools that have failed to provide a high quality education to their students, while providing alternatives to students in such schools to enable the students to receive a high quality education (United States Department of Education, 2004).

*Pre-service Teacher.* A college student who, by way of introduction to the teaching profession is being guided and mentored by a cooperating teacher (University of Missouri-St. Louis, n.d.).

*Response to Intervention (RTI).* A new component within IDEA 2004 and the final Part B regulations that represents a process schools may use to help children who are struggling. One of its underlying premises is the notion that a child's struggles may be due to inadequacies in instruction or in the curriculum either the current curriculum or one used by teachers in the child's past. RTI integrates assessment and intervention within a multi-level prevention system to maximize student achievement and to reduce behavioral problems (NCRTI, 2009). RTI authorizes schools to utilize data to identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions, adjust the intensity and nature of those interventions depending on a student's responsiveness, and identify students with learning or other disabilities. The RTI process matches high quality instruction and interventions to unique student needs (Klotz & Canter, 2006). Comprehensive RTI implementation contributes to meaningful identification of learning and behavioral problems to improve instructional quality and to provide all students with the best opportunities to succeed in school.

*Specific Learning Disability (SLD).* A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations (NCLD, 2012).

## **Study Limitations**

This study has limitations inherent in its design. Understanding a study's limitations helps to identify what other situations or findings apply and where they do not apply. Following are the limitations of this study.

The purpose of this study is to examine how SSU School of Education Faculty members instruct teacher candidates and educational administrators on Response to Intervention (RTI), a method for helping struggling learners (Blanton et al., 2011). The data gathered was designed with the use of a cross-sectional survey; drawn from a predetermined population at a single point in time. Interviews were also conducted of pre-selected faculty members and graduate students. The interview technique included the use of standard open-ended questions. Open-ended responses can vary in their complexity making it difficult to generalize information and can lead to additional probing for clarity of a response (which can distract from the purpose) (Fraenkel & Wallen, 2006). As beneficial as it can be to use an open-ended format (the wealth of information acquired), respondents may be reluctant to speak openly, withhold details or simply choose not to respond. Interviewees may think an honest response might have a negative impact on them personally (a lower grade, embarrassment of not knowing a response, etc.). Conducting interviews in the same manner for each interviewee is imperative. Each interview was recorded and the questions were asked in the same order. Conversely, I made every effort to conduct each interview in the same manner and reassure the interviewees that the information gathered from their responses would solely be used to answer the research questions of this study and would in no way have a

negative impact on them personally. Each of the participating interviewees was assigned a code for analysis.

Some student participants were not knowledgeable about the topic; this was possibly due to the fact that the surveys were distributed too early in the semester to draw upon their most recent exposure to RTI at SSU. The survey contained a closed-ended question format. I chose to have the participants select from the list of pre-determined responses (Fraenkel & Wallen, 2006). The data I am pursuing has no bearing on the participant's opinions, but more specifically their acquired knowledge on the subject of RTI. I did not consider including an option for the student participant to choose "other" to explain their knowledge of or lack of knowledge as a response. The survey questions made the underlying assumption that the respondents were knowledgeable about the topic (Willis & Lessler, 2006).

Student participant's inability to ask clarifying questions for survey completion may yield insufficient data. Willis and Lessler (2006) suggest, "Identify problems related to intent or meaning of the question" (pp. 3-12). Devising clearly written instructions for survey completion and defining of terminology for better understanding by student participants' is important in survey design (Fraenkel & Wallen, 2006). There was a high number of missing values in student survey question 4, perhaps due to unclear wording. It begins, "If your coursework did not cover RTI..." which could be interpreted to mean that only those whose coursework did not cover RTI should answer the question. In addition, participants might have interpreted words like "frequently," "occasionally," and "regular" according to their own perspectives.

Responses to the interview questions had to remain confidential; the uses of pseudonyms were to protect the anonymity of all participants to prevent recognition of specific courses and instructors. Student nor instructor participant responses did not serve as an evaluation of performance at the university or otherwise.

Participants acknowledged difficulty separating knowledge of RTI gained from courses at the university in the study and knowledge gained from other sources. This could be due to the interval of time since the respondents received the information at the university level (Willis & Lessler, 2006). During interviews, it was difficult to distinguish education administrator's prior knowledge of RTI and their more recent knowledge gained from instruction at the university in the study. Interviews are "subject to the common problems of bias, poor recall and poor or inaccurate articulation" (Yin, 1994, p. 85). Some school districts of the education administrator candidates interviewed currently use RTI as a tool for school improvement so they were engaged in its processes.

It was not possible to interview additional instructors and enrolled students of methods courses due to their limited availability. After making several attempts by email, phone and in person, time constraints did not permit the researcher to interview all instructors of the selected courses. Possibly, an incentive might have encouraged participation.

## **Conclusion**

Among the most important education issues confronting the nation is providing high-quality schooling for all students, especially those presently underserved by the educational system, including students of color, low-income students, English-language learners, and students in rural and urban settings (Hollins & Guzman, 2005). "Teaching

is a topic of public concern often enough, but we do not talk much about how we train teachers” (The Paris-Post Intelligencer, 2011, p. 1). The importance of reform preparation for general education teachers is to bring about better academic outcomes for struggling learners (Blanton et al., 2011). These learners provide an opportunity for school leaders to step up and relentlessly push for those practices that have the strongest evidence-based probability of improving results for *all* students (Kukic, 2009). Students need high quality instruction based on research; and they need behavioral supports in their general education classrooms. Researchers need scientific measurements of students’ responses to instruction. Teachers and administrators need access to research based on the data that focuses specifically on individual student difficulties and the delivery of instruction. “Provided with an appropriate intervention tailored to his or her needs, and with the support of an expert teacher, any child can learn and make accelerative progress” (Lose, 2008, p. 22). Essentially, the two tiers of RTI require general education teachers to use research-based instruction with all students and then to evaluate the effectiveness of that instruction. Effective use of these resources will allow the school and students to improve. Chapter 2 contains a thorough survey of relevant literature to fit this study within a detailed background of related problems and research.

## **Chapter 2: Literature Review**

A RTI model is a useful school improvement approach for providing data-driven educational decisions for students who may require extra support (Wedl, 2005). There have been many studies on the application of RTI at the elementary and middle school level. Recently, researchers have published a number of studies on the implementation of RTI at the secondary level; however, no researchers have published studies concerning pre-service teachers' instruction on RTI. In this chapter, the literature presented serves as a background for this study of RTI and teacher preparation programs. Topics include (a) the history, components, and benefits of RTI; (b) the history of research on teacher education; (c) multicultural teacher preparation; (d) preparing school leaders; (e) RTI data teaming process; and (f) standards for teacher preparation programs.

### **The History, Components and Benefits of RTI**

Federal and state regulations have been introduced to determine special education eligibility. Prior to amendments to federal laws governing these programs, fewer options existed for assistance outside of increasingly strained general education budgets. McNulty and Gloeckler (2011) report “the largest category of students in special education is students with learning disabilities” (p. 4). That equates to 39% of students receiving special education services. The research did not reveal the percentage of students who would benefit from special education services that do not meet the eligibility criteria for diagnosis or enrollment. However, students with disabilities child count for the state of Missouri reports school age (5K-21) totals based on total public school enrollment (886,523) at 3.62% for students with LD (Missouri Department of Elementary and Secondary Education Division of Special Education, 2012). There was

no research to support diagnostic screenings that may suggest a student is working to ability as borderline or non-disabled. Another struggling learner may not even be evaluated, or simply struggle due to frequent school changes that resulted in one or more key concepts not being covered; “a student’s ability to achieve academically can be influenced by a number of factors, including socioeconomic, emotional, or learning disability challenges” (Morgan, 1999-2012, p. 1). Individually, students have differing levels of learning that requires timely assistance (Tomlinson, Brimijoin, & Narvaez, 2008). In fact, many students have been undiagnosed or are simply not far enough behind to warrant a recommendation for consideration for special education support. Prior to 2004, a student was required to have average or higher intelligence and a severe discrepancy between ability and performance in one or more areas as measured by standardized tests (Logsdon, n.d.) in order to qualify for special education services. In practice, this meant that a student had to be two or more years behind before receiving any formal help at all (Lose, 2008).

Prior to 2006, the Missouri Department of Education defined learning disabilities as disorders involving language (either written or spoken) or computation. The student not only had to be diagnosed with the qualifying disorder, but tests and grades had to show that the student was severely behind in schoolwork. Only bright students performing well below average received help because they had the greatest discrepancies between ability and achievement (Missouri Department of Elementary and Secondary Education, 2004). The law also precluded students from receiving additional help due to socioeconomic challenges or lack of familiarity with English.



Early identification and interventions are major predictors of student academic success (Pinkus, 2008). In some districts, superintendents and board members have reviewed early warning system data for all students at the third grade level and attempted to predict which students would drop out of school or continue to graduation. This data assist school districts with identifying interventions “to address the drop out problem...by keeping more students engaged in learning” (Heppen & Therriault, 2008, p. 1). School district superintendents and board members have also attempted to make predictions about student attendance, district enrollment, and the amount of academic support each student might need in order to be successful throughout his or her school career.

The removal of the federal ability-achievement discrepancy formula, which had been used to identify students with learning disabilities, provided significant opportunities for schools to use RTI, which is a successful method for identifying children with learning disabilities and providing special education services, as a preferred alternative to referring students for special education (Bradley, Danielson, & Doolittle, 2005; (Federal Register, 2001). According to the National Research Center on Learning Disabilities (2006), RTI, which was added to IDEA in 2004, was intended to help low achieving children who might otherwise become lost in the “maze” of eligibility law that had been put in place with the original IDEA. The provisions of the act became effective on July 1, 2005; final regulations were published Aug. 14, 2006. IDEA was meant to safeguard the rights of persons with disabilities to free, appropriate public education (FAPE) regardless of ability. The revision allowed local educators to use a student’s RTI to determine eligibility to special education services (Shinn, 2007). Through high quality instruction and assessment, data analysis, and progress monitoring, RTI is a flexible way

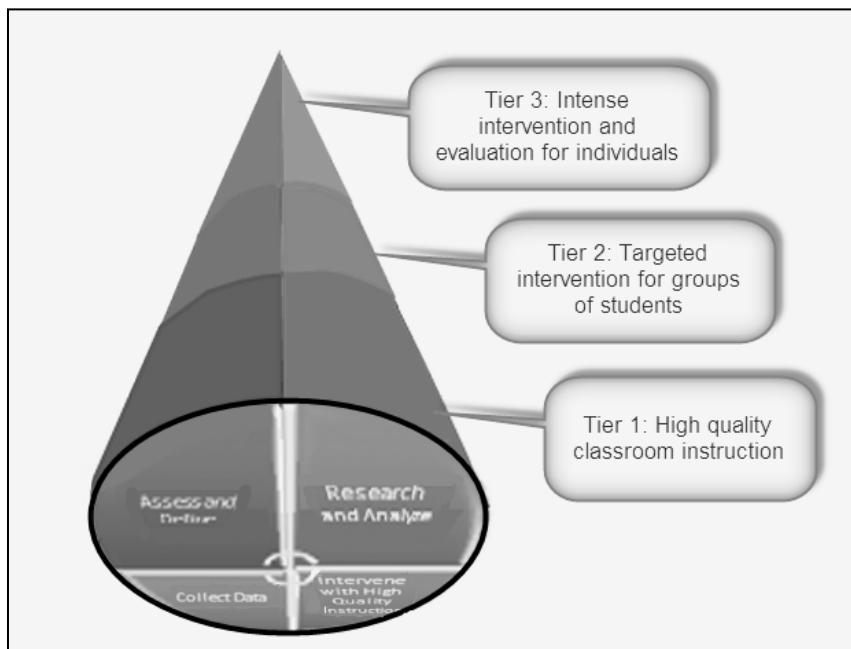
to provide tailored instruction to all children in the general education setting (Wedl, 2005).

According to the NCRTI (2010), RTI is a systematic method for integrating assessment and intervention. The goals of RTI are (a) to maximize achievement, and (b) to reduce behavioral problems. The RTI model rests on scientific research for designing interventions and careful, constant data collection by way of assessment. When used properly, RTI provides a constantly updating educational environment for struggling learners. See Figure 1.



*Figure 1.* The heart of the RTI model (National Center on Response to Intervention, 2010).

The cycle in Figure 1 is just part of the picture: Teachers trained in RTI implementation use the process at multiple tiers (RTI Action Network, 2011). See Figure 2 for an illustration. RTI is an integrated process that applies to all levels of teaching.



*Figure 2.* The RTI process related to the three tiers.

RTI also allows schools to consider both the child’s own method of learning and the instruction received (Cortiella, 2009). Core features of RTI are a continuous cycle of high quality research-based instruction, universal screening, progress monitoring, research-based interventions, progress monitoring during interventions, and reliability measures (NCLD, 2006; RTI Action Network, 2011; NCRTI, 2011). Progress monitoring, or constantly reviewing data, compels instruction and decisions regarding the use of additional research-based interventions so that teachers can respond quickly to learning difficulties and minimize the risk that students will have poor outcomes. The process is systematic assessment and intervention at increasing levels of intensity, or tiers (Bradley et al., 2005; NCLD, 2012; National Dissemination Center for Children with Disabilities, 2009; NCRTI, 2009; Drummond, Gandhi, & Elledge, 2011; RTI Action Network, 2011). The Office of Superintendent of Public Instruction explains RTI as “a multi-level framework to maximize student achievement by supporting students at risk

for poor learning outcomes” (n.d., p. 1). Researchers agree that the processes of RTI can be used as a school wide improvement tool to improve student performance.

Missouri policy is that any agency that implements a RTI model must provide a written procedure for doing so. These written procedures must—at a minimum—incorporate the guidelines set by NCLB, which include the following components:

- Evidence-based, high quality instruction
  - Constant, universal student assessment
  - Tiered instruction (see Figure 2 on page 21)
  - Parental involvement in the form of written updates about their children
- (Missouri Department of Elementary and Secondary Education, 2004; RTI Action Network, 2011).

RTI is a shift in thinking for many general education teachers (Hazelkorn, Bucholz, Goodman, Duffy, & Brady, 2011). Teachers at every grade level are responsible for providing the instruction of a rigorous curriculum to an increasingly diverse student population (United States Department of Education, 2010). Student performance screenings occur frequently; the data determines which students need closer monitoring or intervention and indicates whether each student might benefit from modified instruction (Wedl, 2005).

RTI provides many benefits to both teachers and learners. Using RTI, teachers and administrators can (a) tailor education to meet each child’s needs, (b) help teachers to serve students who might otherwise fall through the cracks, (c) prevent small problems from becoming large ones, (d) use scientifically based instruction, and (e) provide teachers with methods for smoothly transitioning to modified curricula.

**Tailoring education to meet each child's needs.** Each child is unique, with differences in everything from brain patterns to interests to strengths. These differences create challenges for teachers who must meet every child's needs (Hall & Jensen, 2008). Many students need basic help, for a variety of reasons, to accomplish 12 years of schooling. Such students have abilities that they do not access for one reason or another; they have not achieved to their full academic potential. Such students require the kind of attention that RTI is designed to implement (Moore, 2008).

**Serving students who might otherwise fall through the cracks.** A vast majority of students who would benefit from special education services no longer meet the eligibility criteria for diagnosis using the discrepancy formula. These students carry such labels as "borderline," "non-disabled," "low-achiever," or "struggling learner"; others may not have been given appropriate opportunities, possibly due to relocation and consequent gaps in learning. Some children require instructional modifications to keep up with their grade-level peers and benefit from high quality classroom instruction (Lose, 2008).

**Preventing issues from becoming problems.** RTI is an effective method for helping struggling learners in the general education environment before they fail and face special education referral and placement, as reported by Canter, Klotz, and Cowan (2008). RTI initiated another way to (a) investigate learning disabilities (LD), (b) discontinue the use of labeling struggling readers with disabilities, and (c) offer another option besides the discrepancy formula to identify students with LD (Ehren, n.d.). Educators should consider why a child is struggling in relation to instruction. A RTI approach allows educators to accommodate students who need more in the general

education setting. In spite of RTI's meager beginnings in IDEA, not as a special education procedure but a general education initiative that is within school improvement efforts. The RTI approach utilizes a tiered system to provide individualized instructional support and scientifically based interventions for students and offers hope for supporting all learners (Cortiella, 2009).

**Scientifically based instruction.** In the implementation of RTI, the focus is on scientifically based instruction with the expectation that teachers analyze their own teaching procedures and differentiate instruction to enhance student learning (Ehren, n.d.). Teachers must develop the knowledge and skills necessary to improve student achievement within their classrooms by using (a) research-based teaching methods, (b) classroom management, (c) positive behavioral supports, and (d) interventions. Various learning methodologies exist and as teachers obtain awareness of “and the neuro-developmental requirements for specific subject matter mastery, they can begin to focus on the needs of their most vulnerable and perplexing students” (Barringer, 2009, p. 38).

**Providing teachers with methods for changing curricula.** All teachers must assume responsibility for making connections between content mastery and content literacy for all students, and not just for those who struggle (Ehren, n.d.). This is a shift in perspective for teachers who have been accustomed to having children with learning disabilities' curricula modified and delivered by special education teachers. Many believe a special education teacher's job is to offer accommodations or to modify curriculum. Prior to an evaluation for special education, the general education teacher's responsibility is to ensure that every child in their care is successful, and when a student is not successful, to modify the curriculum for their success. Some general education

teachers may think it unfair to do for one child what they may not do for all of the students in class. Students learn at different rates; no two students will learn the same way, and identifying just one for special learning environment smacks of favoritism to some. Ostroff (2012) offers the following view on student learning:

Inquiry on children's learning over the past hundred years has been flooded with theories (conditioning and behaviorist theories, social cognitive theories, information processing theories, constructivist theories, and sociocultural theories to name just a few). Each of these theories has corresponding and compelling empirical evidence, but little discussion about how and when they should be used (p. viii).

Regardless of a teacher's personal opinion of student learning, the researcher will reiterate every child in the United States has the right to an education suitable to meet his needs (National Dissemination Center for Children with Disabilities, 2009).

### **Changes in Teacher Education during the Last 50 Years**

Cochran-Smith and Fries (2005) suggested that the history of research about teacher education during the last half-century might be explained at least in part by identifying how "the problem" of teacher education is constructed and how it is studied, analyzed, and interpreted. The basis for research about teacher preparation has historically depended on political and professional influences and policies as they related to social and economic issues. Teacher education reform is of great importance to college and university officials (Capraro, Capraro, & Helfeldt, 2010). Especially within the last decade, teacher quality has become of great concern in the political realm—but agreement on a definition of teacher quality has been difficult to achieve (Cochran-Smith

& Fries, 2005). One of the many challenges facing education reform is providing a high-quality education for all students, especially the diverse student population (Hollins & Guzman, 2005).

Teachers are most effective when they have faith that all students have the capacity to learn, regardless of race, socioeconomic status, gender, ethnicity, or disability (Chong & Cheah, 2009). General education teachers provide instruction for all students (American Association of Colleges for Teacher Education, 2011), but not in the same manner as historically (Greenhill & Petroff, 2010); one-room schoolhouses no longer exist and the demands on teachers are different. In addition to maintaining an orderly classroom, teachers must work with an increasingly diverse population of learners, making the traditional model of a teacher at the center of student learning obsolete (Chong & Cheah, 2009). Teachers are required to move a diverse population of learners through a complex curriculum (Bransford, Darling-Hammond, & LePage, 2005). High-stakes testing allows for demonstration of success, including diverse learners (The Center for the Future of Teaching & Learning, 2004) placing the responsibility of student achievement on the entire school system (teachers, and administrators). Trends in education reveal an increase in high-stakes testing and school accountability. According to some, the education system must change and teachers must be trained in fundamentally different ways from how they have been trained in the past (Cochran-Smith & Fries, 2005). Teachers are under pressure to prove that their students are reaching state and federal standards (The Center for the Future of Teaching and Learning, 2011). Tests, in general, provide insight to a level of content mastery and provide a basis for improving instruction and performance. Teachers must pursue their own professional development



to go beyond simply meeting the requirements of a curriculum to enabling their students to learn in diverse ways (Bransford et al., 2005).

The American cultural landscape has changed, the student population is considerably more diverse, and the majority of individuals in teacher preparation programs are white females raised in middle class homes in rural and suburban communities (Assaf, Garza, & Battle, 2010). Hollins and Guzman (2005) went so far as to say that “persistent and pernicious” disparities in educational resources existed between White children and those of color (p. 478).

A growing number of factors influence education outcomes, among them teacher quality, which may be the primary factor (Hollins & Guzman, 2005). A classroom teacher can have a significant effect on closing the achievement gap. Researchers have demonstrated the necessity to prepare new teachers adequately to implement high impact instruction (A ACTE, 2011). Teachers who are adequately prepared can increase student achievement and close the achievement gap between mainstream learners and their diverse counterparts who may be struggling.

To improve the teacher workforce, lawmakers included requirements in NCLB be “highly qualified” no later than the end of the 2005-2006 school year (Cortiella, 2004). This requirement put new pressure on teacher training institutions: their graduates were required to pass stringent standardized tests (Cochran-Smith & Fries, 2005). Soon after the initiation of NCLB, the American Association of Colleges for Teacher Education (AACTE) began to lead efforts to ensure that teacher training institutions would (a) have a positive effect on their teacher-students, (b) prepare teachers to differentiate their instruction in order to be effective for learners from a variety of backgrounds and with a

variety of needs, (c) provide clinical experiences with high quality support as part of the licensing process, (d) work with school districts to meet shortages in teacher candidates, (e) train teachers to work within state standards and effectively use assessments, (f) train teachers to respond to students' needs and instill a passion for learning, and (g) train teachers to work in the new, global economy and prepare their students to do likewise (AACTE, 2011).

The goal of preparing teachers to be equipped to help all students achieve to their greatest potential raises a number of important questions about exactly what training is necessary for teachers to effectively perform in the following areas: (a) content knowledge, (b) developmental learning processes, (c) productive learning experiences for diversity, (d) propose student feedback, and (e) reflect and evaluate personal teaching practices for improvement. Bransford et al. (2005) concluded that pre-service programs should focus on providing teachers with the necessary background, or core learning, to enable them to develop throughout their careers.

### **Multicultural Teacher Preparation**

This section begins with research about the introduction of desegregation in the public school system and continues with a general discussion of teacher preparation for diversity. In all fairness to pre-service teachers and teacher educators, it is important to note the impact of multicultural education in teacher preparation programs. Educating children of color and immigrants has a well-documented history in the United States—and that history has not always been a story of success.

In past years, a vast majority of American children attended schools where most students were of the same racial identity (Coleman, 1967). They attended what today is

considered 'segregated schools'. Desegregation began with the goal of ensuring that Black and Latino students' constitutional rights under the 14th amendment were being protected (Orfield, 2004). The Supreme Court ruled in 1954 that separate schools for Black and White children were not equal (Coleman, 1967). Today, American public education is still unequal (Orfield, 2004). As of 2004, being Black or Latino correlated strongly with socioeconomic disadvantages. Students living in underprivileged areas, English language learners, and students with disabilities may lack the same school resources as those who are more privileged. Problems like inadequate lighting, outdated textbooks and technology, inadequate school libraries, or poorly trained teachers were, in 1967, unique to poor schools (Coleman, 1967). A child might begin the day hungry, under dismal home circumstances, to enter an overcrowded, under-sourced school. Today, it continues to be a challenge to provide a high quality education for diverse student learners (Hollins & Guzman, 2005). Culture plays a critical role in the teaching and learning process; to operate efficiently as a teacher one must recognize and accept this fact (Sheets, 2009).

According to Hollins and Guzman (2005), the research on teacher preparation for diversity reflects the state of teacher education more generally and strongly influenced by lack of funding and other necessary infrastructure and resources. Teachers of any race who do not identify with their students are unable to understand how cultural differences might affect how their students learn. One's own culture always creates a bias (Delpit L. D., 2006). Goodwin's (1994) study, as reported by Hollins and Guzman (2005) was in part an investigation into pre-service teachers' goals with regard to educating children of diverse backgrounds. Forty-one percent of the 80 respondents (who were 59% White)

indicated that learning about others was the most important goal of multicultural education. Educators must address this issue for themselves as individuals because one must understand one's own stereotypes and then set out to understand the world as understood by others (Delpit, L.,2006).

Many pre-service teacher candidates of color who attended primarily white majority institutions said they felt alienated and unsupported in those institutions (Delpit L., 2006; Hollins & Guzman, 2005). People in places of power and privilege often view their own versions of reality as the only one. Other peoples' worldviews may be unequivocally dismissed as inconsequential. Viewpoints of Hollins and Guzman (2005) and Delpit, L. (2006) are that candidates of color do not receive the same respect from their white counterparts: the perception is they do not have the knowledge and resources to provide high quality instruction for their students. This cultural gap is present among all stakeholders (students, parents, school personnel, and the community), and not an easy fix. Nevertheless, educating all teachers in culturally diverse backgrounds is a necessity. Teacher preparation programs may be at varying stages of incorporating multicultural education into the curriculum. Hollins and Guzman (2005) reviewed empirical studies about how teacher preparation institutions prepared candidates for teaching students from other cultures. They found teacher preparation programs sadly lacking, and moreover, activities designed to reduce prejudice ineffective.

O'Hara and Pritchard (2008) examined faculty professional development and centered their efforts on the standard of living of those they served and on how faculty at teacher preparation institutions modeled best practices for teacher candidates. They concluded that compartmentalizing instruction about teaching diverse learners to one or

two courses ineffective; this type of instruction is essential to incorporate within an entire teacher preparation program. In this way, institutions can train teachers to create positive learning environments and to maximize achievement for diverse learners (Orfield, 2004).

In order for teachers to have a positive impact on diverse students, educators must actively assess classroom practices to educate and influence future teachers, regardless of the students' different cultures and languages. Assaf et al., (2010) reviewed aspects of one teacher education program in terms of teacher educators' beliefs, perceptions, and practices and their impact on how coherent (or not) the program was. One issue that caused teacher educators much anxiety was recognizing the difficulties of being anchored to their own backgrounds while being required to work with teacher candidates who, in turn, would be working with children from diverse cultural backgrounds. Many teacher educators said that field experiences offered real life opportunities for multicultural education. These teacher educators emphasized the importance of field-based learning to provide the necessary background, responsiveness to diversity, and integration with a community that might be culturally different from themselves.

### **Federal and State Standards for Teacher Preparation**

Federal and state standards require that institutions of higher education make improvements (AACTE, 2011). Most teachers spend at least some of their training time in institutions of higher education—even those who learn to be teachers through nonprofit, state, or district programs. Many institutions and other certification programs prepare teachers, principals, school counselors, and other education professionals.

The federal government offers grants to assist undergraduate and graduate teacher candidates with tuition and other school-related expenses. One such program is the

TEACH program, which provides teachers with financial assistant in return for recipients teaching a certain number of years in high-need schools in high need fields (AACTE, 2011). Another grant program is the Teacher Quality Partnership (TQP) (United States Department of Education, 2009). The TQP funds school districts and schools in jeopardy to improve and strengthen teacher preparation and student achievement and provides crucial clinical experience for recipient teachers. Improving teacher education is critical. Having effective teachers improves student achievement. Effective teacher training leads to better student achievement. In addition to improving teacher preparation, school administrators also find themselves in the center of this accountability issue and sharing the burden of increasing student academic performance.

### **Preparing School Leaders**

Education administrators or principals share the role of promoting school-wide learning. Teachers certainly have an effect on the success rates of their students, but the principal, as instructional leader, also plays a critical role. The best atmosphere for excellent teaching is one where instructional leaders have created a culture of trust and an efficient method for deploying resources that support learning (The Center for the Future of Teaching and Learning, 2011). In order for leaders to create ideal teaching and learning environments, institutes of higher education must prepare them for their leadership roles. Alarmingly, in a 2006 survey by Public Agenda, a nonprofit research organization, two thirds of the participating principals said that their educational training had been invalid (Johnson, Arumi, & Ott, 2006). University schools of education have traditionally offered at least one graduate practicum or internship semester in the candidate's area of study. University students collaborate with neighboring school

districts to observe leadership practices and increase their knowledge and skills of school administration under the supervision of university instructors.

Many school districts across the country have instituted their own training programs for school principals. The Ferguson-Florissant School District's superintendent initiated the Leadership Education Administration Development (LEAD) Program in collaboration with the University of Missouri–St. Louis (UMSL) (McCoy & Young, 2009). Educators throughout the district who were interested in careers in leadership were encouraged to apply. Few were selected for participation, and the participants were offered college credit towards administrative degrees from UMSL. In addition to weekly discussions and written assignments over a six-week period, participants in the LEAD program paired with district buildings or central office administrators for their field experiences. Teachscape, a for-profit professional development services company, has a program that combines data collection using the latest technology with instructional improvement in an atmosphere of learning and reflection on learning with administrators and classroom teachers (Butler, 2008; Teachscape, 2012). The Southern Regional Education Board (SREB), an Atlanta-based nonprofit, whose member states work together to improve public education (SREB, 1999-2012), offers a leadership training program. Their work involves creating leadership teams to work in collaboration with a school principal (Butler, 2008).

There are expectations of support and counsel from administrators; as leaders, they are expected to be knowledgeable of current developments in teaching and learning, and educational research. Successful schools “select, prepare, and retain principals who understand teaching and learning and who can lead high-performing schools” (The

National Commission on Teaching and America's Future, 1996, p. 11). Leadership training and practice is critical to support and motivate the success of teachers endeavoring to yield improved results in the classroom.

### **RTI Team Tasks**

RTI has proven to be more than just a substitute for the discrepancy model of diagnosing SLD: it is a viable research-based, school-wide initiative to improve student achievement (Barnes & Harlacher, 2008). An obligation of the school to avert educational problems by ensuring each student has an appropriate curriculum and high quality instruction (Barnes & Harlacher, 2008). Instruction is evidence-based, not haphazard, and data collection through progress monitoring helps teachers to determine both how students are responding to instruction and how curricula might be changed for the better. The focus should be not on students' deficits, but rather on instructional supports and their efficacy (Duffy, 2007). Institutes of higher education may need to consider training general education teachers in methods that target instruction in a manner similar to that of a special educator, while the role of special educator may evolve into one of providing professional development to their general education colleagues. Since RTI involves concentration on the relationship between instruction and achievement, teacher responsibility will continue to be an issue of great concern.

Some researchers have focused on how general education teachers have been adapting in the changing public education environment. They voiced concern that too many teachers have engaged in what they term "negative thinking" and called for teachers to see themselves as part of "the solution" (Hall & Jensen, 2008, p. 48). They said that an atmosphere of informal brainstorming for solutions needed to be fostered.



Others have recommended that care teams, students success teams, teacher assistance teams, and data analysis teams become integral to public school environments (Kovaleski, Roble, & Agne, 2010) in order to implement instructional strategies to help students and evaluate how new practices might affect struggling learners without specific diagnoses of learning or other disorders (Hall & Jensen, 2008). Care teams were designed to work collaboratively to provide three tiers of services within a school community (Kovaleski et al., 2010; Timmons, 2008). In a report by Education Evolving, Wedl (2005) reviewed the “Problem Solving Model” used by the University of Texas, the University of Pittsburgh, and the states of Iowa and Minneapolis; and Kovaleski et al., (2010) reviewed the RTI data analysis teaming process in Pennsylvania. Each of these models is similar to RTI in organization and structure and each relies for success upon how well the teams function. Each pre-referral intervention process provides staff with the knowledge and resources necessary for assisting struggling learners in the general education setting.

Many researchers agree that a successful RTI program uses: (a) scientific, research-based interventions attentive to individual student need delivered with vigor; (b) a collaborative approach to establish individual student need, develop a plan, implement interventions; (c) analysis of assessment data for uninterrupted monitoring of student performance and movement throughout; and (d) continuous parental involvement (Canter, et al., 2008; Hall & Jensen, 2008; Wedl, 2005). Collecting and correctly interpreting data is critical to helping teams operate effectively (Duffy, 2007).

Care teams work most effectively when comprised of at least some of the following: (a) a school administrator, (b) a counselor, (c) a special education teacher, (d)

a school nurse, (d) a reading specialist, (e) classroom teachers, (f) parents, (g) a social workers, (h) a speech or language specialist, and (i) a vision or hearing specialist. Team members work collaboratively, reviewing data and discussing effective research-based interventions based on students' specific needs. Teams should meet after acquiring data from universal screening or progress monitoring.

Care teams may find some form of a structured problem solving process to be useful on certain occasions. The problem solving process used in Iowa includes the following questions: (a) what is the problem? (b) Why does the problem exist? (c) What should be done to address the problem? And later, (d) did the intervention work? And (e) what's next? Frequent progress monitoring occurs and modification of the intervention plan as needed (Wedl, 2005).

### **Tier 1 Analysis**

The team can review at-risk performance by grade level, team, or individual classes (Kovaleski et al., 2010). The team will set measurable goals for the next review and brainstorm intervention strategies for implementation. Discussion also focused on how to implement the specific instructional strategies and the supplemental resources that might be necessary for implementation. The teams should have an assortment of interventions (Hall & Jensen, 2008). Care teams would implement instructional strategies after data analysis, of universal screenings at the Tier 1 level. Supplementary instructional strategies are provided after benchmark and progress monitoring for tier levels 2 and 3 (Kovaleski et al., 2010).

**Tier 2 Analysis**

The care team identifies students requiring Tier 2 instructional interventions (Kovaleski et al., 2010). Students in this category were unsuccessful at Tier 1 and did not meet their academic benchmarks. Data for these students takes place to decide on a more intense plan of instructional intervention. Progress monitoring at this level might occur every two weeks.

**Tier 3 Analysis**

Typically, students performing at this level have the highest risk of failure (Kovaleski et al., 2010). These students would require the most intensive, individualized supports to achieve success, with longer interventions conducted either individually or in small groups (NCRTI, 2009). At this level, if a student is not showing progress, the multi-disciplinary team would consider a referral for a special education evaluation (Hazelkorn et al., 2011; Kovaleski et al., 2010).

**Progress Monitoring and Follow-up Meetings**

Progress monitoring is a way to (a) assess students' progress, (b) quantify rates of improvement, (c) evaluate how effective the instruction has been, and, for those whom the most need support, (d) create individualized programs (NCRTI, 2009). Progress monitoring also involves frequent charting of progress, and examination of previous data to determine performance over time; overall, has the student shown improvement (Kovaleski et al., 2010). Follow-up meetings may involve evaluation of selected interventions, modifying curriculum, and continuing existing strategies or selecting new ones for improvement.

RTI is a method for identifying scientifically based instructional practices for students at all tiers. According to some, instruction in RTI is crucial for a teacher's future success (Duffy, 2007). Proper implementation of RTI necessitates change in traditions of schools and the environment within the classroom. Canter et al., (2008) said that implementing RTI need not be a complete overhaul of school procedures, but rather that it can be built upon those that are already in place. In addition, RTI can be implemented gradually. RTI is a school wide initiative that fits within school reform and school improvement efforts (Illinois State Board of Education, 2008).

Early identification and interventions are major factors in student academic success. Meeting the instructional needs of at-risk youth is possible, with conscientious attention to fundamental principles of effective instruction. The purpose of RTI is to ascertain students who are lagging behind their same age peers within the classroom and to make certain that each of those students obtain the appropriate instruction or intervention for their success (Moore, 2008). The State Department of Education in Missouri and Illinois support the use of RTI as a method of determining if a student has a specific learning disability (Department of Elementary and Secondary Education, 2008; Illinois State Board of Education, 2008). Duffy (2007) said, "RTI takes the focus of individual student deficits and refocuses attention on the interaction between teaching and learning" (p. 3). This focus and interaction allows school districts to improve student achievement.

### **School of Education Teacher Preparation Program**

In the state of California, SB 2042 (1998) mandated that higher education institutions prepare teachers to be able to teach all students in the state with efficiency

and reliability (Hafner & Maxie, 2006). In response, the faculty members in the teacher education department of the college of education at California State University proposed the creation of new course offerings in response to the bill (O'Hara & Pritchard, 2008). Their challenge was to equip the entire faculty in the college of education to present the curriculum and field placement. A professional development committee created a plan to prepare all participants with regard to content and pedagogy (O'Hara & Pritchard, 2008). The professional development committee held face-to-face sessions, had online opportunities for collaboration and communication, and ended with a daylong retreat. The committee expressed confidence that the faculty members completed the activities satisfactorily; that they had worked individually and collaboratively to design the framework for the course offerings in the credentialed program (O'Hara & Pritchard, 2008).

Expectations of teacher education programs vary from state to state; however, they should all put in place a system to prepare pre-service teachers to expand their perspectives in order to encourage the growth and development of all student learners (Bransford et al., 2005). Chong and Cheah (2009) said that an integrated values, skills, and knowledge framework for initial teacher preparation programs would be most effective. They said that Singapore was no different from the rest of the nation in their challenges in education, or in the importance of preparing quality teachers.

### **Conclusion**

RTI is a model meant to decrease referrals for learning disabilities. Federal and state policymakers have encouraged school districts to use RTI to determine special education eligibility in place of the IQ achievement discrepancy model. As a result,

schools can identify at-risk students or low achievers early and review the possible reasons for students' lack of success, asking whether the child's failure was because of poor instruction or an inherent disability (Fuchs & Fuchs, 2001). Implementing the components of RTI for early identification, (providing quality instruction, executing research based interventions and continuously monitoring student progress) is the responsibility of the general education teacher.

Teachers must accept as true that all students have prior knowledge without regard to race, socioeconomic status, gender, ethnicity, or disability and have the capacity to achieve (Chong & Cheah, 2009). No longer, does a teacher just "cover the curriculum," teachers are obligated to ensure that every student in their care meets desired outcomes of achievement. Teachers are under great pressure to make sure their students are reaching higher standards (The Center for the Future of Teaching & Learning, 2004). The American cultural landscape has changed, but the American teaching landscape, apparently, has not: while the student population is more diverse, the majority of teachers in institutes of higher education are still White females.

Institutes of higher education preparing pre-service teachers and education administrators face emergent challenges in view of NCLB provisions requiring all teachers to be "highly qualified" (Cortiella, 2004), prepared to facilitate students to achieve to their greatest potential. In Chapter 3, I discuss the methodology used for this research study, including the purpose, research questions, and design. I also discuss data collection and analysis in the context of the Missouri Standards for Teacher Education Programs (MoSTEP). In Chapter 4, I present and discuss study findings, and in Chapter 5, I discuss recommendations in light of those findings.

### **Chapter 3: Methodology**

No longer is it common or acceptable to allow students to sit in a classroom and watch them get further and further behind their same age peers and fail. Instead of teachers working in isolation, educators must collaborate on the issues facing education in the present day: school reform, cultural diversity, knowledge of high-quality classroom instruction, and research based interventions. School reform efforts such as RTI allow classroom teachers and administrators to set desired outcomes, implement high quality classroom instruction, assess, and act immediately on assessment results to create a continuum of student improvement. This chapter contains a re-statement of the study's purpose; discussions of the research design, the site, the courses under study, the validity and reliability of instruments, and the participant selection methods; and a description of data collection and analysis procedures.

#### **Purpose and Research Questions**

The purpose of this research study was to examine how SSU School of Education faculty members (“faculty”) instructed their students, who were teacher and educational administration candidates (“students”) in RTI (Blanton et al., 2011). The study is intended to encourage faculty to provide instruction in RTI to pre-service teachers and educational administration candidates. The research questions for this study were (a) how do SSU School of Education Faculty members instruct their students—teacher candidates and educational administrators—in RTI? (b) How do faculty teach RTI differently at different levels (e.g., undergraduate, MAT, and education administrator level)? (c) How do faculty members perceive RTI has changed the roles of general

education teachers and administrators? The information from this study could improve education programming at SSU (Fraenkel & Wallen, 2006).

### **Research Design**

Fraenkel and Wallen (2006) define descriptive research as “research to describe existing conditions without analyzing relationships among variables” (p. G-2). A mixed methods research design combines both quantitative and qualitative data analysis. “Qualitative data help researchers understand processes, provide detailed information about setting or context, and emphasize the voices of participants through quotes” (United States Department of Health and Human Services, n.d.). I chose a descriptive mixed methods research design, based on quantitative methods (existing instruction in RTI) and qualitative grounded theory (reviewing the relationship between instruction in RTI and faculty members). Such an approach was a good way to explore the lived experiences of students and faculty at this specific university. Triangulation of the results will combine the strengths of both quantitative and qualitative data to answer the research questions.

### **Theoretical Framework: Grounded Theory**

The instrumentation included survey questions for use as demographic variables in quantitative descriptions, interview questions for face-to-face interviews, and me as the researcher. The developments of the survey instrument and interview questions are discussed later in this chapter. The theoretical framework of grounded theory lends itself to answering the research questions for this study. The researcher had to continually examine the interview responses to develop the theory about faculty instruction in RTI. One method of collecting data in a grounded theory study is through interviews (Fraenkel



& Wallen, 2006; Thomsom, 2011). Grounded theory involves a researcher's deep interaction with the data set to reduce the data from many words to a series of codes and thence to a group of themes connected with quotations from interviewees; they "are not generated before a study begins, but are formed inductively from the data that are collected during the study itself" (Fraenkel & Wallen, 2006, p. 437). The knowledge gathered from constant comparative analysis of data allows formulations of concepts to occur for continual study; thus allowing for modifications to discovered predictions (Piantanida & Garman, 2009; Goodwin, 1983; Liu, 2010).

### **Site Selection**

The SSU is a medium sized, 4-year, private university offering bachelors, masters and doctoral degrees. Of the more than 120 undergraduate and graduate degree programs offered thirteen percent of the undergraduate degrees are declared from the School of Education (The College Board, 2012). Elementary Education and Teaching; Junior High, Intermediate, and Middle School Education and Teaching; art, math, science, social studies, Spanish and French Teacher Education are among the 22 undergraduate programs. The university offers a Master's of Art in Teaching (MAT). The MAT offers teaching degrees with certification preparation in Early Childhood Education and Early Childhood Special Education, and Elementary, Middle School and Secondary Education. Of the eight masters level programs offered are Educational Leadership and Administration, and Elementary and Middle School Administration Principal Leadership; a Doctorate of Education in the area of Educational Leadership and Administration is also offered. SSU is on the national list of teacher preparation programs; an independent, public-serving, liberal arts university located in Missouri. The Mission Statement of the

University and the 11 Missouri standards drove the conceptual framework for SSU's teacher preparation program for beginning teachers. The Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools and the Missouri Department of Elementary and Secondary Education accredited SSU's teacher education programs. The School of Education is a member of the Teacher Education Accreditation Council (TEAC).

### **Course Selection**

The course selection process consisted of reviewing each course description, objectives, and syllabi for courses offered in the Fall of 2011 by SSU School of Education. Both the school of education and the State of Missouri approved the objectives developed by teams of individuals from the university. The course objectives are in alignment with Missouri Standards for Teacher Education Programs (MoSTEP). MoSTEP consists of eight standards including quality and performance indicators. Moreover, they are in alignment with professional competencies for school administrators (advanced) which includes knowledge, dispositions, and performances (Missouri Department of Elementary and Secondary Education, 2004).

I met with the Dean of the School of Education and the Supervisor of Graduate Research, who recommended adding reading and methods courses to add to the interest of the study. I chose the final list of courses for the study because they were beginning courses for those studying to becoming classroom teachers or school administrators in the areas of Master of Arts in School Administration, Master of Arts in Teaching (MAT) and Undergraduate Education.

I selected four courses in the area of Master of Arts School Administration: (a) a course about elementary and secondary school administration and organization, (b) a course about how to enhance student achievement, (c) a course about how to improve an instructional program, and (d) a course about the role of an effective administrator. There was no mention of instruction in RTI in any course description or syllabi at SSU's school of education. The description of (b) enhancing student achievement mentioned how students learn, student motivation, remediation strategies, and school district and building efforts to improve academic achievement. Assignments in the course syllabus did relate specifically to RTI. The two courses in the area of master of arts in teaching were selected because the catalog descriptions and course syllabi contained discussions of effective teaching methods and planning for instructional formats in the elementary, middle and high schools—classes the I expected to involve RTI. The rest of the courses concerned teaching methodologies including differentiated instruction which is directly related to RTI (See Table 1).

Table 1

*Faculty and Student Participants with Course Descriptors*

Subject	Number of Faculty Participants	Number of Student Participants
Elementary and secondary school administration and organization	2	33
Student achievement enhancement techniques	1	3
Instructional program improvement strategies	1	3
Secondary methods of teaching English, math, and science	1	42
Middle and high school classroom teaching and management	2	25
Education of the exceptional child	1	25
Elementary, middle and high school differentiation and classroom management	1	24
Reading practicum	2	28
Analysis and correction of reading disabilities	1	4
Elementary and middle school language arts and math methods	1	16
Totals:	13	200

I interviewed instructors and administrator student participants and surveyed all student participants. In addition to surveying participants and conducting interviews, I reviewed course assignments and tests. I assured students and faculty members that participation in the study would have no bearing on grades or evaluations; participation was strictly voluntary.

## **Sampling Frame**

Because of the specific nature of the research questions, it was necessary to use a purposive sampling course selection process. Purposive sampling allows the researcher to use his or her “judgment to select a sample that they believe, based on prior information, will provide the data they need” (Fraenkel & Wallen, 2006, p. 101). There were a number of courses within the various departments of the school of education from which to choose. I read the course descriptions in the undergraduate and graduate course catalog and reviewed the course syllabi in search of courses to choose for the study. I was probing for key terms like: intervention, preparing to teach, learner needs, effective teaching practices, assessment and differentiated instruction. After reviewing the various course syllabi and discussing with the dean of the school of education, for this study I chose the beginning courses at each level (undergraduate, MAT, education administrator) for degree or certification fulfillment. These courses met most of the ‘key term’ requirements (See Table 1).

I then located the SSU School of Education 2011 Fall 500-600 level education course offerings pamphlet. This pamphlet includes a listing of all the courses offered including faculty instructors, locations and times. I contacted a total of 32 faculty members, both adjunct and full time, who taught the various sections of the 18 selected courses. As an introduction to the research study and myself, I sent an email asking for their participation and stated that I would follow-up with a telephone call if I had not received a response within two weeks from the email. The initial responses were slow, so I began to call the faculty members that I had not heard from. In addition to the telephone contacts, I visited faculty members during their office hours at the university

and met the adjunct professors before or after their classes. I received a more favorable response from faculty with the face-to-face contacts; although a few declined to participate.

A total of 13 (six adjunct and seven full time) faculty members emerged willing to participate in the research study. Faculty who taught those courses consented to participate determined the accessibility of student participants (sampling frame) from the school of education at SSU. I personally visited the classes of each of the participating instructors to introduce the research study and myself. One full time faculty member even offered to have his class meet in the computer lab to encourage them to complete the on-line survey following my introduction. The students had a choice to complete a paper copy of the survey or access the survey instrument on the internet at [Zoomerang.com](http://Zoomerang.com). (See Appendix B) I sent a link to the survey to each of the participating instructors requesting them to forward the link to all students in each of their courses.

I conducted face-to-face interviews with the participating faculty members and the graduate education administrator students who volunteered when I visited their class to introduce myself and the research study. I contacted each of the interviewees by email or cell phone to make arrangements for the interviews. I made myself available to the schedule of those who agreed to participate in the interview process. Most of the interviews were conducted at the SSU, three at satellite locations; one telephone interview and another off site. Fraenkel and Wallen (2006) said that personal interviews are the most effective means for enlisting participants' cooperation in a study (Fraenkel & Wallen, 2006). Another advantage of interviewing is that doing so allows for question

clarification and for respondents to expand their responses. I used Zoomerang.com as the source for quantitative data analysis and compared the data between undergraduate, MAT, education administrator students, and faculty to answer the research questions.

### **Instrument Development**

I created my own interview and survey instruments (see Appendix A, Appendix B, and Appendix C) using the Research Triangle Institute's Question Appraisal System (QAS-04) by Willis and Lessler (2006). This system designed to help evaluate survey questions to eliminate any potential problems before using them in the field. The QAS-04 system has 11 steps; I used eight of them, eliminating the assessment for sensitive nature or bias, that for finding translation problems, and that for cross-cultural considerations, as I anticipated no risks in this setting for any of these issues. These processes helped to avoid problems with (a) reading level; (b) unclear introductions, instructions, or explanations; (c) communicating the intent or meaning; (d) faulty assumptions or underlying logic; (e) over-reliance on participants' knowledge or memory; (f) breadth of response categories (too narrow or too broad; (g) cross-questions that overlap or contradict each other; and (h) other issues. I aligned the survey and interview questions with the MoSTEP performance standards and professional competencies (Missouri Department of Elementary and Secondary Education, 2006).

In deciding what types of questions to ask on the student survey, I had to consider the outcome. The demographic questions were directly related to the field of study and their year in the program. The following questions were specifically related to knowledge of RTI. The demographic information requested in the faculty interview was to gather information about their background experience as a career educator. As stated

in Study Limitations, Question 4 yielded a high number of missing responses, perhaps because of unclear wording. It begins, “If your coursework did not cover RTI...,” which could be interpreted to mean that only those whose coursework did not cover RTI should answer the question.

The summer before the research began, I met with two instructors and their graduate classes to pilot the survey and interview questions (Yin, 1994). I asked the participants to apply the QAS-04 system to the presented survey and interview questions. Some participants said that certain questions lacked clarity or relevance and that another rested upon faulty information. Because of this discussion, I revised some questions and eliminated others.

Data collection consisted of (a) administering (graduate and undergraduate) student surveys, (b) conducting faculty interviews, and (c) conducting graduate student interviews. Fraenkel and Wallen (2006) discussed two major types of surveys: cross-sectional and longitudinal. Since a longitudinal study was not appropriate, being “a study in which information is collected at different points in time in order to study changes over time” (pp. G – 4), this survey was designed to be cross-sectional. “A cross-sectional survey collects information from a sample that has been drawn from a predetermined population” (Fraenkel & Wallen, 2006, p. 398) and at a single point in time.

### **Participants**

Participants in the study included 13 faculty instructors (six adjuncts, seven full time) and 196 of their students. Instructors had experience ranging from three to 14 years with SSU. Several instructors had served as adjunct instructors prior to becoming full time instructors at the university. Approximately half said that they were assigned the



courses they taught, some said that they chose which courses to teach, and the remainder said that their course assignments occurred, in the words of one participant, because “there was an opening.” Instructors’ years of experience in public school settings varied from eight to 17 years teaching K – 12 and from four to 20 years as administrators. Some of the faculty had served as content coordinators for several years and some in central office positions for as many as 18 years. It was not possible to surmise from this data set how long it had been since each instructor had been directly involved with classroom teaching, either as a teacher or as an administrator. Since RTI is a relatively new concept, the length of time since participants had been directly involved with teaching could be a confounding variable, as some may never have been trained in RTI. Each of the students in the 13 instructors’ classes was invited to complete the teacher and education administrator candidate survey; 196 participated by completing surveys.

### **Survey Questions for Students**

The final questions that resulted from the pilot discussions follow. They are relevant to this research because their focus is participants’ knowledge of RTI and on the attainment of that knowledge.

1. What academic program did (are) you pursue(ing) at Study Site University?  
*One element of triangulation.*
2. What year are you in your program? Respondents chose from the following categories: freshman, sophomore, junior, senior, graduate student, graduate, or other. This question necessitated additional instructions so participants could understand the difference between being a “graduate student” and a

“graduate” (one who is no longer in a program). *Another element of triangulation.*

3. In your coursework, were you aware of the development of RTI? This question set the focus for the survey and determined where the respondent gained knowledge of RTI. Participants needed clarification that the question related only to their coursework at SSU. There was discussion regarding rather this question would direct a person to the next question or if they were to skip a question because of their response. This question also assumes the respondent knows what RTI is. Because of this discussion, prior to an interview or distribution of surveys, the researcher gave this brief description of RTI: response to intervention integrates assessment and intervention within a multi-level prevention system to maximize student achievement and to reduce behavior problems (NCRTI, 2009).
4. If your coursework did not cover RTI, what impact, if any, do you think this will have on you as a teacher/administrator? RTI is a general education initiative that creates a shift in thinking for the general education teacher (Hazelkorn et al., 2011). The researcher asked this question to find out if the respondent possibly had knowledge of RTI from some other source and was aware of the impact it would have on a teacher or an administrator. It is the general education teacher’s responsibility to make sure that every child in their care is successful and when a student is not successful, modify the curriculum for their success.

Questions five through 10 were knowledge questions directly related to RTI. Each question had response categories. These questions made the assumption the participants knew about RTI: what it is, its components, and the purpose of the data in RTI.

### **Interview Questions for Students of Education Administration**

Some of these students were already serving as administrators in their own schools. School leaders such as administrators are vital to promoting school reform, leading teachers, and providing a quality education for all of their students (Leithwood, Louis, Anderson, & Wahlstrom, 2004). At the time these interview questions were formulated, I was interested in discovering what education administrators knew about RTI, their perceptions of RTI's effect (if any) on their roles as school leaders, and whether they gained this knowledge from SSU. The information gathered from the interviews supported the central focus of the study. Prior to the interview, participants were informed that their participation in the study was voluntary and they could choose not to participate at any time; and that personal information would be kept confidential and their responses would not be used for evaluation of academic performance.

When conducting interviews, it is important to “establish an atmosphere of trust, cooperation, and mutual respect” (Fraenkel & Wallen, 2006, p. 456) with the interviewee to gain the optimum responses. I recorded the interviews for efficiency and time sake. This allowed the interview to flow from one question to the next without the interviewee having to wait for the interviewer to write the response (Fraenkel & Wallen, 2006). The setting was informal and conversational; each interviewee was given the same questions

in the same order as in a standardized format, allowing for an increase in shared responses (Fraenkel & Wallen, 2006). The interview questions were as follows:

1. What is your current role in the school setting? Answers included building administrator, assistant, or classroom teacher. This background information established the “respondent’s point of view” (Willis & Lessler, 2006, pp. 3-9) in the analysis of data.
2. In your current position, do you use RTI? Components of RTI? If so, in what way? This question established the participants’ perception of RTI’s relevance or commitment to using RTI.
3. What are the major components of RTI? No answer choices were given to the respondent. The question established participants’ knowledge of RTI.
4. In your course work, what, if any, specific information did you receive concerning RTI? Respondents were required to recall specific knowledge about RTI gained from courses taken at SSU. Memory comes into play depending on when the respondent had a class and whether the information made a connection to their prior knowledge. If RTI was a topic of low importance for the respondent, recall of specific elements may have been difficult.
5. If your coursework did not cover RTI, what effect, if any, do you think this will have on the role of an educational administrator? This question targeted a level of the perception of RTI knowledge in reference to the role of the instructional leader.

6. What knowledge do you suppose educational administrators need to know about RTI? This question allowed an opportunity for the respondent to share his knowledge of and commitment to RTI.
7. In your coursework, were there any discussions about improving the achievement of the struggling learner? If so, how often did these occur? Again, here the researcher expected the respondent to recall information from previous courses.
8. What type of professional development would you require to assist you in supporting teachers with struggling learners? The role of the school principal or education administrator has evolved to a role of instructional coach. “Consequently, it is the collective community of teachers, led by the principal that is key to promoting school wide learning” (The Center for the Future of Teaching and Learning, 2011, p. 3). *What type of professional development would you implement or suggest for teachers working with struggling learners?* It is the role of the principal to promote learning and support teachers. The Center for the Future of Teaching and Learning (CFTL) (2011) suggests, “School leaders build a culture of trust in schools so that adults open their practice to one another and can learn from their peers” (p. 4).
9. What are your thoughts from your field experience observations of administrators’ integration of RTI? To what degree was it being taught, introduced, modeled, and observed? This question was intended to relay use of RTI by administrators in their field experience.

10. What other information concerning RTI would you like to have known from your coursework at SSU? Lastly, this question offered an opportunity for the respondent to share what beliefs about gaps in knowledge that may have arisen from SSU coursework.

### **Interview Questions for Faculty**

The faculty interview questions were similar to the education administrator students' questions, hence useful for comparing groups. The initial questions (1-4) were for gathering background information about the faculty member.

1. What courses do you teach for Study Site University?
2. How long have you taught for Study Site University?
3. Did you select the courses you teach or were they assigned to you?
4. Are you currently working in a public school? If so, what is your role? If not, what was your previous experience in the setting?

The next set of questions was designed gain knowledge of how faculty members' instructed their students to use RTI.

5. In your course(s), how often were there discussions about improving the achievement of the struggling learner?
6. What were your current/past experiences with Response to Intervention?
7. Do you incorporate Response to Intervention into the courses you teach for SSU? Why or why not? (If not, interview will be complete. To what degree is it being taught?
8. How have your background and perspectives impacted the integration of RTI into your course syllabus?

The last two questions led to acquisition of artifacts from the faculty participants: course descriptions, course syllabi, the MoStep performance standards and professional competencies. Further, the questions led to information regarding how instructors integrated RTI into their courses.

9. Provide an example of an activity focused in RTI that you use in your class.
10. Do you assess students' knowledge of RTI? If so, how? Please provide a copy of activity or assessment.

The qualitative research method led to extraction of information from the participants through survey and interview questions. I approached this study with the anticipation of RTI being an important topic of discussion in undergraduate teacher education and education administrator courses.

### **Data Analysis**

Since this was a descriptive mixed methods study, data analysis was performed through descriptive observation. For the quantitative phase, I used SPSS 21 to collate descriptive data and then to explore relationships among variables. The final analyses were directly developed to answer the research questions. For the qualitative phase of this study, I used Atlas.ti 7 and NVivo 10 to interact with the qualitative data transcribed from interviews and open-ended survey questions. I transcribed the recorded education administrator and faculty interviews and cross referenced responses with course syllabi and course descriptions for the purpose of answering the research questions. I immersed myself in the data and coded each interview and each set of open-ended answers. I performed word frequency counts by participant while excluding words with (a) fewer than five letters or (b) no relevant meaning for the study. From the word frequency list I

was able to calculate associations among words, and these associations, along with my own sense of the data, led to the development of the list of themes described in Chapter 4: Results. Quantitative analysis was the methodology of choice for data that was easy to classify into variables. Survey answers other than free text input fell into this category. I used SPSS 21 to describe the data using frequency and descriptive analysis and to perform the inferential procedures.

### **Qualitative Analysis**

I began the qualitative analysis by immersing myself in the interview data and reading the transcripts multiple times to try to get a sense for each participant's perspective. I decided to use not only my own impressions of the data, but tools available for analyzing text in a more quantitative manner in order to prevent bias. I performed a word frequency tally for the most frequently used words that I considered relevant to the analysis and that had five or more letters. I used the tally of words to generate a tag cloud, or a paragraph of words in alphabetical order with font size as an indicator of word frequency. See Chapter 4 for the tag cloud and a discussion of its meaning. I also used association constants to demonstrate which words were more likely to be used in the same context. I examined the resulting quotations to look for possible codes and themes as is frequently done when using grounded theory as a framework, and found major themes which are discussed in more detail in Chapter 4. These codes and themes were the result of data reduction, which was performed using both grounded theory and the quantitative tools available in NVivo 10. Between using myself as an instrument and using the software to find subtleties that I may have missed—and to screen out bias—I



finalized my list of themes, the rationale for which is easy to trace and the steps for which are easy to replicate.

### **Chapter Summary**

The purpose of this study is to examine how SSU School of Education Faculty members instruct teacher candidates and educational administrators on Response to Intervention (RTI), a method for helping struggling learners (Blanton et al., 2011). School reform efforts such as RTI allow classroom teachers and administrators to set desired outcomes, implement high quality classroom instruction, assess, and act immediately on assessment results to create a continuum of student improvement. In Chapter 3, I revisited the purpose and research questions, outlined the research design including the theoretical framework, the sampling frame, data collection techniques, participant attributes, site selection, and course (instructor) selection. I also described the instrumentation and the data analysis methodology. For the quantitative phase of this research study, I used SPSS 21 to collate descriptive data and then to explore relationships among variables. For the qualitative phase of this study, I used Atlas.ti 7 and NVivo 10 to interact with the qualitative data transcribed from interviews and open-ended survey questions. Chapter 4 contains the findings from the study; those findings are discussed further in Chapter 5.

## **Chapter 4: Results**

Schools of education have a responsibility to pre-service teacher educators: to prepare them to successfully meet the academic challenges of the students they will serve. The purpose of this research study was to examine how SSU School of Education faculty members instruct teacher candidates and educational administrators on Response to Intervention (RTI), a method for helping struggling learners (Blanton et al, 2011). School reform efforts such as RTI allow classroom teachers and administrators to set desired outcomes, implement high quality classroom instruction, assess, and act immediately on assessment results to create a continuum of student improvement; “Schools with well-organized intervention systems tend to achieve higher success for all students” (McNulty & Gloecker, 2011, p. 9). RTI integrates assessment and intervention within a multi-level prevention system to maximize student achievement. In Chapter 4, I will review the quantitative analysis of the on-line survey, the relationships among the quantitative variables, including a discussion of the qualitative analysis, and emergent themes.

### **Quantitative Analysis of the Online Survey**

Descriptive statistics are different for different variable measurement levels, but regardless of measurement level, they are methods for describing a sample in terms of the data gathered. Measurement levels, for the purpose of this study, are (a) scalar (which have real number values for scales such as weight, height, or, in the case of data from Likert-style questions, level of agreement with a statement), (b) nominal or categorical (which have a finite number of discrete categories in no particular order), and (c) binary (which have only two possible values; some researchers use binary variables as nominal

variables for the sake of analysis). Nominal variables have meaningful measures of central tendency (mean, median, mode) and dispersion (standard deviation, variance, skewness, kurtosis) only if they are scalar (e.g., Likert) or binary. Any nominal variable, even if it is also Likert or binary, can be described by showing the frequency with which participants selected each category (Mickey, Dunn, & Clark, 2010). The survey contained (a) Likert-style questions, the data classified as nominal or scalar; (b) questions that produced nominal data; and (c) questions that produced binary data. Table 2 is a list of questions with their types and measurement levels. Descriptive data provided for each variable based on its measurement level.

Table 2

*Survey Questions with Data Characteristics*

Question	Number of Possible Answers	Type	Measurement Level
Q1: What academic program did (are) you pursue (pursuing) at SSU?	Unlimited	String	Nominal
Q2: In what year are you in your academic program?	7	Numeric	Nominal
Q3: In your coursework, were you aware of the development of RTI?	3	Numeric	Likert nominal or scalar
Q4: If your coursework did not cover RTI, what impact, if any do you think this will have on you as a teacher/administrator?	3	Numeric	Likert nominal or scalar
Q5: RTI is best described as...	3	Numeric	Nominal
Q6: Progress monitoring assessment occurs...	3	Numeric	Nominal
Q7: 80% of the student population must be at bench mark in order for the core curriculum to be considered successful?	2	Numeric	Binary (True-False)
Q8: Essential components of an RTI model are...	4	Numeric	Nominal
Q9: What is a scientific or evidence-based intervention?	3	Numeric	Nominal
Q10: Data can be used to...	4	Numeric	Nominal

**Nominal Variable Frequencies and Percentages**

All variables in this study could be considered nominal, and some could also be considered scalar or Likert or binary. I generated frequencies for each variable and

created pie charts for any variable for which the number of selections for each category was best expressed as a portion of the total number of participants—and this was true for most variables. Table 3 shows how many participants answered each question.

Participants had the option of skipping questions; the electronic survey did not force an answer to any questions. Almost 200 students responded to the email survey out of a possible 255: an estimated response rate of 78%.

Table 3

*Number of Participants by Question*

	N	
	<i>Valid</i>	<i>Missing</i>
Q1: What academic program did (are) you pursue (pursuing) at SSU?	196	0
Q2: What year are you in your academic program?	196	0
Q3: In your coursework, were you aware of the development of RTI?	193	3
Q4: If your coursework did not cover RTI, what impact, if any do you think this will have on you as a teacher/administrator?	177	19
Q5: RTI is best described as...	193	3
Q6: Progress monitoring assessment occurs...	189	7
Q7: 80% of the student population must be at bench mark in order for the core curriculum to be considered successful?	191	5
Q8: Essential components of an RTI model are...	187	9
Q9: What is a scientific or evidence-based intervention?	187	9
Q10: Data can be used to...	190	6

**Question 1: What academic program are you pursuing at SSU? All 196**

respondents answered this question. Respondents could make any answer to an open-

ended question. Consolidating their answers produced the chart in Figure 3. Many respondents were pursuing degrees in education or in teaching certificate programs along with a degree in an area of specialty such as music or special education. The total number of programs identified by the participants in this study was 19. Individual degrees being pursued by the 196 participants who responded to this question, however, totaled 234. Twenty-two percent of the participants were pursuing a teaching certificate, 13% administration and 11% counseling. Other areas of specialization were usually pursued in combination with a teaching certificate or a bachelor’s degree in “education.”

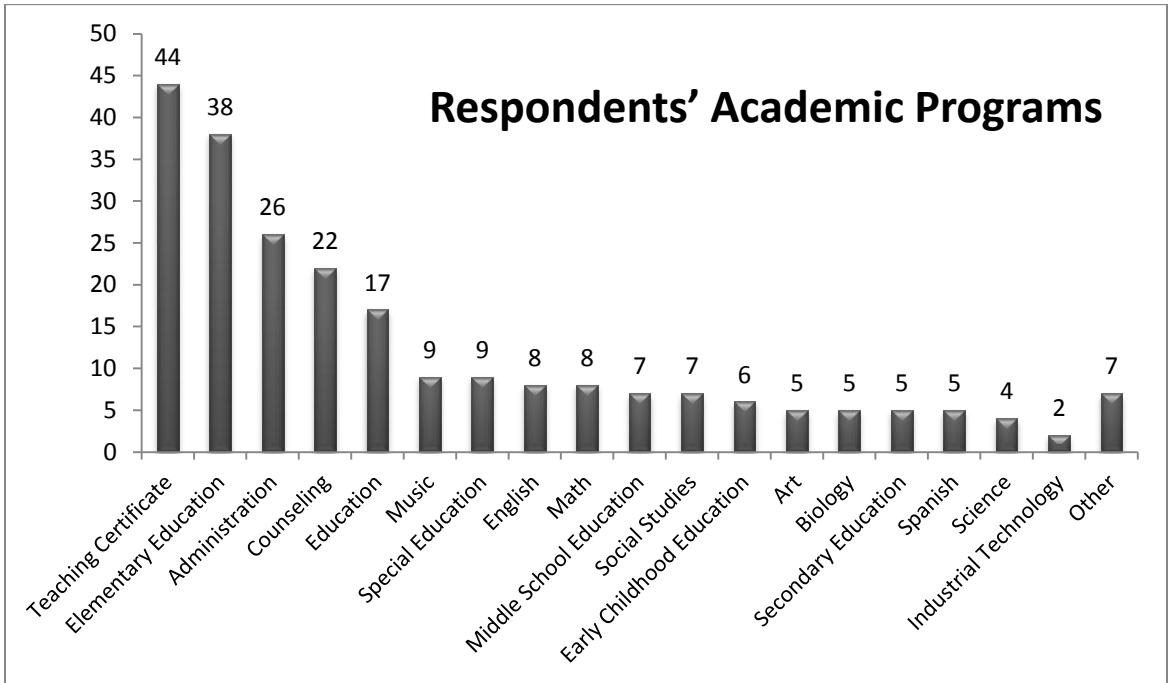


Figure 3. Question 1: The number of participants pursuing each area of study.

**Question 2: In what year are you in your academic program?** Again, all 196 respondents answered this question. Figure 4 shows their education levels. Most (48%) were graduate students. Almost as many (80) were undergraduates, the majority of those (55) being seniors. Twenty-two had either graduated or were pursuing doctoral degrees.

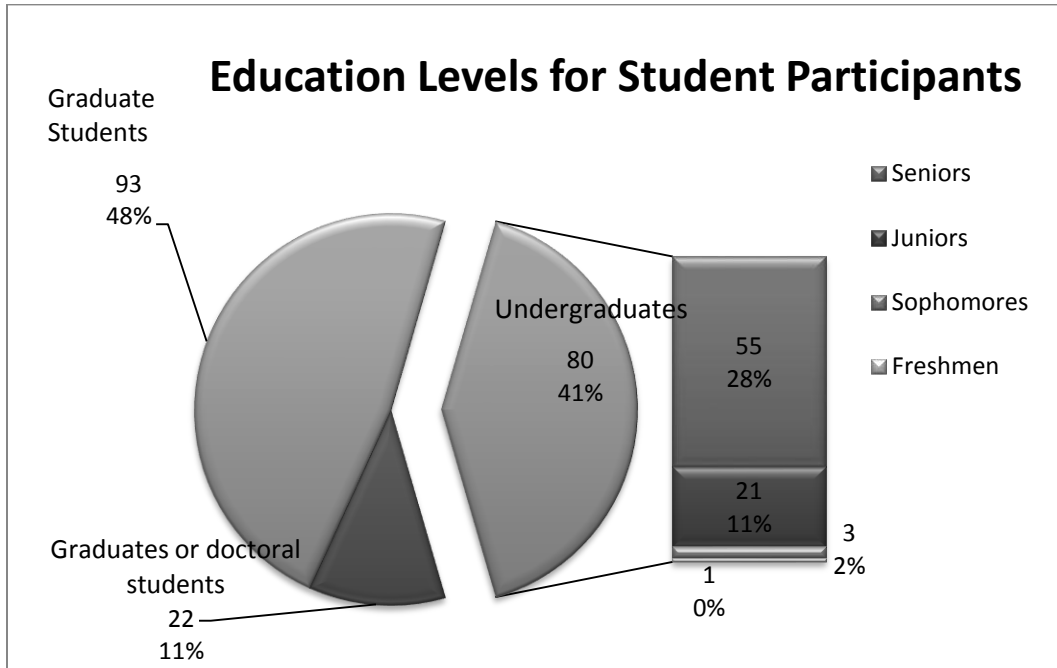


Figure 4. Question 2: Education levels for student participants.

**Question 3: In your coursework, were you aware of the development of RTI?**

Of the total number of respondents (193) who answered this question, most (36%) were not aware of the development of RTI through their coursework. The rest (64%) were either “somewhat aware” or “aware.” See Figure 5. (This is further illustrated in Figure 23 on page 81, which shows Mean knowledge scores by participants’ academic focus categories.)

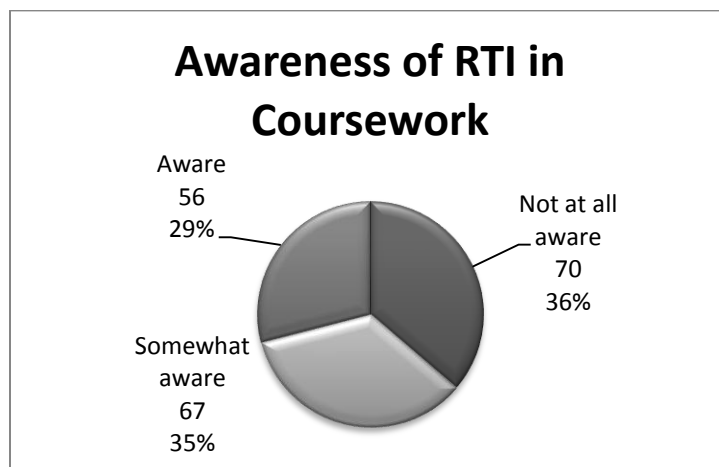


Figure 5. Question 3: In your coursework, were you aware of the development of RTI?

**Question 4: If your coursework did not cover RTI, what impact, if any, do you think this will have on you as a teacher/administrator?** Only 177 participants answered this question. As Figure 6 shows, the number of missing answers for this question was higher than for any other question.

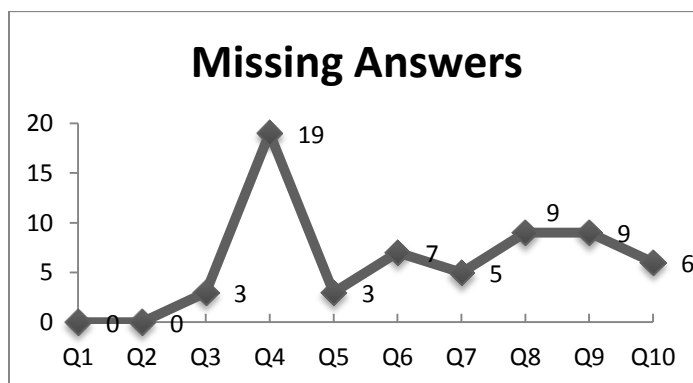
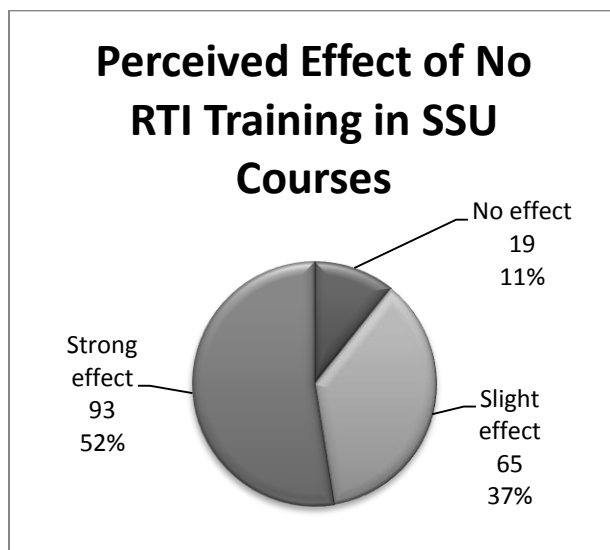


Figure 6. Question 4: Missing answers by question. Note that this item has the greatest number of missing answers.

Among those who answered the question, more than half (52%) said that not having RTI covered in their coursework would have a strong effect on them as teachers or administrators. Comparatively few (11%) said that it would have no effect at all. The rest said that it would have a slight effect. See Figure 7.





*Figure 7.* Question 4: Participants' ratings of the effects of not having RTI covered in their coursework at SSU.

### **Content Knowledge Questions**

Questions 5 – 10 are content knowledge questions intended to test the participants' understanding of RTI (as opposed to their opinions about it). This section contains summaries of participants' answers to these questions. The content knowledge questions were also used to calculate knowledge scores (discussed elsewhere in this dissertation).

**Question 5: RTI is best described as....** This was the first of the questions designed to test participants' comprehension of RTI. Participants were given the following choices: (a) the practice of providing school programs based upon the needs of the most successful students, (b) the practice of providing high quality instruction and intervention matched to student need, or (c) the practice of providing instruction based upon our instincts for what students need and using instructional strategies we are most comfortable teaching. Figure 8 shows the number of participants who chose each option.

Encouragingly, most (90%) chose (b) “the practice of providing high quality instruction and intervention matched to student need,” the correct definition. Twenty participants (10%) chose incorrectly. Interestingly, although the students knew the correct definition a smaller percentage stated RTI had not been covered in their class.

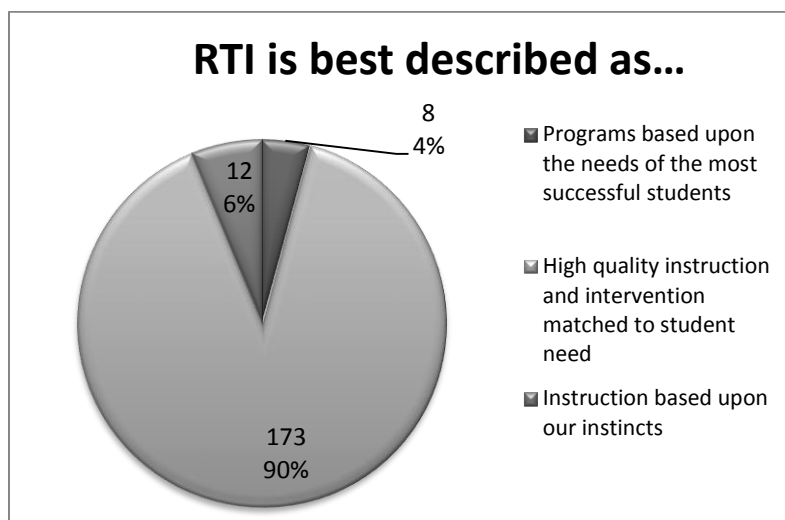
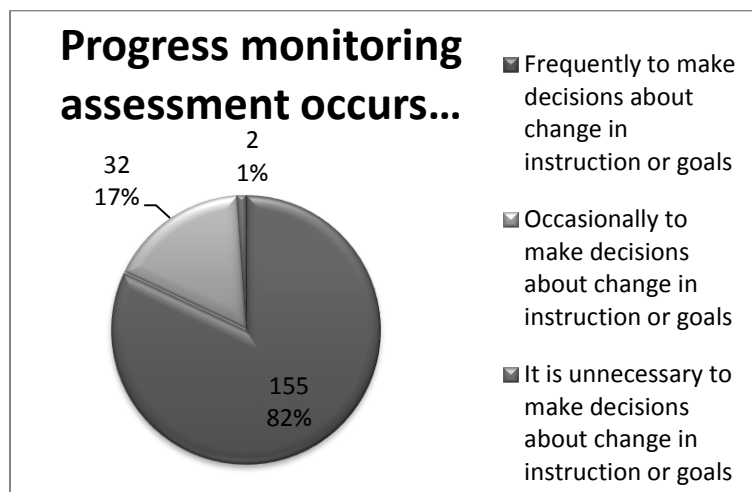


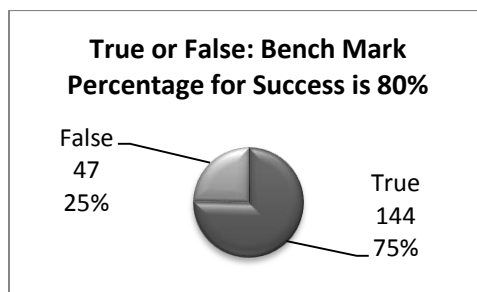
Figure 8. Question 5: Participants’ choices for best description of RTI.

**Question 6: Progress monitoring assessment occurs....** Similar to Q5, this question was designed to test participants’ knowledge of RTI. Choices for ending the sentence were (a) frequently to make decisions about change in instruction or goals, (b) occasionally to make decisions about change in instruction or goals, and (c) not necessary to make decisions about change in instruction or goals. Most participants (82%) chose (a) “Frequently,” but many chose (b) “Occasionally.” Although I intended the correct answer to be (a), for the purpose of analysis one might include both (a) and (b) as correct answers. However, the sense of RTI is clear for those who understand it. Frequent appraisal is integral to the concept. By this reasoning, 82% answered correctly. See Figure 9.



*Figure 9.* Question 6: Participants' choice for how often progress monitoring assessment occurs.

**Question 7: 80% of the student population must be at bench mark in order for the core curriculum to be considered successful.** This was a true-false question. This foundational percentage represents the standard level of projected results, “the core program” (Shapiro, 2011, p. 1). Most respondents (75%) correctly selected “true.” That leaves 25% without the correct information and raises the question of whether some common characteristic was shared among the 25% who selected “false.” This question along with Questions 3, 4, and 6 are discussed in greater depth in the section about relationships among quantitative variables.



*Figure 10.* Question 7: True or False: 80% of the student population must be at bench mark in order for the core curriculum to be considered successful.

**Question 8: Essential components of an RTI model are....** Only nine participants did not answer this question ( $n = 187$ ). Respondents selected from among these possible answers: (a) data-based decisions, (b) three-tiered model, (c) problem-solving methodology, and (d) all of the above. The correct answer was (d) all of the above. See Figure 11 for results. Most (82%) selected the correct answer. The other 18% identified only one of the other three choices. Most of these (15% of the total) said that a three-tiered model was the only component of RTI offered in the possible answers to the question.

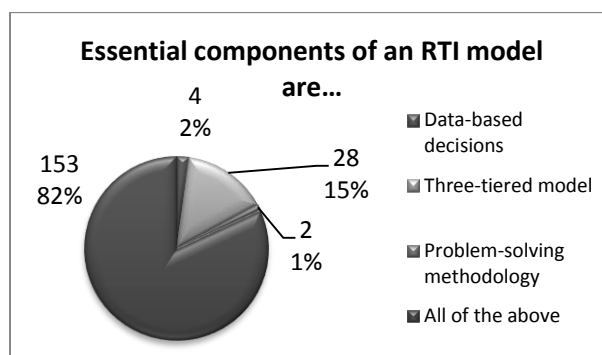


Figure 11. Question 8: Perceived essential components of an RTI model.

**Question 9: What is a scientific or evidence-based intervention?** Respondents selected one from among these options: (a) practices that have been thoroughly reviewed to determine whether they produce positive educational results in a predictable manner, (b) practices that professionals deem appropriate for an individual child or (c) practices that have been published in a magazine, newspaper, or other periodical. See Figure 12 for results. Most (79%) correctly selected (a) practices that have been thoroughly reviewed. Nearly 20% selected one or the other of the two remaining answers.

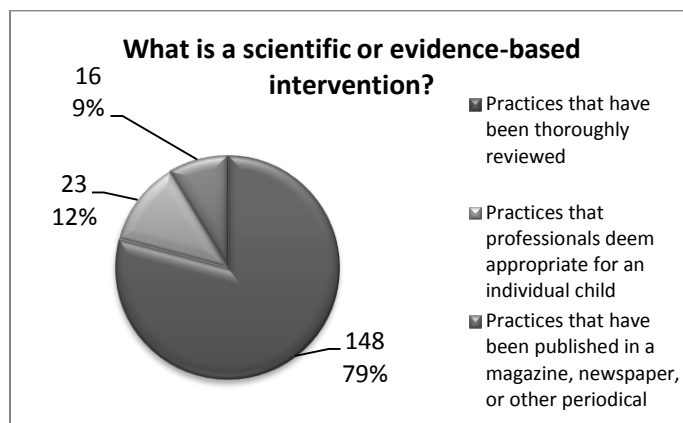


Figure 12. Question 9: What is a scientific or evidence-based intervention?

**Question 10: Data can be used to....** Respondents selected one from among the following options: (a) analyze school data for strengths and weaknesses, (b) monitor students' progress, (c) to determine if changes in the instructional program are effective, or (d) all of the above. See Figure 13 for results. Most, in fact 95% correctly selected (d) all of the above. Only 5% selected any of the other options.

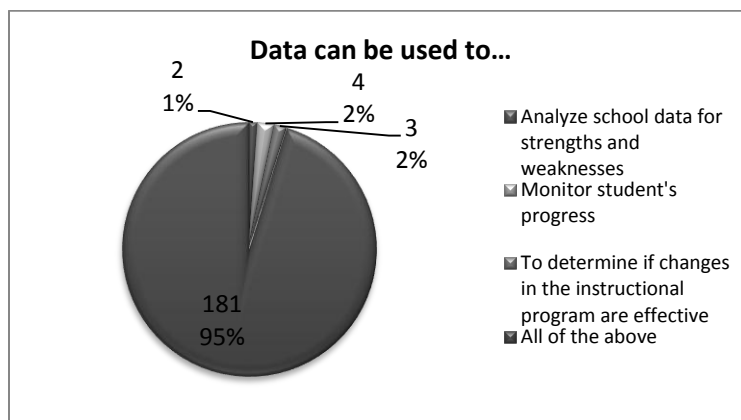


Figure 13. Question 10: Data can be used to....

### Knowledge Score

To analyze knowledge questions, I calculated scores for each participant based on the number of knowledge questions they answered correctly. Participants scored 1 for each correctly answered question. Knowledge score for each participant was the average

of all their score variables expressed as a percentage. Anyone who answered all knowledge questions correctly would receive a score of 100%. The knowledge questions with the percentage of participants who answered them correctly are in the bar graph in Figure 14. A box plot of individual knowledge scores is in Figure 15. Note that the median score was high at .83 and that the mean was quite close to the median at .84. Standard deviation was .18.

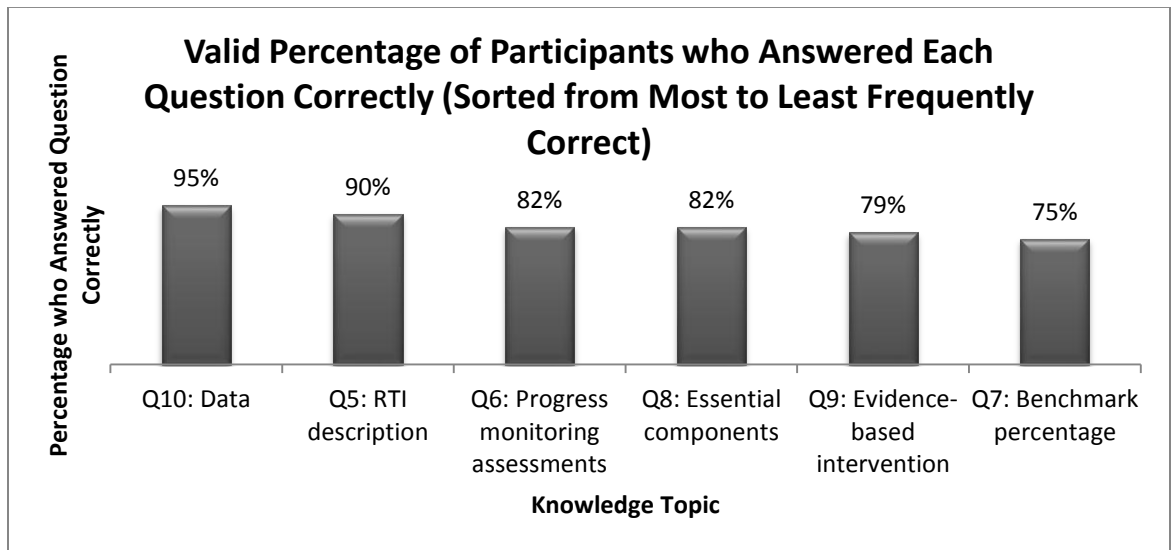


Figure 14. Bar graph of percentage of participants who did not skip the question (“valid percentage”) who answered each question correctly.

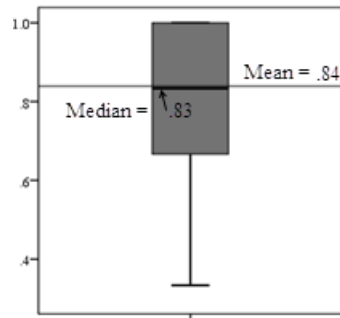


Figure 15. Box plot of knowledge scores. The long line is the mean, .84. The short line in the center of the shaded box is the median, very close to the mean at .83.

### **Relationships among Nominal Variables for Questions 1 – 4**

Table 8 through Table 13 in Appendix D: Cross Tabulations of Demographic Variable Pairs show the counts in shared categories for questions 1 – 4. The same information, in bar chart form, is included below in Figure 16 through Figure 21. The open-ended data collection method for this question allowed so much variability that categories cannot be compared against each other. For instance, many who were majoring in teaching were also majoring in something else, like math. Comparing the teaching category to the math category, therefore, had little practical meaning. Other comparisons had more validity. In all cases, comparisons were by number of people in the category rather than percentage, and this is important because a category with many people might look like it has a stronger relationship with a category from the other variable simply because more people were in that category to begin with.

*Academic focus by academic level.* Figure 16 shows academic focus by academic level. I used 3 levels: (a) undergraduates, (b) graduate students, and (c) graduated or post graduate students. The population of administrators unintentionally included three doctoral students who were enrolled in the administrative courses. Among undergraduates, none were studying counseling or administration, perhaps because these majors were not offered to undergraduates at SSU. Many undergraduates (24) were studying elementary education or an art such as music or art or a foreign language. Among graduate students, most were in a teaching program; this fact accounts for the high number of graduates (30) in that academic category.

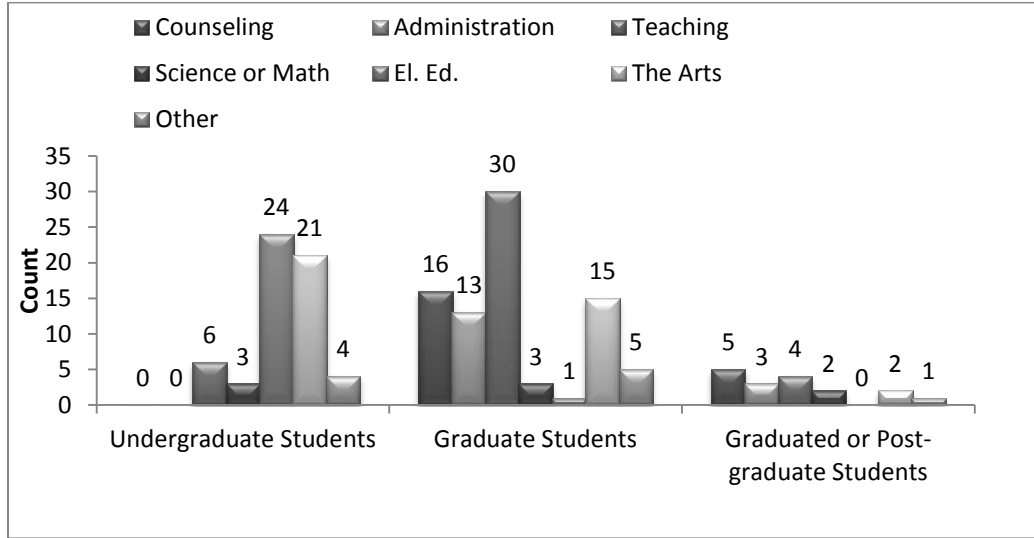


Figure 16. Academic focus by academic level.

*Academic focus by level of awareness of RTI through coursework.* Figure 17 shows the relationships between categories of academic focus and awareness (“not at all” through “aware”) of RTI from coursework at SSU. Nineteen of those studying the arts were not aware of RTI through their coursework.

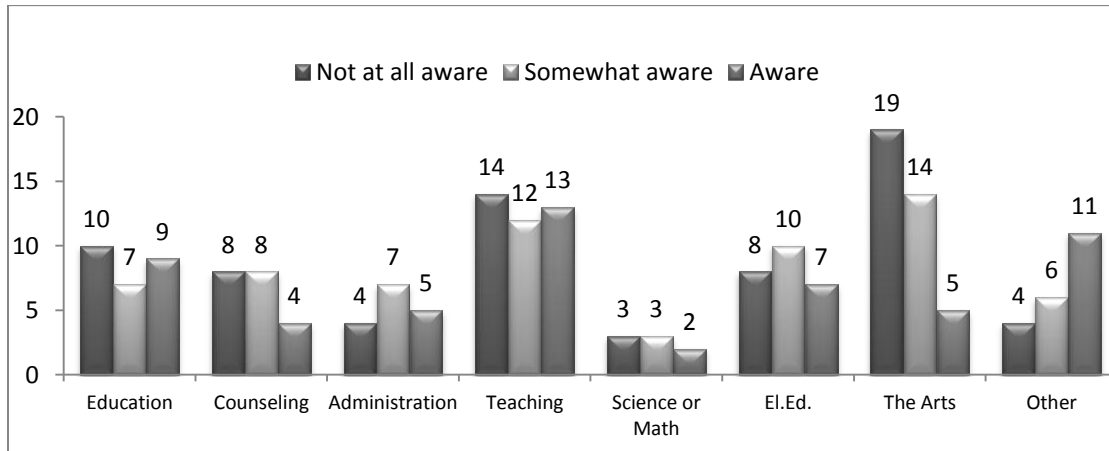


Figure 17. Academic focus by awareness of RTI through coursework.

The expected frequency for academic focus by awareness of RTI is an equal distribution of awareness. In other words, I expected that RTI would have been covered in undergraduate, graduate, and post-graduate curricula alike. Regardless of academic



focus, students should have an equal chance of having been introduced to RTI.

*Academic focus by perceived importance of RTI.* Students were more likely to consider RTI to be important to their roles as teachers and administrators because of their areas of academic focus (Figure 18). For instance, science and math majors did not consider RTI to be as important as teaching majors did.

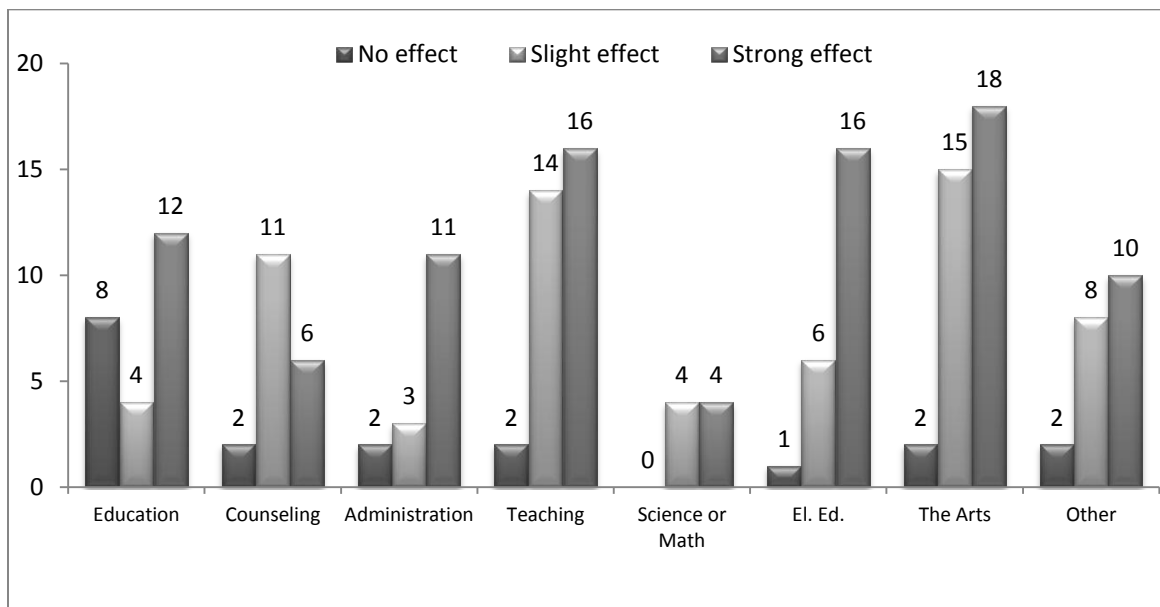


Figure 18. Academic focus by perceived importance of RTI.

The cross tabulation in Table 4 shows which categories of academic focus were different from expected. More education majors than expected said that not being trained in RTI in their coursework at SSU would have little or no effect on them as teachers or administrators. More counseling majors than expected said that not having RTI training in their coursework at SSU would have a slight effect on them, and fewer than expected said that it would have a strong effect. The problem with interpreting these responses is that their reasoning is unclear. Perhaps education and counseling majors were learning about RTI through their own work or had learned about it in other areas; perhaps they did not consider it important to their future careers. The qualitative aspect of this study is

important to understanding how educators or counselors perceive the role of RTI for themselves. On the other hand, more elementary education majors than expected said that RTI was very important.

Table 4

*Cross tabulation: Areas of Study (Categorized) \* Q4*

Areas of Study (Categorized)		Q4: If your coursework did not cover RTI, what impact, if any, do you think this will have on you as a teacher/administrator?			Total
		<i>No effect</i>	<i>Slight effect</i>	<i>Strong effect</i>	
Education	Count	8*	<5*	12	24
	Expected Count	2.6	8.8	12.6	24.0
Counseling	Count	<5	11*	6*	19
	Expected Count	2.0	7.0	10.0	19.0
Administration	Count	<5	<5	11	16
	Expected Count	1.7	5.9	8.4	16.0
Teaching	Count	<5	14	16	32
	Expected Count	3.4	11.8	16.8	32.0
Science or Math	Count	<5	<5	<5	8
	Expected Count	.9	2.9	4.2	8.0
Elementary Education	Count	<5	6	16*	23
	Expected Count	2.5	8.4	12.1	23.0
The Arts	Count	<5	15	18	35
	Expected Count	3.8	12.9	18.4	35.0
Other	Count	<5	8	10	20
	Expected Count	2.1	7.3	10.5	20.0
Total	Count	19	65	93	177
	Expected Count	19.0	65.0	93.0	177.0

\* Actual vs. expected counts differ by > 3.

**Academic level by awareness of RTI through coursework at SSU.** Figure 19

is a breakdown of academic level by awareness of RTI. A total of 16 (29%) undergraduates were aware of the development of RTI, whereas six (9%) of the

graduated or doctoral students were aware. The graduate students (61%) were the largest number of students (34) aware of the development of RTI. The higher response rate of graduate students could be due to their current experience within a school setting.

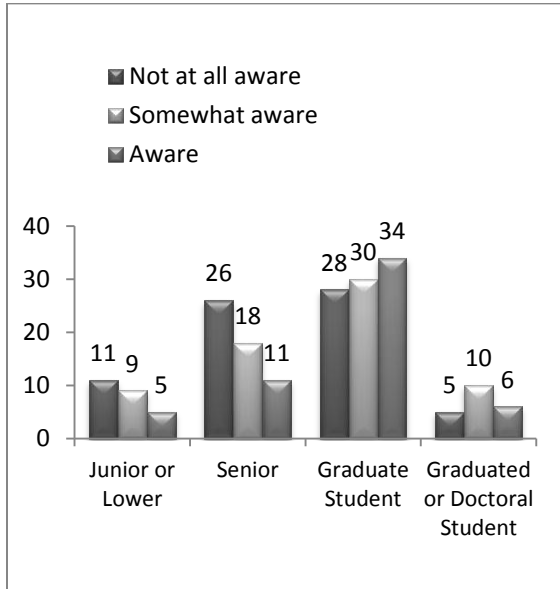


Figure 19. Academic level by awareness of RTI.

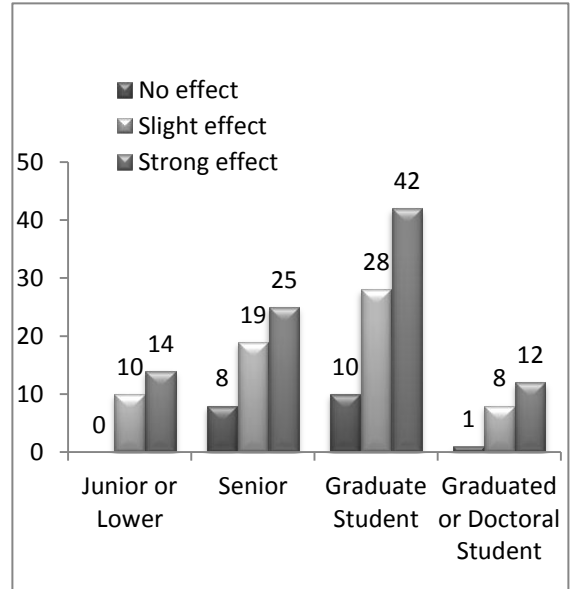
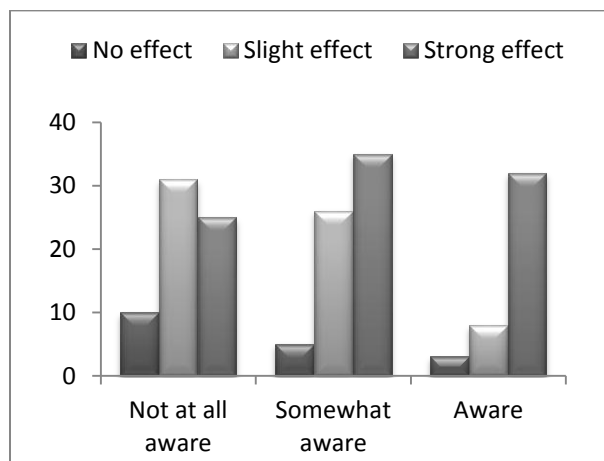


Figure 20. Academic level by perceived effect of no RTI training.

**Academic level by effect of no RTI training on teaching or administrative roles.** Figure 20 is a breakdown of academic level by perceived effect of no RTI training on participant’s future roles as teachers or administrators. Figure 21 is awareness of RTI by career effect of no RTI training.

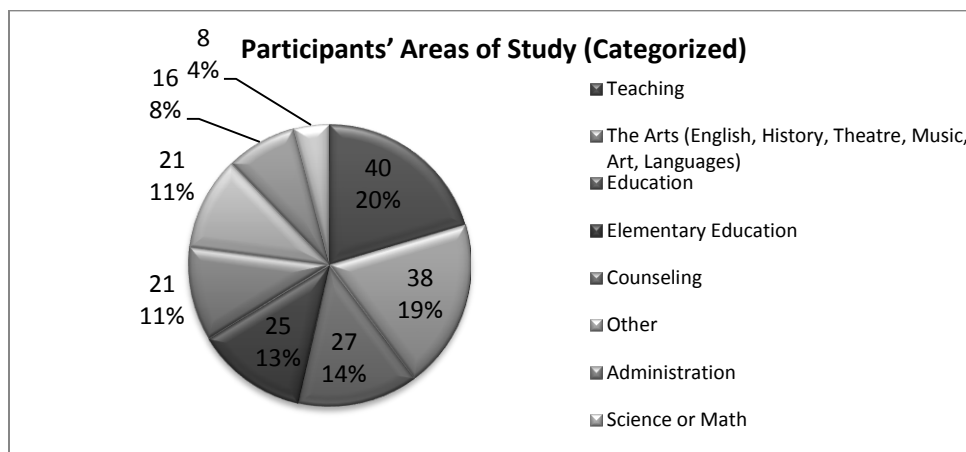


*Figure 21.* Awareness of RTI by career effect of no RTI training.

### **Knowledge Score by Demographic Variables**

Questions 5 – 10 were used to calculate the knowledge scores; hence they correlate highly with knowledge score itself. Those relationships are not meaningful. However, I used Questions 1 – 4 to sample demographics (in the case of Questions 1 – 3) and opinion (in the case of Question 4). See Table 2 on page 62 for a review of the questions. Knowledge score by demographic variables shows whether demographics correlated with differences in knowledge score. However, for the purpose of interpretation of these findings quintessentially remember that correlation is not causation (Mickey et al., 2010). Any differences in knowledge score by demographics could indicate that both knowledge score and the demographic(s) are influenced by another variable or set of variables not measured in this study.

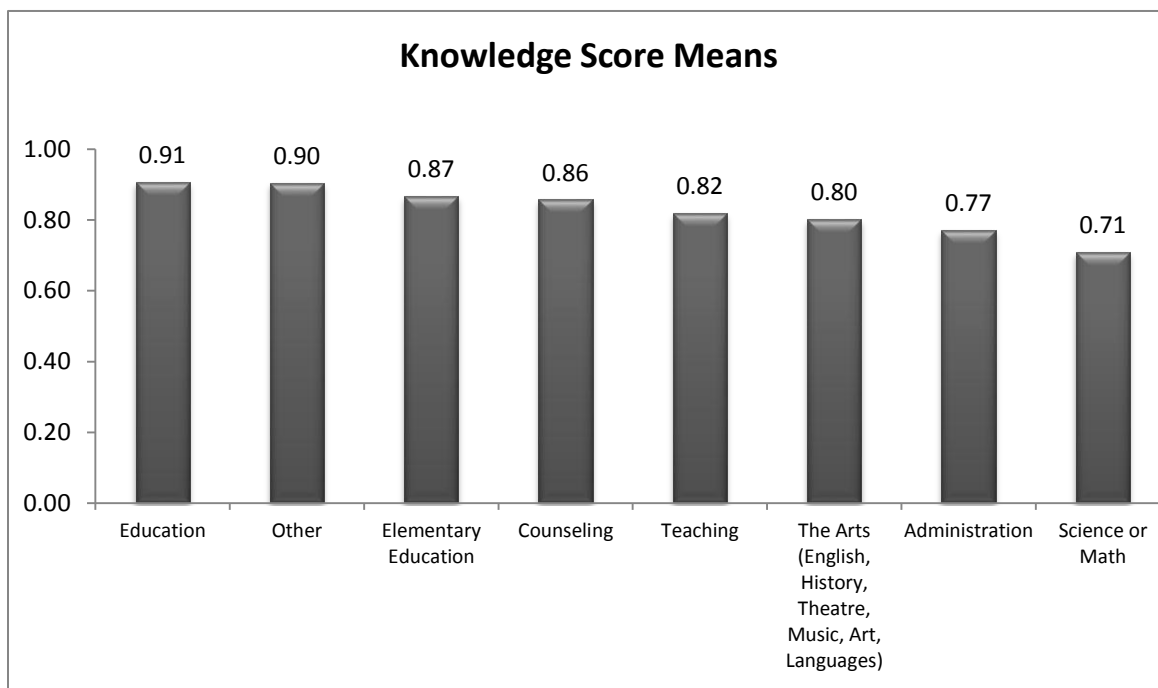
**Knowledge score by area of study.** Too many categories make any table or chart only marginally useful as each category would contain only a few participants. In order to solve this problem, I collapsed categories together as illustrated in Figure 22.



*Figure 22.* Pie chart of areas of study collapsed into broad categories arranged largest to smallest clockwise. Note that all participants were studying education in some form; these categories highlight participants' other specializations (if any).

All participants were studying education in some form or they would not have had exposure to the online survey. However, many were also studying in other areas or were specializing in specific areas of education, such as administration, early education, or counseling. The category "other" included areas of study pursued by fewer than three participants, such as special education, reading, and early childhood education. The areas of study were thereby collapsed into eight categories: (a) education, (b) other, (c) education, (d) elementary education, (e) other, (f) counseling, (g) administration, and (h) science or math. Knowledge score by areas of academic focus are in Figure 23. Those focusing solely on education scored highest and those focusing on science and math

scored lowest. Only the differences in Figure 23 were statistically significant.



*Figure 23.* Mean knowledge scores by participants' academic focus categories.

According to the findings in Figure 23, those whose sole focus was education scored slightly, though significantly, higher than those who were studying teaching, the arts, or science and math. Students of teaching, the arts, and science or math scored higher than those in the “other” category, but since this category contained members with diverse areas of study, these findings have no practical meaning.

**Knowledge score by academic level.** Since the sample contained only one freshman and three sophomores, I re-binned the academic level variable to have these categories: (a) freshman, sophomore, or junior ( $n = 25$ ); (b) senior ( $n = 54$ ); (c) graduate student ( $n = 93$ ); and (d) graduated or doctoral student ( $n = 22$ ). See Figure 24.

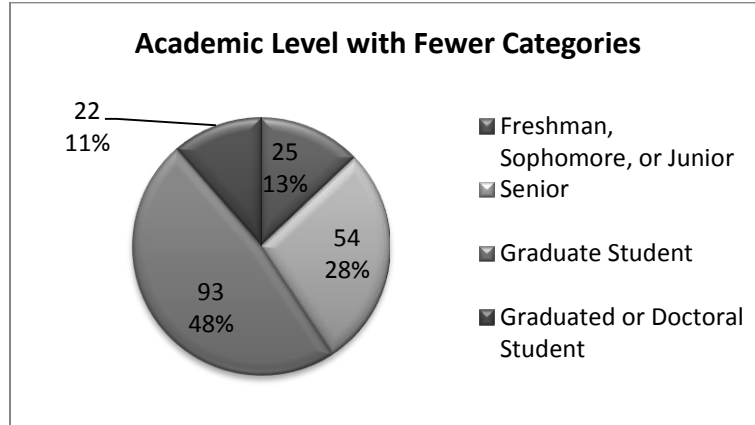


Figure 24. Pie chart of number of participants at each academic level.

Figure 25 is a bar chart of knowledge scores by academic level. Somewhat counter-intuitively, the younger undergraduate students (freshmen, sophomores, and juniors) scored highest at 87%. However, the differences between scores are likely to be due to chance.

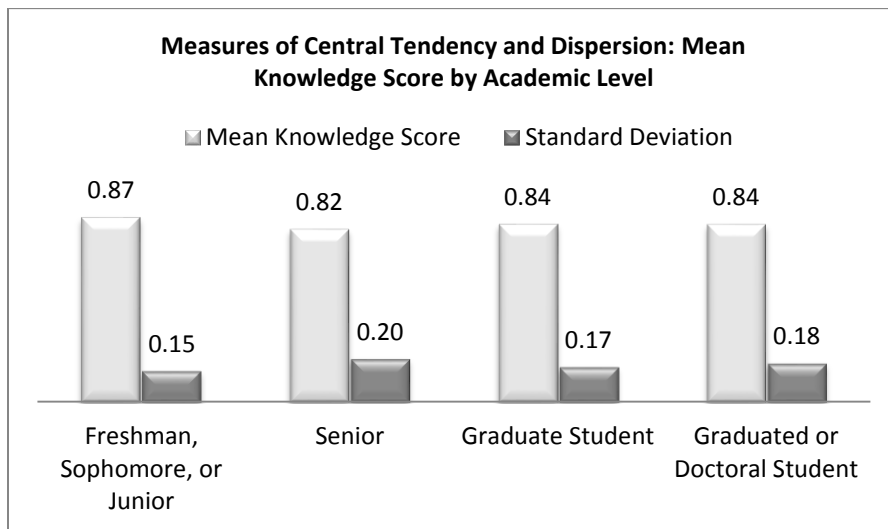


Figure 25. Bar chart of measures of central tendency (mean) and dispersion (standard deviation) for knowledge score grouped by academic level.

**Knowledge score by awareness of RTI through coursework.** Awareness of RTI through coursework was a Likert-style variable with three values. Figure 26 shows

that participants who were aware of RTI through their coursework scored 7% higher on the knowledge questions than those who were not. Figure 27 shows dispersion.

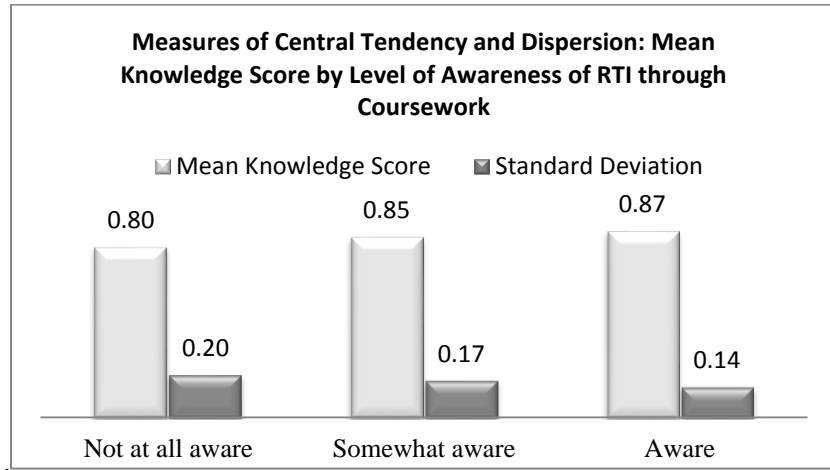


Figure 26. Bar chart of measures of central tendency (mean) and dispersion (standard deviation) for knowledge score grouped level of awareness of RTI through coursework at SSU.

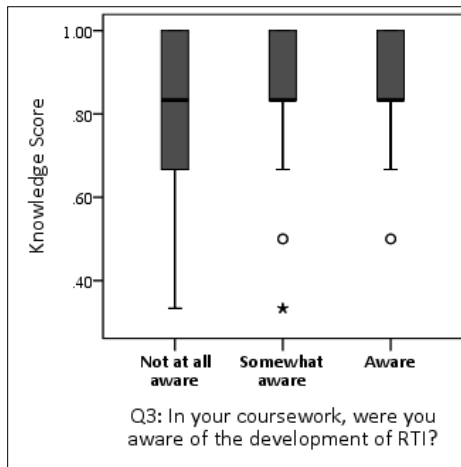


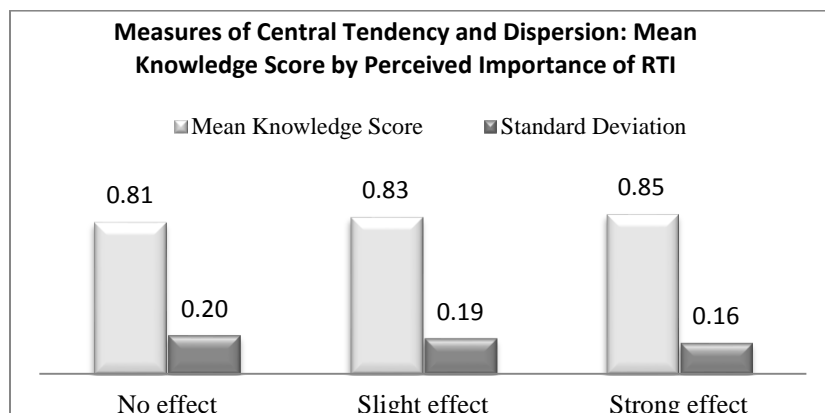
Figure 27. Boxplots of scores by level of awareness of RTI. Those who were not aware had scores that were comparatively more spread out.

**Knowledge score by perceived importance of RTI.** Participants had three choices in answer to the question, “If your coursework did not cover RTI, what impact, if



any, do you think this will have on you as a teacher/administrator?" See Figure 28.

None of the categories was significantly different from any of the others.



*Figure 28.* Bar chart of measures of central tendency (mean) and dispersion (standard deviation) for knowledge score grouped by perceived importance of RTI.

**Summary of knowledge score by demographics.** In general, participants did well with the knowledge questions and scored high on the six questions that comprised the knowledge score subscale. Observed differences were (a) Question 4 correlated with Questions 3 and 7, but 3 and 7 did not correlate with each other; (b) education majors did better than those who majored in teaching, the arts, or the sciences; and (c) those who were aware of RTI through their coursework did significantly better than those who were not but not significantly better than those who had only some awareness of RTI.

### Qualitative Results

Figure 29 is a tag cloud of frequently used meaningful words from the instructor interviews.

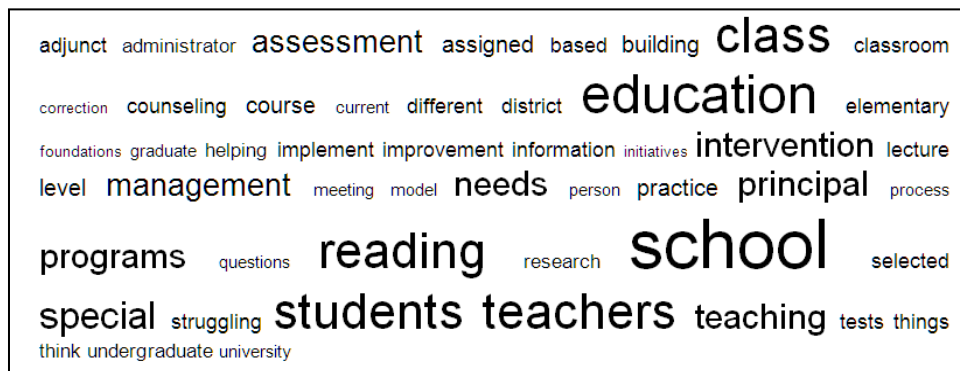


Figure 29. NVivo™ tag cloud based on all instructor interviews.

The accuracy for the word count analysis, upon which the tag cloud in Figure 29 was based on a single word, might be used to represent words with similar meanings. For instance, the word *school* represents *education*, *schools*, *train*, *trained*, *training*, and itself. The words, sorted by weighted percentage, are in Table 15. Weighted percentage is the percentage of times any of the words represented by the main word were used. The main word (in this case, *school*) carries not only its own “weight” in the data set, but for the sake of analysis, the weights of the other words it represents (*education*, *schools*, *train*, *trained*, and *training*). The fact that *school* has a weighted percentage of 2.77% means that the sum of the group of words represented by *school* comprised 2.77% of the total word count (all words spoken by all participants). Note that the two most frequently used words, *school* and *education*, represent words with similar meanings, hence similar members in their groups. Not surprisingly, words related to the activity of teaching, training, or educating comprised 4.41% of the total word count; however, it was a vague concept, related to teachers, students, and students’ students. This vagueness was underscored by the fact that *teachers* was weighted at 1.51% and *students* at nearly the same, 1.60%. In this study, students and teachers were often the same people. Other key

words related to RTI that interviewees discussed frequently were *assessment* (13th), *tiers* (15th), and *research* (37th).

Conspicuous by its absence in the word list is the acronym *RTI* in any form. *Response* is also missing, but *intervention* was the ninth most frequently mentioned concept.

The style and tone of most interviews was formal, impersonal, objective, bureaucratic, and full of jargon. The possibility that the subject made some participants feel defensive is probable. The word list in Table 15 has many words like *curriculum*, *programs*, *management*, and *assessment*. In these interviews, humanizing words such as *children* or *kids* were rare. My sense was that several of the thirteen participants did not feel comfortable and they either said as little as possible or they expressed themselves in bureaucratic jargon to obfuscate the fact that they were not familiar with RTI or simply did not favor the method. Interviewee 9, who confessed to almost no exposure to RTI, was a contrast, saying, “It is the classroom teacher’s job to teach all the kiddos.” Interviewee 13 said that RTI was a system of phraseology rather than a new concept. The only new feature of RTI, he implied, was how it was being expressed. His comments implied that RTI was just a new way of describing an old job—that of a teacher doing a good job. Interviewee 8 said that the use of RTI, though perhaps good for students, “poses an interesting threat on the job.” He went on to say that nobody was “in a hurry to dismiss all the psych examiners,” but that implementing RTI might put teachers in the place of people whose job it has been to thoroughly understand and diagnose learning difficulties.

Before arriving at any conclusions, I (a) read and re-read each interview by interviewee and by question, (b) examined word choice similarity among the instructors' interviews, (c) examined similarities in word choices in all interview questions, and (d) examined word choice by attributes such as age and experience.

**Instructor Attributes.** Short answers to interview questions became attributes, such as years of experience and whether or not the interviewee worked in the public school system at the time of the interview. For a full table of attributes, see Table 5.

Table 5

*Instructor Case Summaries*

ID	Class Choice?	Number of SSU classes	Years Teaching at SSU	Working in a public school?	Job in Public School	Years as a Principal	Teaching Years	Admin Years	Practical Experience with RTI?	RTI Concept Score
I1	Assigned	2	3	No	.	16	20	.	Not exactly	1
I2	Both	2	5	Yes	Administrator	.	.	.	Not exactly	2
I3	Chose	5	7	Yes	Substitute	.	10	20	No	0
I4	Class was available	2	12	No	.	4	17	15	Yes	0
I5	Chose	2	5	No	.	.	3	.	Yes	2
I6	Chose	2	3	Yes	Administrator	5	8	18	No	1
I7	Both	1	9	Yes	Administrator	.	.	.	Yes	5
I8	Both	4	3	No	.	.	.	.	No	1
I9	Chose	4	13	Yes	El. Ed. Principal	.	.	.	No	0
I10	Assigned	1	3	Yes	El. Ed. Guidance	.	.	.	No	0
I11	Both	4	5	No	Administrator	40	.	3	No	4
I12	Assigned	2	14	No	.	15	17	.	No	0
I13	Chose	2	7	No	.	.	.	.	No	0

A majority of respondents had no practical experience with RTI. Only three respondents had such experience, while two gave non-committal responses. However, there seems to be no correlation between a respondent's experience with RTI and a respondent's RTI Concept Score—note that I3, who had no practical experience with RTI, had the highest Concept Score of 5, while I7, who had practical experience with RTI, had the highest Concept Score of 5, while I7, who had practical experience with RTI, had the second-highest Concept Score of 4. And I5, who also had practical experience with RTI, had a RTI Concept Score of zero (0).

### **Summaries of Faculty Interviews**

**Respondent I1.** This educator has a strong administrative background (16 years) as well as a strong teaching background (20 years), has been full time at the university for eight years. This background made I1 “feel I have as much experience with intervention and finding the right intervention.”

**Respondent I2.** While I2 had at least some familiarity with RTI, the respondent had no actual experience with RTI as a formal part either of curriculum or as an active process; surprisingly, knowledge of RTI generated by students. Instead, RTI was a passive component.

**Respondent I3.** This was I3's seventh year at the university as a full time faculty member, 32 years' experience in elementary education, and currently a substitute teacher. I3 had the most formal training in RTI and appeared to be the most active in both tracking emerging trends and data, and developing direct application of the new information. Among the participating faculty members I3 also had the highest RTI Concept Score (see Table 7).

**Respondent I4.** This respondent spent 13 years in central office, two years as a curriculum coordinator, four years as a principal and 17 years in elementary education, (including early childhood education). I4 has five years' experience as an adjunct professor at SSU. While aware of the precepts of RTI on a theoretical level, this educator had no practical experience with RTI on a classroom level. I4 kept an awareness of RTI's current state, but does not seem to be making great direct use of it.

**Respondent I5.** This educator had no formal training or experience with RTI, and thus had no experience with its application; spent about three years teaching at the middle school level and has worked full time at SSU for five years.

**Respondent I6.** Because of this respondent's role in personnel selection (18 years), RTI is a foundational aspect of the education experience. While this respondent makes sure that teachers are well trained in RTI, and that RTI is applied in the classroom, implementation of formal tracking of RTI learning has not yet been effected. In addition, despite I6's attendance of RTI training, I6's RTI Concept Score of zero (0) showed little use of RTI terminology in the interview (Table 7).

**Respondent I7.** This respondent is active in developing and implementing RTI as it is introduced to the school. Although, this I7 did not state the total number of years as an educator, has extensive experience as a teacher at the elementary level, middle school assistant principal, and an administrator in central office. In integrating RTI into the school, this respondent is taking a stricter data-and-analysis approach to both practicing RTI and assessing its effectiveness to adapt it as needed in light of future findings and practical results. I7 produced the second-highest RTI Concept Score (Table 7).

**Respondent I8.** While teaching RTI to educators, I8 has no practical experience with RTI in the classroom setting. Interestingly, this respondent pointed out that some in the education field (psychological examiners) are viewing RTI as a threat to their continued employment by the schools as RTI is seen by some as taking over their role in assessing student aptitude or disability.

**Respondent I9.** This respondent is well aware of the precepts of RTI despite what the respondent characterized as “intermittent training” in RTI. The respondent also perceived the potential for RTI to allow teachers to tailor instruction to individual students based on aptitude, need, and ability. However, I9’s district has not made RTI “a priority at this time, but we believe it’s coming from the state.” I9 spent an undisclosed number of years as an elementary school principal and 9 years as an adjunct at the university.

**Respondent I10.** I10, while aware of RTI and having had at least some training in it, had not had any practical experience with it. This respondent has worked in a school setting as an elementary school guidance counselor and in the third year as an adjunct with the university. Implementation in this respondent’s school has apparently been halting at best, as it is not seen as “a major focus.” Despite this, I10 had an RTI Concept Score of 2 out of 5 possible (Figure 34).

**Respondent I11.** I11 worked 40 years as a principal and director in the school system. This educator had no training in RTI and no experience with it. Unsurprisingly, I11 had a RTI Concept score of zero (0) and was unable to give meaningful responses to most questions.

**Respondent I12.** This respondent had training, but no practical experience with RTI. The respondent noted that RTI's practical application dictated by the realities of the classroom and the variations in student abilities. I12 spent 17 years in the public school setting, primarily high school and was a principal, an assistant principal, an associate principal and currently a full time instructor at SSU (14 years).

**Respondent I13.** Has no experience in the public school setting; six years as an adjunct and in the second year as a full time instructor. Because of this respondent's position in the school, direct experience with RTI has been limited. However, the respondent was well aware of RTI's elements and is looking forward to its implementation.

### **Summaries of Qualitative Answers**

**Question 6.** What were your current or past experiences with RTI?

Respondents generally answered this question by pointing out their own training in RTI (attended RTI training workshops, required staff development, researching interventions, reading the current literature, referencing web sites, webinars, etc.) rather than referencing their own direct experience with it.

**Question 7.** Do you incorporate RTI into courses you teach for SSU? Why or why not? To what degree is it being taught? A slight majority (seven) of the instructors answered this question in the affirmative (I1, I3, I6, I7, I8, I9, and I12), with several respondents citing specific ways RTI had been incorporated. No respondent stated why RTI had not been incorporated in the course taught for the university; although respondent's alluded to not teaching the principal preparation courses or it not fitting into their curriculum coursework. Another respondent used guest speakers to discuss RTI



programming; I can only assume this respondent was not comfortable with their level of knowledge of the concept.

**Question 8.** How have your background and perspectives affected the integration of RTI into your course syllabus? Respondents who had active or impending RTI programs noted that RTI meshed well with both their experience as educators and with the overall mission of meeting the needs of students.

**Question 9.** Provide an example of an activity focused on RTI that you use in your class. Answers to this question varied widely, with two respondents pointing to articles on current research, two pointing to student profile building, two pointing to lesson-plan design, and the rest being either vague responses or non-responses.

**Question 10.** Do you assess students' knowledge of RTI? If so, how? Participants responded in various ways to this question, with seven respondents saying they conducted no formal assessment, and five saying they did assess RTI through reflective discussions following a teaching lesson, exam questions, and required sample differentiated lesson plans. I3 said,

It's like a qualitative nature rather than a quantitative nature, based on the way they reflect after teaching the lesson. It helps you to see if they're really using data to drive their next step kind of a deal. So it's not like a paper pencil test of their knowledge. It's their application rather than their knowledge or comprehension. So it is more like their performance that we're evaluating through observation. And that's only in reading.

## Qualitative Analysis: Description of Interviews and Relationships among Candidates

Figure 30 is a tag cloud of the most frequently used meaningful words in the candidate interviews.



Figure 30. NVivo™ tag cloud of the most frequently used words among candidates.

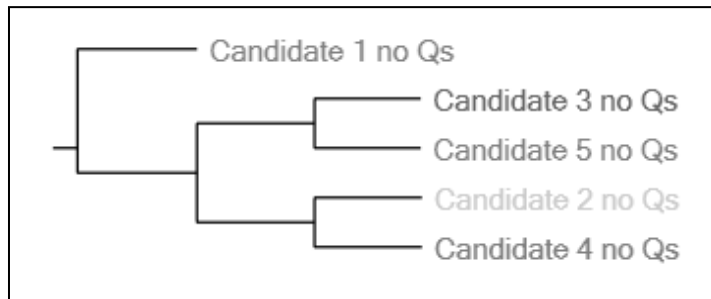
The tag cloud in Figure 30 provides a sense for how the candidates talked during their interviews. The candidates were administrators (principals and other leadership personnel), so not surprising that they would talk most about teachers, school or schools, and students. It is notable that they used the word *support* frequently. Other important terms were *struggle* or *struggling*. Table 15 is a list of the most frequently used word groups, sorted by the total percentage of words that the group represents.

Five candidates participated in the student interviews. Some were already working in public schools as administrators at the time of the interviews. Candidates spoke more than the instructors did (an approximate average of 35 words per instructor question vs. 90 words per candidate question).

As with the instructor interviews, before arriving at any conclusions I (a) read and re-read each interview by candidate and by question, (b) examined word choice similarity among the candidates' interviews, (c) examined similarities in word choices in all interview questions, and (d) examined word choice by attributes.

### Word Choice Similarity among Candidates

Figure 31 contains tree of candidate interviews clustered by word similarity. As with the analysis for word similarity among instructors, any conclusions drawn are presented as exploratory.



*Figure 31.* Cluster analysis of candidate interviews by word similarity.

### Summaries of Education Administrators Interviews

**Candidate 1.** This candidate was the Area Coordinator with a Special School District. C1 reported seeing elements of RTI implemented in the schools with which he was associated, and that implementation was widely varied based. C1 did not recall getting any instruction in RTI, stating in answer to Question 10 (“What other information on RTI would you like to have known from your course work at SSU?”) “Everything”.

**Candidate 2.** C2 was a classroom teacher who sometimes substituted for the building principal. This candidate reported not receiving any materials or, apparently, instruction on RTI, answering Question 3 (“What are the major components of RTI?”) by saying “I’m not sure” and answering Question 4 (“In your course work, what, if any,

specific information did you receive on RTI?") with "I've not had anything issued to me regarding RTI." Nonetheless, C2 was at least vaguely aware of RTI's precepts in the context of collaboration in Professional Learning Communities (PLCs) and thought the lack of formal training in RTI could have a large impact on educational effectiveness for administrators.

**Candidate 3.** This candidate was a teacher who also served as the professional development chair for the high school and in the school district's office of professional development. C3 reported only encountering specific discussion of RTI in a public relations class. Despite the lack of formal course work covering RTI, C3 felt the local-level discussions of RTI are sufficient to deal with its development and implementation. C3 also felt that formal course work in RTI should cover both its potential liability exposure for the schools and provide some PLC-based discussion on real-world effectiveness and results.

**Candidate 4.** Like C2, C4 was a teacher who sometimes filled in for the principal. C4 likewise could not recall receiving any structured course work in RTI. This candidate could recall only one class mentioning RTI during a two-year Master's program, and wanted more depth to RTI presentation.

**Candidate 5.** Like C3, C5 was a physical education teacher. In addition, like the other candidates, C5 could not recall any formal course work on RTI. C5 did remember papers presented on the topic, but "not actual professor teaching." C5 saw the lack of formal instruction as perhaps limiting an administrator's potential effectiveness.

### **Interviews by Question**

Following are summaries of interviews by question.

**Question 1.** Candidates responded with their position or job title within their respective schools or districts. See Table 6.

Table 6

*Education Administrator Q1*

ID	Position or Job Title
C1	Area Coordinator.
C2	Classroom Teacher.
C3	Physical Education/Health Teacher. High school professional development chair. District professional development coordinator.
C4	Elementary physical education teacher.
C5	Fourth grade teacher. Teacher in charge.

**Question 2.** All respondents answered this question in the affirmative to some degree. Three (C1, C2, and C5) noted that use of RTI is implemented in a coordinated or structured way in their schools.

**Question 3.** Candidate responses varied, with some (C1 and C5) noting the data collection aspects of RTI. None seemed very certain as what, exactly, the major components of RTI are.

**Question 4.** None of the candidates was able to recall or describe any formal instruction in RTI. Some recalled discussion of RTI or its components in other contexts or classes.

**Question 5.** Four of the five candidates answered this question saying they thought the lack of instruction or knowledge about RTI would have a large negative impact on their abilities as administrators. One (C3) apparently interpreted the question

slightly differently, saying that the lack of formal instruction would have no impact “because we hear so much within our school building and understand the importance.”

**Question 6.** Answers to this question varied. If any consensus could emerge, it was that administrators need to know, or be taught, what RTI components and strategies are most effective. C3 provided an outlier answer, responding administrators need to know the potential liability exposure that RTI could represent.

**Question 7.** Candidates’ answers to this question ran the entire range from having RTI come up in “most of my classes because I’m looking at instructional leadership” (C2) to “I do recall vaguely and not sure what class” (C5).

**Question 8.** None of the candidates gave the same or even similar answers to this question. No general consensus seemed to emerge.

**Candidate 1.** I think that my teachers always want more specific research based interventions and typically those are in the area of reading, writing and math. Those are the basic areas. I think writing is one of the ones that are most difficult for the teacher because of getting involved with so many different processes to be able to write. They juggle with that and want more of that, they want resources, they want support like from our effective practice specialist, that’s basically their job making sure the teachers are getting what they need and the support that they need.

**Candidate 2.** Because I have a background in professional learning communities, I like collaboration, I think teachers, you know we go into our own classrooms; we shut everyone else out, except the students. We don’t talk about nothing, we don’t discuss or find out what’s working for them and may work for me or working for me I could share with them. We don’t have enough of those conversations so that we can all get feedback

from each other where we can share our teaching practices or even ideas what works. Again, it goes back to PLC background, but I like teacher to teacher opportunities that will allow teachers to get together to collaborate, share ideas, monitor student progress, talk about the work, exchange just a whole host of ideas about teacher to teacher relationships, getting teachers involved in teams, teamwork, team effort. Again, it goes back to collaboration, but I think, that is what helps the struggling teacher or helps that teacher to become stronger is having that support from another teacher.

**Candidate 3.** (a) Well, uhm, knowing the strategies that have been successful, like you know best practices as well as intervention strategies that have worked in other school districts and maybe reading strategies that could help some kids in our class read better, I think there are important things to do in your professional development for sure. (b) I would say reading strategies, also assessment type questions I think helps those students as well because I think they need to be familiar with the kind of test questions. Not teaching to the test, but really acknowledging that there's you know like ACT questions, there are multiple choice, there are skills you can have to make yourself successful, so understanding that as well. We're finding out is it something that's going on at home, or is it because they're coming late, they're not eating right, there's something else could be going on other than they're just a struggling learner.

**Candidate 4.** I would require culturally responsive teaching. I would require reading the book, the Under-Resourced Learner by Rita Pierson, I also would go to the responsive classroom training, classroom management, because that all goes hand in hand with the struggling learner, because you can't help kids if you don't have the classroom management down.....Something on DOK levels, differentiated instruction.

**Candidate 5.** Workshops where teachers, specifically grade level teachers can congregate together and formulate ideas together about what they would do to help improve student performance and how they would go about collecting data for further student progress.

**Question 9.** Answers varied widely, with two candidates (C3 and C4) reporting positive field experiences with RTI.

**Question 10.** No clear consensus found in answer to this question. One candidate (C2) did not answer it; the remaining four had widely disparate responses.

**Candidate 1.** Everything.

**Candidate 2.** No response.

**Candidate 3.** I guess the whole liability thing. What kinds of things have come out of lawsuits that relate to RtI, I'd be really interested in that. And there's gotta be some people in my classes that have RtI going on like full blast, I'd like to know what it's like for them, do they have PLC's with their RtI, how is that working for them and what kinds of strategies are successful.

**Candidate 4.** More in-depth. 2 years for a master's I can only remember one class, more in-depth. New ideas to take back to the classroom.

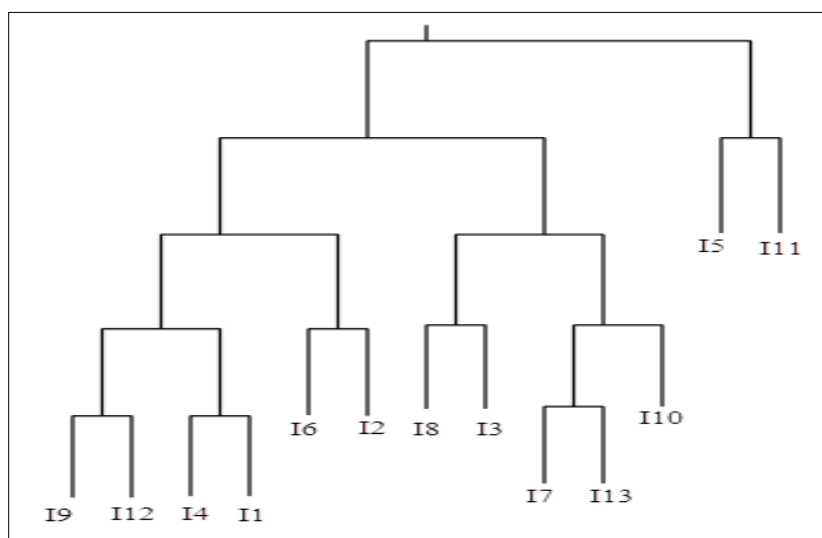
**Candidate 5.** How to involve it outside of the classroom setting and How to implement it by just not the classroom teachers, but also your specialist, such as your art, music, how can they play a better role in using RTI and that was one of the big issues that my school didn't really include us effectively, I would say. We were included, of course, but not effectively. Now we use it in different ways, it's not even RTI, well, it's RTI, but



we use it in different ways it has different names, it's being implemented in all these different areas, different programs, whether it's PBIS or stuff like that.

### **Word Choice Similarity among Faculty Interviewees**

Figure 32 contains tree of instructor interviews clustered by word similarity. Associations among interviews were calculated by comparing how similar the instructors' word choices were. One might assume that similarities in word choices indicate similarities in thoughts. Debating this assumption is outside the scope of this dissertation. Therefore, findings are presented as exploratory. My own perusal and understanding of the instructor interviews supports the findings.



*Figure 32.* Instructor interviews clustered by word similarity. Interviews on the same branch (such as I7 and I13) are more similar to each other than they are to interviews on other branches.

In general, those with the most experience and exposure to RTI seemed to be the respondents who saw RTI's purpose and potential most clearly. Respondent I1, for example, had extensive experience in education at all levels, and seemed to view RTI's

precepts as a natural part of teaching. In answer to Question 6, I4 also pointed to long-term practical experience, as did I12. I1 said, “I was a teacher for 20 years and an elementary principal for 16 years and I’ve been at university eight years.” Similarly, I4 pointed to 24 years of experience and noted “since 1998, things have changed”. Moreover, I1, I9, and I12 all stated that they were working to give teachers practical instruction on implementing and using RTI in response to Question 7. Response to Intervention is aimed at “helping all children and addressing the needs of all children,” according to I1. This was echoed by I9, who said “it is the classroom teacher’s job to teach all the kiddos,” and by I12 who pointed out that RTI lets teachers “incorporate different areas of how you work with students who are struggling, including those who are excelling.”

By way of contrast, those instructors with the least exposure to RTI have not brought it into their curriculum or seen its benefits. For example, I1 in response to Question 9 was able to offer practical examples of RTI implementation, noting that RTI can let a teacher “learn how to modify in any subject that that child might need modification, such as spelling or reading.”

Instructors with little or no formal RTI training seemed less likely to see RTI’s benefits or to provide meaningful answers to the questions. Respondents I2, I5, and I11, for example, all stated they had no experience or formal training in RTI (Question 6). In responding to subsequent questions, all three of these instructors stated they did not incorporate RTI into their courses (Question 7). Asked how their background and perspectives affected integrating RTI into their course syllabus (Question 8), only I2 was able to give any kind of answer. Similarly, all three provided no or nil responses to

Question 9 and Question 10. These similarities in responses among those best versed in RTI seem to indicate that familiarity with RTI’s precepts leads to similar conclusions about RTI’s practical benefits.

In general, the interviews varied from each other. Thirteen people answered the same set of questions—the first five being “attribute” questions and the remaining five being about experience and teaching of RTI. The fact that the highest association value for I7 and I13 for the second set of questions indicates that instructors at SSU, as a group, were not teaching RTI coherently.

### **Word Patterns: Key RTI Concepts as Discussed by Instructors**

As a group instructors were focused more on levels (or tiers) and data than on the other major ideas upon which the RTI model depends. See Appendix F: Word Frequency Lists. *Levels* or *tiers* were mentioned the most, nine times, but only by four instructors. *Assess* appeared only three times, but in I4’s interview, it had nothing to do with RTI. I4 mentioned a need to maintain “awareness of what’s out there to assess what the reading programs are”: assessing programs, not students. Hence, the reference is not to an RTI concept. Only three of the 13 instructors mentioned research.

Table 7

#### *Instructors’ Key RTI Concepts*

RTI Concept	References	Instructors	Instructor IDs	Spread Score
Data	8	4	2, 3, 7, 10	12
Assess	2	2	7, 13	4
Research	5	3	3, 4, 7	8
Intervene	6	2	1, 3	8

Level or Tier	9	4	3, 7, 10, 13	13
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The “spread score” in Table 7 is how frequently the concept was mentioned added to the number of instructors who indicated it to ascertain which concept was best represented by the instructors’ words. The best-represented concept was *levels or tiers*, and the worst, *assessment*. Figure 33 is a graph of spread scores.

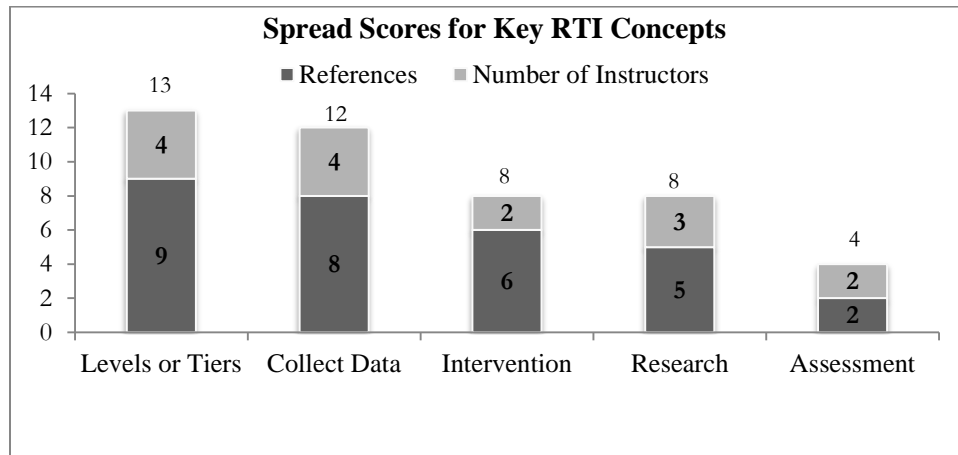


Figure 33. Spread scores for key RTI concepts.

I also scored instructors by how frequently they mentioned the five key concepts. See Figure 34. I3 seemed most informed about RTI, naming all five key concepts. I5, I6, I8, I9, I11, and I12 mentioned none of RTI’s key concepts.

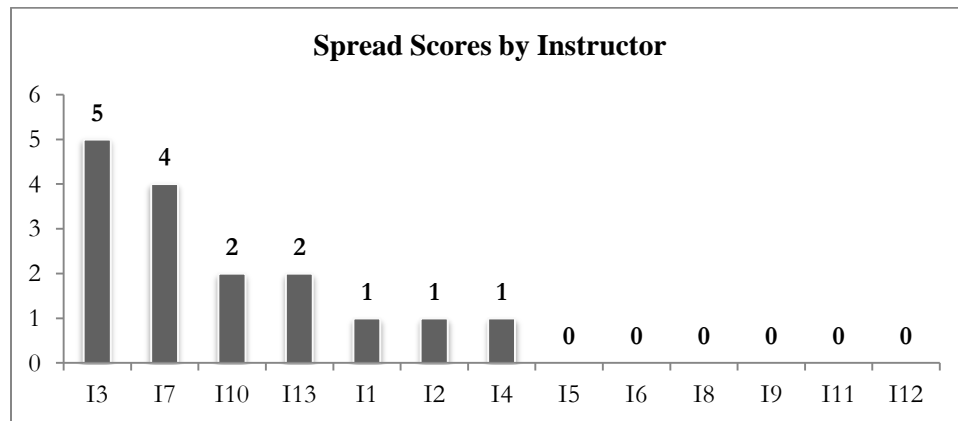


Figure 34. Spread scores for key RTI concepts by instructor.

**Themes**

Following are the major themes that resulted from a thorough reading and understanding of the interviews and the word frequency analysis.

1. RTI implementation cannot work without providing teachers with adequate support and opportunities to collaborate.
2. RTI is for helping individual students rather than a way to create an excellent research-based curriculum for all learners. Interventions are the focus of RTI.
3. Training in RTI for instructors was haphazard—hence training for teacher and administrative candidates was the same.

**Summary**

In Chapter 4, the data analysis unfolded from quantitative and qualitative data. Descriptive data showed who the participants were, how well they understood RTI, and how variables related to each other to give a detailed picture of the quantitative part of the data set. Knowledge of RTI was not related to classroom experience of RTI at SSU. Qualitative analysis showed a similar trend, that student teachers and administrators were learning about RTI, but apart from education majors, not through their classwork. Based on word frequency lists, what they were learning was somewhat lop-sided: teachers were focused on data and dividing students into levels or groups, but less focused on designing excellent classroom instruction or finding research-based solutions. This may have been in part because faculties at SSU had similar focus, except for those who had practical experience in RTI. According to these findings, students' advanced in knowledge of RTI through the natural course of discussions more frequently initiated by them than it was by instructors in course planning.

This research study explored an area of teacher preparation in RTI. A review of the literature discussed the history of RTI. Chapter 3 revealed the purpose, design, and methodology used for the study and Chapter 4 presented the findings. I will further discuss the findings and suggest recommendations in Chapter 5.

## **Chapter 5: Discussion, Recommendations, and Reflection**

The purpose of this research study was to examine how the SSU School of Education instructs teacher candidates and education administrators in RTI. Both the state of Missouri and Illinois required all school districts to develop RTI plans for statewide implementation, “yet many administrators and teachers are uncertain on how to get started” (Chambers, 2008, p. 1). In view of the fact that states mandate school districts execute a RTI policy, this initiates a sense of urgency at the university level to assure teacher candidates are sufficiently prepared for the classroom. The need for all stakeholders, university, and district officials to collaborate on the skills necessary for education preparation has never been greater.

### **Answers to Research Question**

**Research Question 1: How do SSU School of Education Faculty members instruct teacher candidates and educational administrators on Response to Intervention?** Review of the data gathered from the interviews of both the instructors and the candidates, it is clear that the teaching of RTI has not yet reached a point where it is a formal part of the curricula of most of the disciplines. Only those candidates who were in the Education specialty had any evident formal training in RTI, as revealed through both interview responses with the candidates and the online study results (Table 5). Most other candidate responses indicated little or no discussion of RTI as a part of their coursework. Candidate C4 responded to Question 4 (“In you course work, what, if any, specific information did you receive on RTI?”) by saying, in part, “You know, I don’t really remember anything specifically about RTI . . .” C4 went on to note that RTI

was only incidentally incorporated in a class on curriculum. Candidate C2 was more explicit responding to Question 4: “I’ve not had anything issued to me regarding [RTI].”

Instructor interviews made it clear that they typically had little or no practical experience with RTI (see Table 2), and themselves lacked a solid foundation on the subject. As a result, the teaching of RTI is poor, with most candidates gleaning their information from peers and colleagues. Asked explicitly if they included RTI in their curricula, instructors responses varied from that of I3 who specifically used RTI elements as part of the course work to I1, who felt that RTI was in the curricula for history and philosophy course because “in some of the chapters it’s mentioned: helping children and addressing the needs of all children.” Of the 13 instructor responses to Question 7, (“Do you incorporate RTI into the course you teach for SSU? Why or why not? To what degree is it being taught?”), four said they did not incorporate RTI, two said the general concept was introduced, and the remainder said they did incorporate at least some elements of RTI to varying degrees. The survey responses and interview questions indicated only those candidates who were in the Education specialty had any evident formal training in RTI. Most candidate responses disclosed little to no recall of RTI instruction.

**Research Question 2: How do faculty teach RTI differently at different levels (undergraduate, MAT, administration?)** Based on candidate interviews and analysis of the online survey, it appears that instructors do not vary their instruction based on student academic level. Analysis of the data from the online study in particular shows no significant difference in knowledge scores based on academic level (Figure 29). This correlates well with the evident lack of a formal structure or program for introducing RTI



in the coursework (see candidate responses showing little or no specific recall of RTI teachings). Seven of the respondents vaguely noted activities or assignments focused on RTI in instruction. None of the groups significantly differed from any other group. RTI awareness did not increase with advanced education; knowledge of RTI distribution functions in the three groups is the same.

**Research Question 3: How does faculty perceive that RTI has changed the role of the general education teacher and administrator?** Upon reviewing interview responses in the aggregate, the consensus that seems to emerge is that general education teachers and administrators have been using at least some of the principles of RTI all along, and that RTI is providing a more structured and formal approach. Responding to Question 6, I1, for example, notes that over the course of 20 years teaching experience and 16 years as a principal, “I have as much experience with intervention and finding the right intervention for a child.” Respondent I4 expressed a similar sentiment in responding to Question 6. More specific breakdown answers provided to Question 5 (“In your course[s], how often were there discussions about improving the achievement of the struggling learner?”), six respondents noted in various ways that RTI is focusing teacher-pupil interaction on constant assessment of each student’s achievement level and reformulation as needed of the teaching approach for each student (I4, I5, I7, I9, I10, and I13).

Further, candidate responses almost universally mentioned that RTI precepts were already being discussed and/or implemented at their schools. On the administrator side, four candidates responded to Question 5 (“If your coursework did not cover RTI, what impact, if any, do you think this will have on the role of an educational administrator?”)

that RTI will have a large impact on administration, and that administrators need to know RTI in order to be effective (C1, C2, C4, and C5). The responses varied. Although aware of RTI, not all faculties gave the impression regarding the seriousness of the issue. Faculty reported they lacked formal training in RTI themselves; therefore I conclude they could not anticipate the changing role of the general education teacher and administrator as it relates to RTI.

### **Curriculum**

At the university level, instructor's lack of formal training in RTI poses a serious impediment to bringing RTI into the curricula. The data reveals instructors' RTI Concept scores were almost uniformly low (Figure 16), with only two of the 13 instructors scoring above 3 (out of a possible 5), and nearly half producing scores of zero (0). Obviously, it would be difficult for the instructors to teach RTI if they do not know the subject or understand how it relates to modern teaching practices. The AACTE and the Partnership for the 21st Century Skills "believe new teacher candidates must be equipped with 21st century knowledge and skills and learn how to integrate them into their classroom practice for our nation to realize its goal for successfully meeting the challenges of this century" (Greenhill & Petroff, 2010, p. 3).

In examining the candidate interviews, few could recall receiving any instruction in RTI. Many reported learning about RTI fragmented from colleagues, rather than being given instruction in RTI as a whole. This mirrors the instructors' reported experiences of, for the most part, having little or no formal RTI training. The data gathered could have yielded different results had I administered undergraduate and graduate students a pre and post survey to ascertain their knowledge of RTI at the beginning and end of the selected

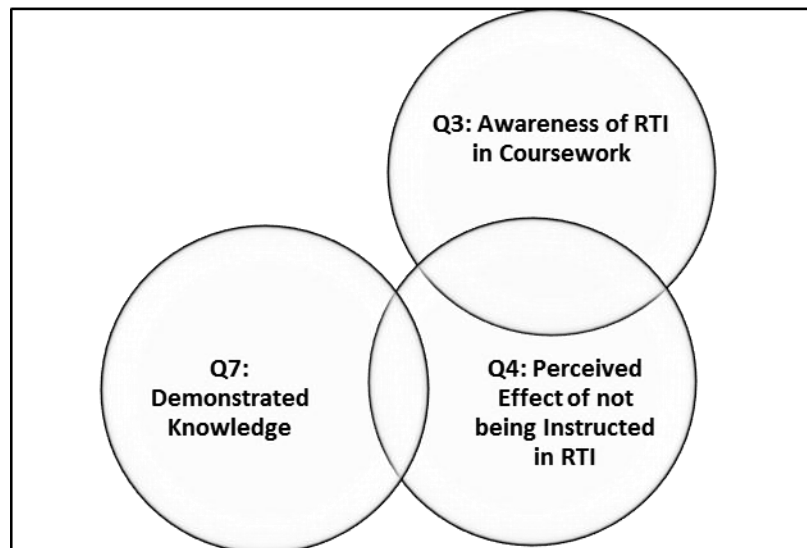
course. Review of the data might reveal the level and frequency of RTI discussions throughout the semester.

All of the education candidates interviewed stated their schools are currently using RTI. Some of the schools were just beginning RTI while others are developing tiered interventions and entering their second or third year of the process. However, only 70 participants said that their coursework had not made them aware of RTI, but 177 participants answered this question. Therefore, I assumed that participants whose coursework covered RTI as well as those whose coursework did not cover RTI may have answered the question. The question also contained the words "...if any," which could be interpreted to mean that those who thought RTI would have no impact on them as teachers or administrators could leave the question blank. For analysis purposes, I assumed that those with and without RTI training in their courses answered the question. I treated the missing values as unusable data, not as a category such as "No effects expected" or "I had training in RTI." The missing answers could have been missing for either of those reasons or, as with other questions, for another, unknown reason.

### **Perceived Value of RTI**

Learning about RTI from class correlates well with perceived value of RTI. Candidates who were aware of RTI through their coursework, or who had significant exposure to RTI outside of SSU tended to express high valuations of RTI; similarly, instructors who had training or outside exposure to RTI tended to see great value in its effectiveness. These two trend points indicate that implementing a formal, structured training program for RTI at SSU could have significant benefits as RTI is adopted statewide in the school system.

The online survey revealed that RTI awareness and education seemed concentrated among education majors. The falling off of RTI knowledge scores among the other disciplines points to RTI not being incorporated as an essential part of the curricula. Respondents who were aware of RTI through their coursework tended to express elevated value for the concept. Furthermore, those who perceived a lack of instruction to have a greater effect on their teaching and leadership performance were less likely to answer Question 7 incorrectly. This fact supports a hypothesis that those who knew more about the concept rated it as more important. However, knowing more (at least about the benchmark value) did not correlate with perceiving RTI to be important. See Figure 35. Note that knowledge, at least for Question 7 regarding the benchmark percentage necessary for a successful core curriculum, had no relationship with awareness of RTI in coursework.



*Figure 35.* Approximate relationship between Q7, a knowledge question, Q3, awareness of RTI through coursework, and Q4, perceived effect of not being aware of RTI through coursework.

**Recommendations for Further Study**

- Administration of a pre- and post-survey to be given at the beginning and end of the selected courses participating in the research study. The information gathered from the results of the surveys could, (a) indicate students' prior knowledge of RTI; (b) reveal how much knowledge was gained throughout the semester; and (c) ascertain whether the post test results were based on faculty instruction or student initiated discussions. The results may have given a more definitive look at the differing levels (undergraduate, MAT, education administrator) of instruction.
- Expanding the student interviewees to include the differing levels to broaden the available information for research analysis.
- Incorporating within the education administrator interview a question regarding the amount of time in their current role in the school setting. This information would allow a researcher to delve more deeply into the candidate's point of view of the subject of RTI.
- Including an option for the student participant to choose "other" to explain their knowledge of or lack of knowledge as a response on the survey.

**University Recommendations**

Based on these findings, SSU might examine present curricula with an eye toward formally incorporating RTI in all disciplines within the school of education. Perhaps using this study as a basis to explore the development of a consistent methodology for assessing (a) the current state of the art in education and administration, (b) how SSU's faculty are being kept informed on emerging trends and technologies in education, (c) how these emerging trends and technologies can best be incorporated into the curriculum

for each discipline, and (d) how well matriculating candidates have been instructed in each.

Faculty and students alike at SSU School of Education focus on data-gathering and to a certain extent, devising interventions; however, they focus less on research or on devising high-quality, research-based classroom instruction. The university instructors should possibly stress researching research-based classroom instruction to further emphasize the need to escalate individual instruction in all disciplines. Thus, building this level of knowledge encourages students to research and implement the targeted strategies to improve student performance.

Perhaps SSU should give an assessment of RTI before hiring adjuncts or full time instructors. Notably, a matter of professional development should occur for instructors to effectively prepare pre-service teacher educators. It may be essential for SSU to develop and implement a formal RTI course for the instructors. This course would cover not just RTI's concepts and uses, but also explore how to most effectively blend RTI into the entirety of each curriculum so that teacher candidates in all disciplines and education administrators are receiving instruction tailored to their field.

One task of school district administrators is developing business and community partnerships. Perhaps SSU should consider partnering with neighboring school districts offering professional development opportunities. This would reinforce the need for collaboration for future teachers and administrators as well as the community.

### **Personal Reflections**

This study evolved from my own surprise that some teachers I have had the pleasure of working with thought they were only to teach the smart students. I wondered

if pre-service teachers realize they are responsible for the education of all students in their classroom. I find it interesting that when a teacher has a struggling student in their class, they automatically think that student does not belong and should be placed in special education. So, I wanted to know if pre-service teachers were instructed in research based interventions to assist struggling learners.

My own education administration program offered a few classes on intervention strategies that were among the elective classes to choose from. As I recall, they addressed many of the leading authors in research; Robert Marzano, David Pink and many others. These authors provided in their books other ways to look at the struggling learners including considering that people are all wired differently. As educators, we have to address the fact that one method or strategy will not work for all.

Educator preparedness and the role of the general education teacher have changed; and so have meeting the needs of the diverse 21st century learner. Many veteran teachers have seen a number of sensational educational movements throughout the years and may be reluctant to try the 'latest invention in education reform'. Nevertheless, education seems to be in more of a crisis now than ever. Still a number of questions arise when I think about the success of the struggling learner. Are their teachers prepared? Do they really believe all students can learn? Have they tried everything? These questions place the focus of educating the struggling learner on the teacher; however, the student has to have the willingness to work together with their teacher and expect to receive a quality education.

I sometimes wonder if students served in disadvantaged low-income schools actually understand the value of their education. Do they realize the sacrifices that were

made for them? Are they remotely aware of the struggles of the past? Do they realize the reality of the necessity of a quality education? I imagine a number of students come to school on a daily basis knowing they have arduous time grasping information presented in the classroom, who probably wish they could go back in time to a place where they experienced academic success. RTI is one solution that can change a student's outlook on their own education. Efforts need to be placed on using research based intervention strategies to help students achieve.

Professional development for teachers is vital to their success in the classroom. Attending one conference or workshop is not enough, there needs to be on-going professional development including follow-up on the specific skills to be mastered. Best practices initiated for coaching and opportunities to observe 'master' teachers. An atmosphere of trust has to be established for effective collaboration among teaching staff. Success yields all stakeholders (teachers, students, administration, parents, community) combined effect to obtain school-wide education improvement.

### **Conclusion**

Educators in this country are faced daily with the challenges of teaching the diverse learner, while institutions of higher education have the challenge of preparing today's teacher and education administrator for the diverse classroom. Teachers who are adequately prepared can increase student achievement and close the achievement gap between mainstream learners and their diverse counterparts who may be struggling. In lieu of a special education referral for a learning disability teacher education instruction in research based strategies such as "RTI allows for early intervention by providing



academic and behavioral supports rather than waiting for a child to fail before offering help” (Klotz & Canter, 2006, p. 1).

I was curious about faculty instruction in RTI, so I designed the study to find out how, at differing levels of instruction, faculty at SSU perceived the changing role of general education teachers and administrators. Surprisingly, there were no significant differences in instruction at the differing levels of coursework. Education is an influential tool that serves a significant role all of our lives. A class-based divergence in education can be seen throughout society despite the fact that the lack of a quality education affects every community, collectively and individually. The burden, desire, and need to offer a free, appropriate public education to every child, regardless of race or socio-economic background, should be endemic to institutions of higher education that prepare pre-service teachers to educate all students. RTI is supported by many states, including Missouri and Illinois, because of its emphasis on high quality classroom instruction and its seamless approach to gathering data and implementing strategies (Illinois State Board of Education, 2012; Missouri Department of Elementary and Secondary Education, 2012).

The findings of this study include a variety of perspectives regarding RTI, from faculty, pre-service teacher candidates, and education administrators (see Chapter 4 for a thorough discussion of findings). Awareness of RTI in coursework correlated positively with the perceived effect of not being instructed in RTI. However, knowing more (at least about the benchmark value) did not correlate with perceiving RTI to be important, as shown in Figure 19.

The overall findings of this study are that both candidates and instructors are poorly informed about a critical emerging facet of education. It seems imperative for SSU to conduct periodic reviews of curricula for content to incorporate the most up to date information in the teacher preparation program. The importance of SSU staying abreast of emerging changes in education is critical to their status of excellence in quality teacher education preparation.

### References

- American Academy of Pediatrics. (2011, November 4). *Healthy Children*. Retrieved November 4, 2011, from <http://www.healthychildren.org/english/ages-stages/preschool/Pages/default.aspx>
- American Association of Colleges for Teacher Education. (2011, June 22). *Transformations in educator preparation: Effectiveness and accountability*. Retrieved from [http://aacte.org/pdf/Publications/Reports\\_Studies/Transformations%20in%20Educator%20Preparation%20-%20Effectiveness%20and%20Accountability%20-%20June%202011.pdf](http://aacte.org/pdf/Publications/Reports_Studies/Transformations%20in%20Educator%20Preparation%20-%20Effectiveness%20and%20Accountability%20-%20June%202011.pdf)
- Assaf, L. C., Garza, R., & Battle, J. (2010). Multicultural teacher education: examining the perceptions, practices, and coherence in one teacher preparation program. *Teacher Education Quarterly*, 115–135.
- Association for Supervision and Curriculum Development. (1997). *ASCD*. In J. L. McBrien, & R. Brandt, Eds. Retrieved January 23, 2012, from <http://www.ascd.org/Publications/Lexicon-of-Learning/D.aspx>
- Barnes, A. C., & Harlacher, J. E. (2008). Clearing the confusion: Response to intervention as a set of principles. *Education and Treatment of Children*, 31(3), 417–431.
- Barringer, M.-D. (2009, April). The science of learning. *Principal Leadership*, 9(8), 36-40.

- Baumel, J. (1998-2012). *Great Schools, Inc.* Helping struggling students who don't qualify for special services. <http://www.greatschools.org/special-education/health/676-helping-students-who-dont-qualify.gs>
- Blanton, L. P., Pugach, M. C., & Florian, L. (2011, April). *Preparing general education teachers to improve outcomes for students with disabilities*. American Association of Colleges for Teacher Education  
[http://aacte.org/pdf/Publications/Reports\\_Studies/AACTE%20NCLD%20Policy%20Brief%20May%202011.pdf](http://aacte.org/pdf/Publications/Reports_Studies/AACTE%20NCLD%20Policy%20Brief%20May%202011.pdf)
- Bradley, R., Danielson, L., & Doolittle, J. (2005, November/December). Response to intervention. *Journal of Learning Disabilities*, 38(6), 485-486.
- Bransford, J., Darling-Hammond, L., & LePage, P. (2005). Introduction. In L. Darling-Hammond, & J. Bransford, Eds. *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do* (pp. 1-39). San Francisco: Jossey-Bass.
- Butler, K. (2008, September 1). Principal preparation programs: Equipping school leaders for new pressures and challenges. *District Administration Magazine*.  
<http://www.districtadministration.com/article/principal-preparation-programs>
- Canter, A., Klotz, M. B., & Cowan, K. (2008, February). Response to intervention: The future for secondary schools. *Principal Leadership*, 8(6), 12-15.
- Capraro, M. M., Capraro, R. M., & Helfeldt, J. (2010). Do differing types of field experiences make a difference in teacher candidates' perceived level of competence? *Teacher Education Quarterly*, 131-154.
- Chambers, C. A. (2008, October). Response to intervention (RTI): What it is and why you need it. *Technology & Learning*, 29(3), 1.

- Chong, S., & Cheah, H. M. (2009). A values, skills and knowledge framework for initial teacher preparation programmes. *Australian Journal of Teacher Education*, 34(3), 1-17. Retrieved from <http://ro.ecu.edu.au/cgi/viewcontent.cgi?article=1353&context=ajte>
- Cochran-Smith, M., & Fries, K. (2005). Researching teacher education in changing times: Politics and paradigms. In M. Cochran-Smith, & K. M. Zeichner (Eds.). *Studying Teacher Education: The Report of the AERA Panel on Research and Teacher Education* (pp. 69–110). Mahwah, New Jersey, U.S.: Lawrence Erlbaum Associates, Inc.
- Coleman, J. S. (1967). *The Concept of the Equality of Educational Opportunity*. U. S. Department of Health, Education, and Welfare. Washington, D.C. United States: Office of Education.
- Cortiella, C. (2011, October 6). Parents' guide to RTI. Retrieved from: [http://www.nclld.org/images/stories/Publications/parentadvocacyguides/parents\\_guide\\_RTI\\_FINAL\\_101111-2.pdf](http://www.nclld.org/images/stories/Publications/parentadvocacyguides/parents_guide_RTI_FINAL_101111-2.pdf)
- Cortiella, C. (2009, October 27). Chapter 2: Response to intervention: A new approach for helping students most at-risk for LD. Retrieved from <http://www.nclld.org/at-school/your-childs-rights/parents-guide-to-idea/chapter-2-response-to-intervention>
- Cortiella, C. (2004). *Making the "No Child Left Behind Act" work for children who struggle to learn: A parent's guide*. San Francisco. National Center for Learning Disabilities and Schwab Learning.

- Delpit, L. (2006). Teachers' voices: Rethinking teacher education for diversity. In E. G. Reeves Ed. *The New Press Education Reader: Leading Educators Speak Out* (pp. 30-52). New York, NY: The New Press.
- Delpit, L. D. (2006). *Other People's Children: Cultural Conflicts in the Classroom*. New York, NY: New York Press.
- Donaldson, W. (2010, December 16). The Essential Components of RTI: Progress Monitoring. Retrieved from <http://www.rti4success.org/webinars/video/924>
- Donovan, M. S., & Cross, C. T. (2002). *Minority Students in Special and Gifted Education*. Washington, D.C.: The National Academies Press.
- Drummond, K., Gandhi, A., & Elledge, A. (2011, April). What is response to intervention? *The Complex Ecology of Response to Intervention* (pp. 1-5). Washington, D.C.: U.S. Office of Special Education and American Institutes for Research. Retrieved December 10, 2010, from <http://www.rti4success.org>
- Duffy, H. (2007). Meeting the Needs of Significantly Struggling Learners in High School: A Look at Approaches to Tiered Intervention. Retrieved from [http://www.betterhighschools.org/docs/NHSC\\_RTIBrief\\_08-02-07.pdf](http://www.betterhighschools.org/docs/NHSC_RTIBrief_08-02-07.pdf)
- Ehren, B. J. (n.d.). *Response to intervention in secondary schools: Is it on your radar screen?* Retrieved March 10, 2009, from <http://www.rtinetwork.org/learn/rti-in-secondary-schools/response-to-intervention-in-secondary-schools>
- Federal Register. (2001, January 8). *U.S. Department of Education*. Retrieved from <http://www2.ed.gov/legislation/FedRegister/finrule/2001-1/010801b.html>
- Floden, R., & Meniketti, M. (2005). Research on the effects of coursework in the arts and sciences and in the foundations of education. In M. Cochran-Smith, & K. M.

- Zeichner Eds. *Studying Teacher Education: The Report of the AERA Panel on Research and Teacher Education* (pp. 261-308). Mahwah, New Jersey, U.S.: Lawrence Erlbaum Associates, Inc.
- Fraenkel, J. R., & Wallen, N. E. (2006). *How to Design and Evaluate Research in Education* (Sixth ed.). Boston, MA: McGraw Hill.
- Fuchs, D., & Fuchs, L. S. (2001). Responsiveness-To-Intervention: A blueprint for practitioners, policymakers, and parents. *Teaching Exceptional Children*, 38(1), 57-61.
- Good, T. L., McCaslin, M., Tsang, H. Y., Zhang, J., Wiley, C. R., Bozack, A. R., & Hester, W. (2006, September/October). How well do 1st-year teachers teach: Does type of preparation make a difference? *Teacher Education*, 57(4), 410-430.  
doi:10.1177 / 0022487106291566
- Goodwin, S. P. (1983). An explication of human resources supervision: A grounded theory study of a public alternative high school. *Doctoral Dissertation for the University of Pittsburgh*. Pittsburgh, PA: University of Pittsburgh.
- Greenhill, V., & Petroff, S. (2010). 21st century knowledge and skills in educator preparation. 1-40. (P21), the American Association of Colleges of Teacher Education and the Partnership for 21st Century Skills;. Retrieved from [http://www.p21.org/storage/documents/aacte\\_p21\\_whitepaper2010.pdf](http://www.p21.org/storage/documents/aacte_p21_whitepaper2010.pdf)
- Hafner, A. L., & Maxie, A. (2006). Looking at answers about reform: Findings from the SB 2042 implementation study. *Issues in Teacher Education*, 15(1), 85-102.  
Retrieved from <http://www.eric.ed.gov/PDFS/EJ796297.pdf>
- Hall, P., & Jensen, T. (2008). Meeting each student's needs. *Principal*, 88.

Hazelkorn, M., Bucholz, J. L., Goodman, J. I., Duffy, M. L., & Brady, M. P. (2011).

Response to intervention: General or special education? Who is responsible? *The Educational Forum*, 75, 17-25. doi:10.1080/00131725.2010.528552

Heppen, J. B., & Therriault, S. B. (2008, July). *National high school center*. Better High Schools. Retrieved from

[http://www.betterhighschools.org/pubs/documents/IssueBrief\\_EarlyWarningSystemsGuide.pdf](http://www.betterhighschools.org/pubs/documents/IssueBrief_EarlyWarningSystemsGuide.pdf)

Hollins, E., & Guzman, M. T. (2005). Research on preparing teachers for diverse populations. In K. M. Zeichner, & M. Cochran-Smith, Eds. *Studying Teacher Education: The Report of the AERA Panel on Research and Teacher Education* (pp. 477-548). Mahwah, New Jersey, U.S.: Lawrence Erlbaum Associates.

Hozella, P. (2007, April). *National Dissemination Center for Children with Disabilities*. Retrieved from <http://nichcy.org/laws/idea/legacy/module6>

Illinois State Board of Education. (2012). Illinois response to intervention. Retrieved from [http://www.isbe.state.il.us/rti\\_plan/default.htm](http://www.isbe.state.il.us/rti_plan/default.htm)

Illinois State Board of Education. (2008). *The Illinois State Response to Intervention (RtI) Plan*. Springfield, IL.

Institute for Education Leadership and Center on Education Policy. (2000).

*Understanding Flexibility in Federal Education Programs*. Retrieved from <http://www.iel.org/pubs/underflex.pdf>

Jenkins, W. L. (2004). *Understanding and Educating African American Children: From Excuses to Excellence* (12th-Revised ed.). St. Louis, MO: Willima Jenkins Ent.



- Johnson, J., Arumi, A. M., & Ott, A. (2006). *Reality check 2006: Issue no. 4, the insiders: How principals and superintendents see public eEducation today* . Retrieved from Education Insights: Public Agenda:  
<http://www.publicagenda.org/files/pdf/rc0604.pdf>
- Klotz, M. B., & Canter, A. (2006). Response to intervention (RTI): A primer for parents. *National Association of School Psychologists*. Bethesda, MD, National Association of School Psychologists. Retrieved from  
<http://www.nasponline.org/resources/factsheets/rtiprimer.aspx>
- Kovaleski, J. F., Roble, M., & Agne, M. (2010). *National center for learning disabilities*. RTI Leadership That Works. Retrieved from  
<http://www.rtinetwork.org/essential/assessment/data-based/teamprocess>
- Kukic, S. J. (2009, February 26). *RTI action network*. RTI Leadership That Works. Retrieved March 09, 2009, from  
[http://www.rtinetwork.org/index2.php?option=com\\_content&task...](http://www.rtinetwork.org/index2.php?option=com_content&task...)
- LeFever, M. D. (2004). *Learning Styles: Reaching Everyone God Gave You*. Colorado Springs, CO: David Cook.
- Leithwood, K., Louis, K. S., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning*. Retrieved from  
<http://www.wallacefoundation.org/knowledge-center/school-leadership/key-research/Documents/How-Leadership-Influences-Student-Learning.pdf>
- Liu, L. B. (2010, August 31). A case study of multicultural infusion across a teacher preparation program in secondary education. *Doctoral Dissertation*. Ann Arbor, MI: University of Michigan.

- Logsdon, A. (n.d.). Parenting learning disabilities. *About.com*. Retrieved from [http://learningdisabilities.about.com/od/disabilitylaws/a/rtiforldkids.htm?lang=en\\_us&output=json](http://learningdisabilities.about.com/od/disabilitylaws/a/rtiforldkids.htm?lang=en_us&output=json)
- Loschert, K., Gleason, B., & Carter, G. R. (2000). *Raising the Ante for Students, Teachers & Schools*. Alexandria, VA: ASCD.
- Lose, M. K. (2008). Using response to intervention to support struggling learners. *Principal*, 87(3), 20-23.
- Lyman, L. L., & Villani, C. J. (2004). *Best Leadership Practices for High-Poverty Schools*. Lanham, MD: Scarecrow Press, Inc.
- McArdle, F. (2010). Preparing quality teachers: Making learning visible. *Australian Journal of Teacher Education*, 35(8), 60-70.
- McCoy, A. J., & Young, S. (2009). Leadership Education Administration Development Program. Florissant, MO: Ferguson-Florissant School District.
- McNulty, R. J., & Gloecker, L. C. (2011, February). *Fewer, clearer, higher common core standards: Implications for students receiving special education services*. International Center for Leadership in Education. Retrieved from <http://www.leadered.com/pdf/Special%20Ed%20&%20CCSS%20white%20paper.pdf>
- Mellard, D. F., McKnight, M. A., & Deshler, D. D. (2007). *The ABCs of RTI: A guide for parents*. The National Research Center on Learning Disabilities. Retrieved from [http://www.nrld.org/free/downloads/ABC\\_of\\_RTI.pdf](http://www.nrld.org/free/downloads/ABC_of_RTI.pdf)
- MetLife. (2011). *The MetLife Survey of the American Teacher: Preparing Students for College and Careers Part 2: Teaching Diverse Learners*. New York, NY:

Metropolitan Life Insurance Company. Retrieved from

<http://eric.ed.gov/PDFS/ED519278.pdf>

Mickey, R., Dunn, O. J., & Clark, V. A. (2010). *Applied Statistics*. New York, NY: John Wiley & Sons.

Missouri Department of Elementary & Secondary Education. (2012, October 4). *Three-tiered models of intervention and evidence based practice (RTI)*. Retrieved from [dese.mo.gov](http://dese.mo.gov): <http://dese.mo.gov/3tieredmodels/>

Missouri Department of Elementary and Secondary Education. (2012, April 3). Facts About the Department of Elementary and Secondary Education. Jefferson City, MO. The Riverside Publishing Co. Retrieved from <http://dese.mo.gov/overview.html>

Missouri Department of Elementary and Secondary Education Division of Special Education. (2012, February 08). *Data Coordination*. Retrieved from <http://www.dese.mo.gov/divspeced/DataCoord/documents/CC-State-2012.pdf>

Missouri Department of Elementary and Secondary Education. (2011, September 20). *Facts About the Missouri State Board of Education*. Retrieved from DESE.MO.GOV Web site: <http://dese.mo.gov/overview.html>

Missouri Department of Elementary and Secondary Education. (2008, June). *State of Missouri guidance for identification of special learning disability (SLD)*. Retrieved from <http://dese.mo.gov/3tiermodels/rti/documents/RtIGuidance08.pdf>

Missouri Department of Elementary and Secondary Education. (2008). *Guidance for Identification of Specific Learning Disabilities*. Jefferson City, MO: The Riverside Publishing Co.

Missouri Department of Elementary and Secondary Education. (2006, October 5).

Missouri Standards for Teacher Education Programs. Jefferson City, MO: The Riverside Publishing Co. Retrieved from <http://dese.mo.gov/divteachqual/teached/MoSTEP/>

Missouri Department of Elementary and Secondary Education. (2004). Local Plan for Compliance With State Regulations Implementing Part B of the Individuals with Disabilities Education Act. Jefferson City, MO: The Riverside Publishing Co. Retrieved from <http://dese.mo.gov/se/compliance/documents/MCP-FullVersion.pdf>

Moore, D. F. (2008). Improving academic achievement: Can a response-to-intervention (RTI) model help? *American Annals of the Deaf*, 153(4), 347-348.

Morgan, S. (1999-2012). How do you deal with a student who is struggling academically and/or behaviorally?: e.How.com. Retrieved from [http://www.ehow.com/how\\_10007107\\_deal-student-struggling-academically-andor-behaviorally.html](http://www.ehow.com/how_10007107_deal-student-struggling-academically-andor-behaviorally.html)

National Center for Learning Disabilities. (2012). *A parent's guide to response to intervention*. Retrieved April 04, 2012, from <http://www.nclld.org/about-us/mission-and-history>

National Center for Learning Disabilities. (2006). *A parent's guide to response to intervention*. Retrieved from [http://www.nclld.org/images/stories/publications/parentadvocacyguides/parents\\_guid\\_RTIFINAL\\_101111-2.pdf](http://www.nclld.org/images/stories/publications/parentadvocacyguides/parents_guid_RTIFINAL_101111-2.pdf)

National Center on Response to Intervention. (2011). *The complex ecology of response to intervention*. Washington, D.C.: U.S. Department of Education Office of Special Education Programs.

National Center on Response to Intervention. (2010, October 29). *Developing a RTI guidance document*. Retrieved from [http://www.rti4success.org/pdf/NCRTIGuidance\\_102910.pdf](http://www.rti4success.org/pdf/NCRTIGuidance_102910.pdf)

National Center on Response to Intervention. (2010, March). *Essential components of RTI: A closer look at response to intervention*. Retrieved from <http://www.rti4success.org/>

National Commission on Teaching and America's Future. (1996). *What matters most: Teaching for America's future*. New York, NY: National Commission on Teaching and America's Future.

National Dissemination Center for Children with Disabilities. (2009, April). Q & A on IDEA 2004: Purposes and key definitions. Retrieved from <http://nichcy.org/schoolage/qa-series-on-idea/qa1>

National Research Center on Learning Disabilities. (2006). *RTI manual introduction*. Retrieved from [http://www.nrld.org/rti\\_manual/pages/RTIManualIntroduction.pdf](http://www.nrld.org/rti_manual/pages/RTIManualIntroduction.pdf)

National Resource Center on ADHD. (n.d.). *National resource center on ADHD educational issues*. Retrieved from <http://www.help4adhd.org/en/education/rights/idea>

Office of Superintendent of Public Instruction. (n.d.). *Response to intervention*. Retrieved from <http://www.k12.wa.us/RTI/default.aspx>

- O'Hara, S., & Pritchard, R. H. (2008). Meeting the challenge of diversity: Professional development for teacher educators. *Teacher Education Quarterly*, 43-61.
- Orfield, G. (2004). Brown v board: Where are we now? *Teaching Tolerance* 25, 1-3. Retrieved from <http://www.tolerance.org/print/magazine/number-25-spring-2004/brown-v-board-where-a...>
- Ostroff, W. L. (2012). *Understanding How Young Children Learn: Bringing the Science of Child Development to the Classroom*. Alexandria, VA: ASCD.
- Pascopella, A. (n.d.). Update: Avoiding large scale contract problems. *District Administration Magazine*. Retrieved from <http://www.districtadministration.com/article/update-8>
- Pearson. (n.d.). Response to intervention. *Pearson Issue Papers*, 1-28. Retrieved from <http://www.pearsoned.com/files/2010/10/introduction-to-response-to-intervention.pdf>
- Piantanida, M., & Garman, N. B. (2009). *The Qualitative Dissertation: A Guide for Students and Faculty*. Thousand Oaks, CA: Corwin.
- Pinkus, L. (2008, August). *Using early-warning data to improve graduation rates: closing cracks in the education system*. Alliance for Excellent Education Policy Brief. Retrieved from <http://www.all4ed.org/files/EWI.pdf>
- RTI Action Network. (2011). *RTI Action Network: What is RTI?* Retrieved February 26, 2009, from <http://www.rtinetwork.org/learn/what/whatisrti>
- School District U-46. (2008). *School District U-46 RtI Home*. Retrieved from <http://www.u-46.org/rti/index.htm>

- Shapiro, E. S. (2011). Tiered instruction and intervention in a response-to-intervention model. *RTI Action Network*. Retrieved from <http://www.rtinetwork.org/essential/tieredinstruction/tiered-instruction-and-intervention-rti-model>
- Sheets, R. H. (2009, Spring). What is diversity pedagogy? *Multicultural Education*, 16(3), 11-17.
- Shinn, M. (2007, December). Identifying students at risk, monitoring performance, determining eligibility within response to intervention: Research on educational need and benefit from scademic intervention. *School Psychology Review*, 36(4), 601-617.
- Snider, J. (2011, April 26). *Educators rethink teacher training: Member news*. The American Association of Colleges for Teacher Education. Retrieved June 06, 2011, from <http://aacte.org/index.php?/Media-Center/Member-News/educators-rethink-teacher-training...>
- Southern Regional Education Board. (1999-2012). Who we are. Retrieved from [http://www.sreb.org/page/1068/who\\_we\\_are.html](http://www.sreb.org/page/1068/who_we_are.html)
- Stohmyer, K. (2010, August). Staff development and leadership roles related to response to intervention: Levels of implementation in rural schools. *Dissertation*. Minneapolis, MN: UMI ProQuest LLC.
- Teachscape. (2012). Teachscape walk. Retrieved from <http://www.teachscape.com/products/walkthrough/walkthrough-process.html>
- The Advantage Press. (2001, November 1). *November Newsletter*. Retrieved from <http://www.advantagepress.com/newsletters/nov01news.asp>

The American Association of Colleges for Teacher Education. (2011, February 22). *The American Association of Colleges for Teacher Education Annual Meeting Highlights Reforms, Research and Best Practices to Improve Educator Preparation Profession*. Retrieved June 8, 2011, from <http://aacte.org/index.php?Media-Center/Press-Releases-and-Statements/american-associaton>

The Center for the Future of Teaching and Learning. (2011). *School leadership: A key to teaching quality a policy brief on the role of principals in strengthening instruction*. The Center for the Future of Teaching and Learning. Santa Cruz, CA. Retrieved from [http://www.cftl.org/Spotlight\\_On.htm?prodid=10](http://www.cftl.org/Spotlight_On.htm?prodid=10)

The Center for the Future of Teaching and Learning. (2004, April). *Centerview: Insight and Analysis on California Education Policy*. The Center for the Future of Teaching & Learning. Retrieved from <http://www.cftl.org/centerviews/april04.pdf>

The College Board. (2012). *Big Future*. Retrieved from <https://bigfuture.collegeboard.org>

The National Council on Teacher Quality. (2010). *Building Better Teachers: National Review of Teacher Preparation Programs*. Washington, D.C. Retrieved on June 23, 2009, from <http://www.nctq.org/p/edschools/home.jsp>

The Paris-Post Intelligencer. (2011, June 6). *Regents Colleges Phasing in New Plan*. (Opinion/Editorial, Ed.) Retrieved June 6, 2011, from <http://www.parispi.net/articles/2011/06/06/opinion/editorials>

Thomsom, S. B. (2011). Sample size and grounded theory. *Journal of Administration & Governance*, 5(1), 45-52.



- Timmons, M. D. (2008, April 16). Care Team Collaborative: Strengthening Communities One Child At A Time. Zanesville, OH: Muskingum Valley Educational Service Center.
- Tomlinson, C. A., Brimijoin, K., & Narvaez, L. (2008). Chapter 1. Setting the stage for change toward differentiation. In C. A. Tomlinson, K. Brimijoin, & L. Narvaez, Eds. *Differentiated School: Making Revolutionary Changes In Teaching And Learning* (pp. 1-204). Alexandria, VA: Association for Supervision and Curriculum Development.
- United States Department of Education. (2010). A Blueprint for Reform: The Reauthorization of the Elementary and Secondary Education Act. Alexandria, VA: Education Publications Center. Retrieved from <http://www2.ed.gov/policy/elsec/leg/blueprint/blueprint.pdf>
- United States Department of Education. (2009). Teacher Quality Partnership Grant Program. Washington, D.C.: ED.gov. Retrieved from <http://www2.ed.gov/programs/tqpartnership/index.html>
- United States Department of Education. (2004, March). *New No Child Left Behind Flexibility: Highly Qualified Teachers*. Retrieved from <http://www2.ed.gov/nclb/methods/teachers/hqtflexibility.pdf>
- United States Department of Health and Human Services. (n.d.). The nature and design of mixed methods research: *NIH Office of Behavioral and Social Sciences Research*. Retrieved from [http://obssr.od.nih.gov/scientific\\_areas/methodology/mixed\\_methods\\_research/pd](http://obssr.od.nih.gov/scientific_areas/methodology/mixed_methods_research/pd)

f/Best\_Practices\_for\_Mixed\_Methods\_Research\_the\_nature\_and\_design\_of\_mixed\_methods\_research.pdf

University of Missouri-St. Louis. (n.d.). *University of Missouri St. Louis 21st Century College of Education*. Retrieved April 9, 2012, from <http://coe.umsl.edu/web/students/prospective/documents/TCASudenthandbook.pdf>

Vang, C. T. (2005). Minority students are far from academic success and still at-risk in public schools. *Multicultural Education*, 9-15.

Vaughn, S., Schumm, J. S., & Forgan, J. W. (1998). Instructing students with high-incidence disabilities in the general education classroom. *Association for Supervision and Curriculum Development*. Retrieved from [http://www.ascd.org/publications/curriculum\\_handbook/413/chapters/Instructing\\_Students\\_With\\_High\\_Incidence\\_Disabilities\\_in\\_the\\_General\\_Education\\_Classroom.aspx](http://www.ascd.org/publications/curriculum_handbook/413/chapters/Instructing_Students_With_High_Incidence_Disabilities_in_the_General_Education_Classroom.aspx)

Voltz, D. L. (1998). Cultural diversity and special education teacher preparation: Critical issues confronting the field. *Teacher Education and Special Education*, 21(1), 63-70.

Wedl, R. J. (2005). *Response to Intervention: An Alternative to Traditional Eligibility Criteria for Students with Disabilities*. Saint Paul, MN: Education Evolving.

Willis, G. B., & Lessler, J. T. (2006). *Question Appraisal System QAS-04*. Rockville, MD: Research Triangle Institute.

- Wolfberg, P., LePage, P., & Cook, E. (2009). Innovations in inclusive education: Two teacher preparation programs at the San Francisco state university. *International Journal of Whole Schooling*, 5(2), 16-35.
- Woods, R. K. (1994, February). A close-up look at how children learn science. *Educational Leadership*, 51(5), 33-35.
- WorldWideLearn. (1999-2012). Guide to master of arts in teaching degrees: What is a master of arts in teaching? *WorldWideLearn*. Retrieved from <http://www.worldwidelearn.com/online-education-guide/education/master-arts-teaching-major.htm#.UHjqnQeEruM.email>
- Yin, R. K. (1994). *Case Study Research: Design and Methods* (2nd ed., Vol. 5). Thousand Oaks, CA: SAGE. doi:0-8039-5663-0
- Zeichner, K. M., & Conklin, H. G. (2005). Teacher education programs. In M. Cochran-Smith, & K. M. Zeichner, Eds. *Studying Teacher Education: The Report of the AERA Panel on Research and Teacher Education* (pp. 645-735). Mahwah, New Jersey, U.S.: Lawrence Erlbaum Associates, Inc.

**Appendix A: Education Administration Student Interview Questions**

1. What is your current role in the school setting?
2. In your current position, do you use RtI? Components of RtI? If not, have you previously used RtI? If so, in what way?
3. What are the major components of RtI?
4. In your course work, what, if any specific information did you receive on RtI?
5. If your course work did not cover RtI, what impact, if any, do you think this will have on the role of an educational administrator?
6. What knowledge do you presuppose educational administrators need to know about RtI?
7. In your course work were there any discussions about improving the achievement of the struggling learner? If so, how often did these occur?
8. What type of professional development would you require to assist you in supporting teachers with struggling learners? What type of professional development would you implement/suggest for teachers working with struggling learners?
9. What are your thoughts from your field experience observations of administrator's integration of RtI? To what degree was it being taught, introduced, modeled, observed?
10. What other information on RtI would you like to have known from your course work at Lindenwood?

**Appendix B: Student On-Line Survey Questions**

1. What academic program did (are) you pursue(ing) at SSU?  

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2. In what year are you in your academic program?
  - a) Freshman
  - b) Sophomore
  - c) Junior
  - d) Senior
  - e) Graduate Student
  - f) Graduate
  - g) Other, please specify
3. In your coursework, were you aware of the development of RtI?
  - a) Not at all aware
  - b) Somewhat aware
  - c) Aware
4. If your coursework did not cover RtI, what impact, if any do you think this will have on you as a teacher/administrator?
  - a) No impact
  - b) Slight impact
  - c) Impactful
5. RtI is best described as:
  - a) The practice of providing school programs based upon the needs of the most successful students.

- b) The practice of providing high quality instruction and intervention matched to student need.
  - c) The practice of providing instruction based upon our instincts for what students need and using instructional strategies we are most comfortable teaching.
6. Progress monitoring assessment occurs:
- a) Frequently to make decisions about change in instruction or goals.
  - b) Occasionally to make decisions about change in instruction or goals.
  - c) Not necessary to make decisions about change in instruction or goals.
7. 80% of the student population must be at bench mark in order for the core curriculum to be considered successful?
- a) True
  - b) False
8. Essential components of an RtI model are:
- a) Data based decisions.
  - b) 3-tiered model.
  - c) Problem solving methodology.
  - d) All of the above.
9. What is a scientifically or evidence based intervention?
- a) Practices that have been thoroughly reviewed to determine whether they produce positive educational results in a predicable manner.
  - b) Practices that professionals deem appropriate for an individual child.
  - c) Practices that have been published in a magazine, newspaper or other periodical.

10. Data can be used to:

- a) Analyze school data for strengths and weaknesses.
- b) Monitor student's progress.
- c) To check of changes in the instructional program are effective.
- d) All of the above.

Answers: 5. *B.* 6. *A.* 7. *A.* 8. *D.* 9. *A.* 10. *D*

**Appendix C: Faculty Interview Questions**

1. What courses do you teach for Study Site University?
2. How long have you taught for Study Site University?
3. Did you select the courses you teach or were they assigned to you?
4. Are you currently working in a public school? If so, what is your role? If not, what was your previous experience in the setting?
5. In your course(s), how often were there discussions about improving the achievement of the struggling learner?
6. What were your current/past experiences with Response to Intervention?
7. Do you incorporate Response to Intervention into the courses you teach for SSU? Why or why not? (If not, interview will be complete. To what degree is it being taught?)
8. How have your background and perspectives impacted the integration of RTI into your course syllabus?
9. Provide an example of an activity focused in RTI that you use in your class.
10. Do you assess students' knowledge of RTI? If so, how? Please provide a copy of activity or assessment.



**Appendix D: Cross Tabulations of Demographic Variable Pairs**

Table 8

*Areas of Study (Categorized) by Academic Level*

Areas of Study (Categorized)	Academic Level				Total
	Freshman, Sophomore, or Junior	Senior	Graduate Student	Graduated or Doctoral Student	
Education	4	7	11	5	27
Counseling	0	0	16	5	21
Administration	0	0	13	3	16
Teaching	0	6	30	4	40
Science or Math	2	1	3	2	8
Elementary Ed.	12	12	1	0	25
The Arts *	3	18	15	2	38
Other	4	11	5	1	21
<b>Total</b>	<b>25</b>	<b>55</b>	<b>94</b>	<b>22</b>	<b>196</b>

\* English, history, theatre, music, art, languages

Table 9

*Areas of Study (Categorized) by RTI Awareness*

Areas of Study (Categorized)	Q3: In your coursework, were you aware of the development of RTI?			Total
	<i>Not at all aware</i>	<i>Somewhat aware</i>	<i>Aware</i>	
Education	10	7	9	26
Counseling	8	8	4	20
Administration	4	7	5	16
Teaching	14	12	13	39
Science or Math	3	3	2	8
Elementary Ed.	8	10	7	25
The Arts*	19	14	5	38
Other	4	6	11	21
Total	70	67	56	193

\* English, history, theatre, music, art, languages

Table 10

*Areas of Study (Categorized) by Impact of No RTI Training*

Areas of Study (Categorized)	Q4: If your coursework did not cover RTI, what impact, if any, do you think this will have on you as a teacher/administrator?			Total
	No effect	Slight effect	Strong effect	
Education	8	4	12	24
Counseling	2	11	6	19
Administration	2	3	11	16
Teaching	2	14	16	32
Science or Math	0	4	4	8
Elementary Ed.	1	6	16	23
The Arts*	2	15	18	35
Other	2	8	10	20
Total	19	65	93	177

\* English, history, theatre, music, art, languages

Table 11

*Academic Level by Awareness of RTI*

		Q3: In your coursework, were you aware of the development of RTI?			
		Not at all aware	Somewhat aware	Aware	Total
Academic Level	Junior or Lower	11	9	5	25
	Senior	26	18	11	55
	Graduate Student.	28	30	34	92
	Graduated, or Doctoral Student	5	10	6	21
Total		70	67	56	193

Table 12

*Academic Level by Impact of No RTI Training*

		Q4: If your coursework did not cover RTI, what impact, if any, do you think this will have on you as a teacher/administrator?			
		No effect	Slight effect	Strong effect	Total
Academic Level	Junior or Lower	0	10	14	24
	Senior	8	19	25	52
	Graduate Student.	10	28	42	80
	Graduated or Doctoral Student	1	8	12	21
Total		19	65	93	177

Table 13

*Awareness of RTI by Impact of No RTI Training*

		Q4: If your coursework did not cover RTI, what impact, if any, do you think this will have on you as a teacher/administrator?			
		No effect	Slight effect	Strong effect	Total
Awareness of RTI	Not at all aware	10	31	25	66
	Somewhat aware	5	26	35	66
	Aware	3	8	32	43
Total		18	65	92	175

**Appendix E: Context of References to “RTI”**

Table 14

*References to RTI in Context*

Source	Interview Question	Text
3	1	So when you brought up RTI, I was thinking how much it was emphasized in the other 2 classes.
3	6	My PLC training was a natural lead-in to RTI because the kinds of discussions you have to have during PLC’s would be if someone is struggling and not making a target, the different groups gather together, “What do we do in response to them not getting there?”
3	6	We’d have our discussions on what is the role of the ancillary personnel in supporting RTI.
3	7	Last night the entire lecture was based on “How did RTI come into being? And we talked about all the way back to discrepancy model, into regression analysis, and then it turns out, now we’re trying to define handicap based on our regular observations and multiple pieces of data.
3	7	We talk about RTI being for every student, and not just for labeled kids.
3	9	We show them at least 2 different schools and how they implement it, so they know what it looks like when it’s documented and, oh, we also give out, why RTI and what we do
3	9	Any research that comes out, that further clarifies RTI, we try to share research articles.
4	6	My previous experience and reading about RTI, yes. Since 1998, things have changed. I spend a portion of class looking at various programs being utilized and the best situations in which to use them.
6	5	In HR management we talk about such programs as RTI and being informed about, it isn’t just to provide training for teachers, but the principals and school leaders need to be involved in that, because if I as HR person or building principal if I’m out recruiting high quality (HQ) teachers I have to know what skills HQ teachers have.
6	5	This is what my data says, now what do I do next, to provide a quality learning experience for that child, that didn’t work, now what do I do next, and that’s really what RTI is.

Continued

*References to RTI in Context*

Source	Interview Question	Text
6	5	Therefore, it all rolls down from that, interview questions need to be designed around models like RTI and recruitment needs to be, developing your profiles of recruitment, induction. If people don't have a strong background about meeting the needs of all students, then how does that play out in the induction process, staff development process.
6	6	I attended RTI training because, like I said if I were going to recruit people who had skill sets we felt they needed, then I need to understand what those skill sets were.
6	9	The students have to design questions related to the profile they've established and that's related to—obviously— meeting the needs of all students. It could be the inclusion of programs like RTI in their school improvement programs they have to develop and submit at the end of the semester. It's interwoven into everything.
7	6	We talk about RTI as a model for student achievement and we will talk about interventions.
7	9	Articles that we read and I pull from the RTI website. I also use a great book, Jimerson: <i>Handbook of RTI—The Science and Practice of Assessment</i> . Used as a resource for lectures.
8	5	For the graduate class we talk more about interventions regarding the assessments then we do in conjunction w/RTI, so depending upon the results of the assessment we'll talk about things that the school counselor may want to do in order to assist that student.
8	6	A lot of the websites I reference for my lecture and things like that they really send out webinars and here is how one school is implementing a block of time for RTI interventions and things like that.
8	8	Because RTI can be a real benefit to students who are struggling and close the gap. But then those of us who are certified to administer tests to diagnose disabilities—there's ultimately, kind of a slightly different threat to get ousted a job here.
8	9	Lecture on RTI, quizzes, course discussions, referral process in undergraduate courses. Indirect activities that we do, lots of discussions and also tests over that information.

Continued

*References to RTI in Context*


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Source	Interview Question	Text
8	10	Yes, basic tests information provided. Graduate students testing, basic types of questions for general information about RTI.
9	6	We have had 2 years of training on RTI intermittently. It is not a priority at this time, but we believe it's coming from the state so we are utilizing it in conjunction with what we already have in place.
9	8	It's really important to me that the needs of all kiddos be met and they will be met through RTI.
10	6	Trainings in RTI. Pseudo implementation in some elementary schools, it wasn't a fully implemented program, we did have some tiering and some data collection.
10	7	I have not on a complete RTI program. I give them a general idea; I frequently bring in school guidance counselor or other representative to talk to them about RTI; like a brief, mini workshop.
12	6	Well, I had to deal with RTI as a teacher and an administrator all the time. As an assistant principal special school district liaison, so at every IEP that existed.
13	7	Not specifically, as phraseology being RTI, unless you talk about principal preparation courses and I have, not the ones I'm currently teaching, but like the ones 510 and 512 it comes up a lot. It doesn't work well in the school finance curriculum.
13	10	Not of RTI specifically, of course of their assessment of teaching strategies for struggling students, yes, which is the underlying principal behind RTI.

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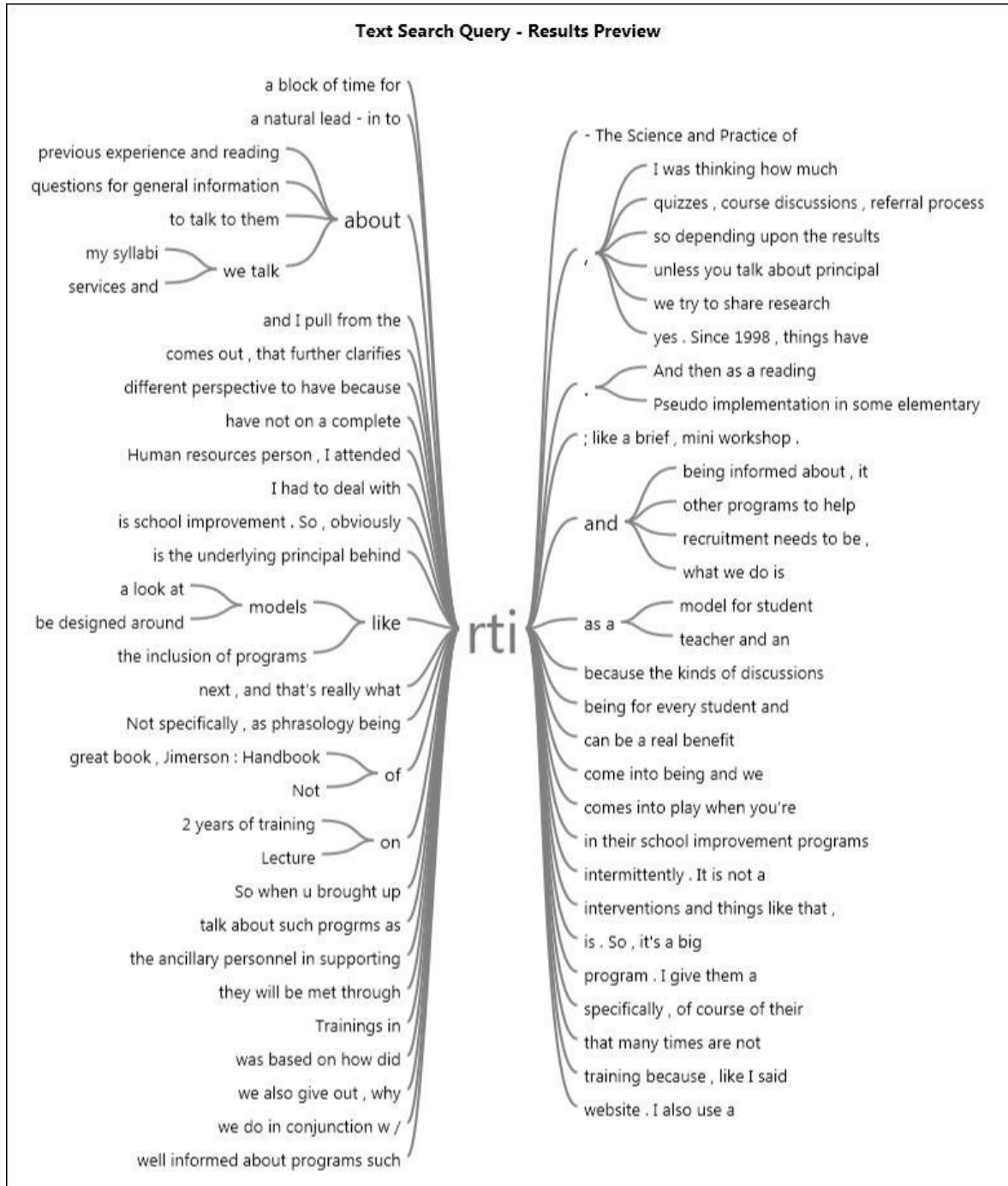


Figure 36. Word tree for “RTI.”



**Appendix F: Word Frequency Lists**

Table 15

*Instructors' Word Frequency List*

Word	Weighted Percentage (%)	Words in Group
school	2.77	education, school, schools, trained, training, trainings
education	1.64	develop, developed, developing, development, education, instruction, instructional, preparation, prepares, preparing, teach, teaches, teaching, trained, training, trainings
students	1.60	student, students
class	1.53	class, classes, course, courses, grade, grades
teachers	1.51	instructor, teacher, teachers
reading	1.24	indicating, interpret, learn, learning, reading, record, shows, studies, study, understand
special	1.00	differentiated, differentiating, especially, exceptional, special, specialist
programs	0.93	curriculum, plans, program, programs, schedule
intervention	0.91	intervention, interventions
needs	0.90	asked, involved, needed, needs, requirements, wanting
principal	0.87	principal, principals
teaching	0.84	instruction, instructional, learn, learning, teach, teaches, teaching
assessment	0.82	assess, assessment, assessments, evaluate, evaluating, evaluation, measurement, measuring
management	0.81	achievement, coach, coached, dealing, deals, director, management, realize, superintendent, supervision
level	0.62	grade, grades, level, levels, point, points, tiering, tiers
building	0.61	build, building, buildings, established, figure, figuring, making
assigned	0.59	assigned, assignment, assignments, design, designed, designing, portion
course	0.59	course, courses, natural, nature, tracking
practice	0.59	experts, practical, practice, practices, skill, skills, using
classroom	0.55	classroom
counseling	0.55	counseling, counselor, counselors, guidance
information	0.53	inform, informal, information, informed, instruction, instructional
based	0.53	based, established, foundation, foundations
selected	0.53	choose, choosing, picking, quality, selected, selection
district	0.50	district
improvement	0.50	better, improve, improvement, improving
struggling	0.50	struggles, struggling
tests	0.50	examiner, examiners, testing, tests, trying
adjunct	0.46	adjunct, ancillary, assist, assistant
different	0.46	different
elementary	0.46	elementary
implement	0.46	implement, implementation, implemented, implementing
lecture	0.46	lecture, lectures, talked, talking
helping	0.43	availability, available, facilitator, helping, helps, portion, service, services
administrator	0.43	administer, administered, administration, administrative, administrator, administrators, established, organization
think	0.42	believe, believed, consider, considered, intelligence, reason, think, thinking
research	0.41	research, researcher
undergraduate	0.41	undergrad, undergraduate

Continued

*Instructors' Word Frequency List*

Word	Weighted Percentage (%)	Words in Group
model	0.40	examples, model, models
meeting	0.39	contact, gather, meeting, meetings, receive, touch
current	0.37	current, currently
graduate	0.37	graduate
person	0.37	individual, individually, person, personally, someone
process	0.37	process, worked, working, works
questions	0.37	interview, interviewing, questions
university	0.37	exist, existed, general, population, universal, university
initiatives	0.35	format, induction, initial, initiative, initiatives, knowledge, opening, start, started, starting
correction	0.35	adjusting, correction, right, setting
foundations	0.34	foundation, foundations, initial, initiative, initiatives, introduction
discussions	0.33	discussion, discussions, words

Table 16

*Candidates' Word Frequency List*

Word	Weighted Percentage (%)	Words in Group
1. teachers	2.49	teacher, teachers
2. school	1.81	education, educational, school, schools, training
3. course	1.71	class, classes, course, courses, forms, grade, grades, tracking, trend
4. students	1.50	student, students
5. level	1.31	charge, degree, degrees, grade, grades, level, levels, points, stages, tiered, tiers
6. administrator	1.17	administrator, administrators
7. interventions	1.17	intervention, interventions
8. special	1.08	differentiated, except, extra, particular, special, specialist
9. working	1.07	bring, forms, making, processes, solving, worked, working, works
10. development	1.06	develop, development, education, educational, formulate, training
11. support	1.04	assist, assistance, assistants, document, documentation, helped, helps, support, supporting, supports
12. struggling	0.98	struggling
13. require	0.95	asked, expect, involve, involved, necessary, needed, needs, require, takes, wanting, wants
14. learners	0.89	learner, learners
15. position	0.84	advantage, office, place, placing, position, putting, setting, state, stated
16. professional	0.84	master, professional, professionals
17. different	0.80	different, differently
18. classroom	0.75	classroom, classrooms
19. building	0.75	build, building, figure, forms, making, progress
20. information	0.73	conversation, conversations, information, instruction, instructional, instructs
21. current	0.70	current, currently, present, presentations, presented, presenting

Continued

22. reading	0.69	interpretation, learn, learning, reading, showed, takes, understand, understanding
23. observations	0.66	finding, follow, notes, notice, observations, observe, observed, watching
24. implement	0.61	implement, implemented, implementing, implements
25. successful	0.59	achievement, successful
26. components	0.56	components
27. educational	0.52	education, educational, instruction, instructional, instructs, teach, teaches, teaching, training
28. class	0.50	class, classes, families, separate, separated
29. experience	0.50	experience, knowing, receive, seeing
30. effective	0.49	effect, effective, effectively, issue, issued, issues
31. helps	0.47	aides, available, facilitator, helped, helps, serve, service, serviced, services, servicing
32. knowledge	0.47	knowing, knowledge, learn, learning
33. principal	0.47	master, principal, principals
34. field	0.45	areas, discipline, field
35. cover	0.42	address, continue, continued, cover, screening, tracking
36. integration	0.41	entire, incorporated, integration, structured, whole
37. based	0.41	basal, based, found, ground, means
38. practices	0.40	commitment, commitments, practice, practices, proficient, skill, skills, using
39. specific	0.40	particular, specific, specifically
40. recall	0.38	recall, remember, thinking
41. advanced	0.38	advanced, approach, better, improve, improving
42. modeled	0.38	model, modeled
43. often	0.38	often
44. program	0.38	curriculum, planning, program, programs, schedule
45. setting	0.38	background, dictating, place, placing, putting, setting
46. something	0.38	something
47. typically	0.38	typical, typically
48. ideas	0.35	ideas, thoughts
49. trying	0.35	effort, tried, trying
50. impact	0.34	impact, touched

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**Curriculum Vitae**

LaDonna Barnett was born in St. Louis, Missouri. She currently resides in the city of St. Louis with her husband William. She received a Bachelor of Science in Education from Southeast Missouri State University, Cape Girardeau, Missouri in 1984. In 1990 she received a Masters of Education in General Counseling from the University of Missouri in St. Louis, Missouri where she received honors on her scholarly paper. Considering herself a lifelong learner, LaDonna Barnett continued her education in 2010 receiving her Master of Arts in Administration of Education from Lindenwood University, St. Charles, Missouri and K-8 and 7-12 Initial Administrator Certification. In the year of 2013 she anticipates the awaited Doctor of Education in Education Administration degree also from Lindenwood University in St. Charles, Missouri.