



JOURNAL OF  
SCHOOL CONNECTIONS

VOLUME 6, NUMBER 1 / SPRING 2018

# *JOURNAL OF SCHOOL CONNECTIONS*

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# *JOURNAL OF SCHOOL CONNECTIONS*

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**Length of manuscript.** A manuscript should be 25-35 pages (including references, tables, and figures). All manuscripts must be page numbered and double-spaced in 12- point font with 1-inch margins all around.

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Volume 6    Number 1    Spring 2018

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## Editors' Introduction

Welcome to Volume 6 of *Journal of School Connections (JSC)*! We are delighted to share this publication with you! With the support of our Editorial Review Board and Guest Reviewers, we have selected four papers, focusing on educators' perspectives, that we hope you will find interesting and informative.

The first paper, *Response to Intervention: Educators' Perspectives on Lessons Learned and Future Directions* by Michael Dunn, discusses Response To Intervention (RTI) from multiple perspectives and its effectiveness. The second paper, "*I'm the One with the Child with a Disability*": *Head Start Instructional Professionals' Perspectives on Inclusive Education* by Leah Schoenberg Muccio and Julie K. Kidd, examines Head Start teachers' perspectives regarding children with disabilities in their classrooms. The third paper, *Self-Efficacy of Pre-Service Teachers' Literacy Teaching: Integrating Modeling and Reflection with Content and Pedagogy in a School-Based Setting* by Sara E. Miller, Katrina L. Maynard, and Amelia A. Hollingsworth, explores how pre-service teachers' self-efficacy changed when exposed to an integration protocol of modeling and reflection of literacy content and instructional pedagogy in an elementary methods course. The fourth paper, *Teachers' Voices: Autonomy and Literacy Practices in Secondary Schools* by Carol J. Delaney, Victoria Gillis, Nancy Walker, and Gilda Martinez-Alba investigates middle and high school teachers' views of teacher autonomy in varying areas of curricular decision-making. Taken together, we hope these papers stimulate meaningful thought and actions for future research and practice.

As of January, 2014, the *Journal of School Connections* has been indexed in the Education Source database within Ebscohost. According to EBSCOhost, "This massive file offers the world's largest and most complete collection of full-text education journals, and encompasses an international array of English-language periodicals, monographs, yearbooks and more. As the complete source of education scholarship, Education Source covers all levels of education—from early childhood to higher education—as well as all educational specialties, such as multilingual education, health education and testing. Content includes:

- Full text for over 1,800 journals
- Indexing and abstracts for thousands of journals
- Full text for more than 550 books and monographs
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With the advent of this greatly increased electronic exposure, we have decided to eliminate the production of hard copies for future *JSC* volumes. Although we have previously enjoyed publishing in both electronic and paper formats, financial and environmental considerations have led to this decision. We sincerely hope that you continue to read and enjoy *JSC* as it remains an open source publication.

**DIANE H. TRACEY, Ed.D.**  
**& SUSAN R. POLIRSTOK, Ed.D.,**  
**CO-EDITORS**



## **Response to Intervention: Educators' Perspectives on Lessons Learned and Future Directions**

**MICHAEL DUNN**

*Washington State University Vancouver*

*This qualitative study discusses the elements of Response To Intervention (RTI) that educators think the model should encompass. Research questions focused on the role of IQ in determining eligibility for special education, the impact of technology as a part of intervention programming, and possible next steps for RTI given the most current reauthorizations of the Individuals with Disabilities Education improvement Act (IDEiA) and the No Child Left Behind (NCLB) Act (now the Every Student Succeeds Act [ESSA], 2015). The design employed qualitative interview methods with semi-structured interview questions. To analyze the data, the author applied an in-depth, five-step framework analysis approach (Ritchie & Spencer, 1994; Rubin & Rubin, 1995; Silverman, 2000) to assess respondents' perspectives about RTI. In the results, participants identified three key themes for implementation: instructional programming; assessment; and policy/budget. As for the study's conclusions and implications, participants affirmed that RTI represents best practice for intervention and assessment for learning disability classification, supports the need for enhanced government funding of RTI, and highlights the importance of general educators playing an integral role in the intervention and assessment processes. Thus, this study bridges an important gap in the literature, offering a collective set of ideas and options for further refinement of RTI as well as avenues for future research.*

*Keywords: Response to Intervention, tiered supports, IQ achievement discrepancy model*

## **Introduction**

Response To Intervention (RTI; Gresham, 2002) is a conceptual paradigm for general and special educators to employ in classroom practices, programming, and assessment to identify students with dual discrepancies (i.e., low performing and making little or no progress over time) who could benefit from more intensive levels of intervention. Due to racial and ethnic biases inherent in IQ tests as well as a need to make general and special education more effective, educators have sought an alternative that would be more focused on early intervention and a curriculum-based means of assessing students over time (Fuchs, Mock, Morgan, & Young, 2003; Heller, Holtzman, & Messick, 1982). RTI promotes other key aims of: recursive practices to review and revise general education programming; increased collaboration between general and special education teachers' review of assessment data and instructional team-planning for students' instructional programming; and identification of students as early as kindergarten for special education in lieu of the traditional IQ/achievement discrepancy method which can be a lengthy process during which students are not receiving optimal intervention.

The first application of RTI in public schools began in 1980 in the Heartland (Iowa) Education Agency (Fuchs, Mock, Morgan, & Young, 2003). Since then, RTI has received attention in the literature (e.g., President's Commission on Special Education [2002]) and official recognition (e.g., Individuals with Disabilities Education Improvement Act IIDEiA, 2004). Schools have the option to design and apply their own version of this IIDEiA intervention and assessment paradigm for learning disability, which represents the largest portion of students in special education (Hauerwas, Brown, & Scott, 2013; US Department of Education, 2014). Many school districts widely apply the RTI paradigm to various disability categories. Currently, RTI is required in some U.S. states, as well as some parts of Canada (e.g., Aylward, Farmer, & MacDonald, 2007) and Australia (Kraayenoord, 2007). The RTI model provides research/evidence-based instruction, early intervention, and data to monitor student progress and accurately support special education classifications (Berkeley, Bender, Peaster, & Saunders, 2009; RTI Adoption Survey, 2010).

While previous literature has focused on design aspects, intervention strategies, and conceptual questions, this study is the first known research summary of the perspectives of experienced educators (e.g., RTI researchers and educational consultants) on implementation and next steps for the model. Now, 35 years after RTI was first implemented in public schools, this study explores interviewees' perspectives on best practices

and assessment features. This study also explores how much change in educational policy is needed for implementation (e.g., whether this requires additional funds). Participant responses describe RTI components and suggest a possible title change to “Multi-Tiered System of Supports (MTSS; see Hurst, 2014). In addition, the literature review provides insights into educators’ perspectives on RTI’s creation and components (e.g., Fuchs et al., 2003; Gresham, 2002), given the paradigm’s widespread adoption.

### **Rationale for Response To Intervention**

The roots of the response to intervention paradigm stem from Caplan’s (1964) public/mental health model and its three-tier framework: 1) primary (preventative; Tier 1) support through direct education and skills development; 2) intensive (targeted; Tier 2) interventions for those deemed to be at-risk; and 3) tertiary (intensive; Tier 3) direct or individual programming to minimize the frequency, duration, and/or intensity of the condition. The RTI paradigm became preferred by educators to address: a renewed aim of reviewing and revising general education programming for struggling students; increased collaboration between general and special education; and a growing discontentment with the prominence given to IQ tests in learning disability classification (Harlacher, Potter, & Weber, 2015).

Since Dunn’s (1968) article about students with disabilities needing to be placed in general education classrooms for at least part of each school day, Tier 1 has represented the goal for placement as the least restrictive environment, where students with disabilities can be challenged and experience grade-level core curriculum instruction. Will’s (US Department of Education, 1986; Will, 1986) Regular Education Initiative was a further affirmation of this practice. All known writings and presentations about a comprehensive RTI system begin with a discussion of the general education classroom. The periodic curriculum-based measures (e.g., weekly, monthly) of students’ changes in reading, writing, and math skills represent the desired replacement of IQ for monitoring children’s progress and possible need for general education instructional changes, more intensive intervention programming, or long-term special education placement.

Although the concept of learning disability originates from the research of Gall and Spurzheim (1809) and Broca (1861), it was not until the early 20th century that educators developed its classification framework. This assessment paradigm would become known as the “wait-to-fail” model in which students were taught core academic skills (i.e., reading, writing, and math) in kindergarten through third grade. Children who remained two years or more below grade level by the end of grade three were assessed for their potential (i.e., completing an IQ test) and academic achievement

to determine if a sufficient discrepancy (e.g., 15 points or more on IQ measure or 50% discrepancy between ability and achievement) existed. This act-later approach prompted a need for an alternative intervention that could be implemented more quickly so that lagging performance could be targeted earlier, which resulted in a refined RTI model for public schools (Fuchs, Fuchs, & Vaughn, 2015; Gresham, 2002; Lyon, Fletcher, Shaywitz, Shaywitz, Torgesen, Wood, Schulte, & Olson, 2001; Sugai & Homer, 2009). A National Research Council study (Heller, Holtzman, & Messick, 1982) recommended:

- 1) Educators should regularly review their general education (Tier 1) curricula/classroom practices to include research/evidence based practices;
- 2) General education students should complete universal screening assessments for core subject areas three times a year (e.g., September, January, and April) to determine which children are dually discrepant (i.e., low ability and little or no progress over time);
- 3) Educators should provide intensive intervention programming (Tier 2) to students with a dual discrepancy;
- 4) General and special education personnel should collaborate in program planning and decision-making about next steps for students;
- 5) Teachers should use curriculum-based measurement to define students' skill levels as they progress in one or more intervention cycles (Deno, 2003; Fuchs et al., 2003); and
- 6) Educators should discontinue the use of IQ tests as the determining factor for special education classification.

Recommendations for Tier 3 three could include more intensive intervention than Tier 2 (e.g., smaller groups and more time), a timeframe for completing diagnostic assessments, or the beginning of placement in special education services. In keeping with this tiered approach, the U.S. Department of Education authorized RTI as an option for states to use in referral and assessment for Learning Disabilities (LD) (IDEiA, 2004) without providing explicit criteria for the paradigm. The absence of this guidance accounts for variations in practice across the country, which may limit student progress and make results from one district to another less comparable for research purposes.

Given these inconsistencies in translating the paradigm into practice, The Institute of Education Sciences (IES) (2015) released a report about RTI implementation for early- elementary reading. The analysis focused on the practices in place for the 2011-12 school year in 146 elementary schools from 13 states. About 86% of sampled schools had fully implemented RTI. While intervention programming in these schools was pro-

vided, it did not always include the timeframe of core instruction or involve only those students who were below grade-level ability. For first-grade students who were below grade level in Fall and participated in intervention programming, Spring reading scores indicated even lower levels. The authors suggested that: 1) universal screening practices may have resulted in a number of false negative students, who should have been in intervention groups; and 2) a mismatch of students' needs to instructional programming may have occurred.

Despite RTI findings that show poor or inconsistent outcomes, there is also a growing body of research evidence to support RTI's effectiveness. Burns, Appleton, and Stehouwer (2005) completed a meta-analysis of response to intervention practices using terms and limitations that are well known amongst RTI researchers (e.g., Heartland, IQ; intervention-based assessment, instructional support teams). The results indicated effect sizes ranging from 0.18 to 3.04, a wide range when considering the practical significance of RTI intervention. One of the concerns that educators may express about RTI is that the paradigm will result in larger numbers of students being identified as having a learning disability. Burns and colleagues noted that 11 studies had reported a percentage of non-responders (2.7-44.0%) (students who had previously been labeled with a learning disability but did not attain a study's operational definition of adequate responsiveness to an intervention). Four studies included data about the percentage of students referred and placed in special education; the average referral rate was 1.26%. This demonstrates a measure of effectiveness by being lower than the US Department of Education's (2014) data of 4-6%. Gersten, Compton, Connor, Dimino, Santoro, Linan-Thompson and Tilly (2008) affirmed that certain types of measures (e.g., letter naming fluency, phoneme segmentation) can be used to accurately predict future student performance. By educators universally screening all students at the beginning and middle of the year, differentiating instruction for all students based on their assessment scores, providing intensive instruction for students who were below benchmark, monitoring Tier 2 students monthly, and providing additional daily intervention to students who remain dually discrepant, schools would be employing best practices to prevent the fewest number of students possible falling behind in academics (Gersten, Beckmann, Clarke, Foegen, Marsh, Star, & Witzel, 2009).

While there is an emerging body of research to document RTI's effectiveness, lingering areas of concern remain. IQ may not deserve to be the gate-keeper of special education placement, but it could help educators in exploring diagnostic information about student cases, especially for older students (Fuchs & Young, 2006). With the criticisms of IQ as a chief de-

terminant of learning disability (e.g., Fletcher, Lyon, Stuebing, Francis, Olson, Shaywitz, & Shaywitz, 2002; Siegel, 1989, 1999) and the promotion of RTI by advocates to replace it, there are lingering questions about what the RTI protocol should entail (Fuchs, Mock & Moran, 2003). Length of intervention programming per day over how many weeks or months, the number of data points indicating improvement, the degree of positive change beyond baseline, as well as the role of parents and their legal rights to procedural due process, continue to be debated. With the Every Student Succeeds Act (2015) and its inclusion of multi-tiered systems of support (MTSS), the scope of academic difficulty can be enlarged to not just reading, writing, or math, but more broadly to the student's larger academic, behavioral, and school/home life degrees of function; learning and assessment are complex phenomena and occur in a multifaceted context (Bronfenbrenner, 1979).

### **Examples of RTI Challenges**

While a change from the 'wait-to-fail' model to RTI was certainly needed, changes in educational policy and practices such as at the district level often require dialogue, re-tooling, and further research to develop a refined and agreed upon set of practices (National Association of State Directors of Special Education, 2005; Vaughn, Zumeta, Wanzek, Cook, & Klingner, 2014). This is especially the case given that districts or schools have the option to shape the design of their own RTI framework. IDEiA (2004) does not specify an explicit set of RTI components. States have the option of allowing schools to create their own paradigm. Organizations such as the National Center for Response to Intervention (2015) provide an array of tools and information to help schools design and implement RTI, but lingering issues remain.

Teachers should be given ample opportunity to learn what an RTI model should entail, and how intervention and assessment programming can be managed. In offering this information to teachers, administrators hope to promote educator buy-in to RTI. Despite these efforts, Gerber (2005) questioned whether a general education teacher's participation in intervention programming would be feasible. In any class of students, teachers may not have the time and resources to provide specifically designed instruction for students who need it most. Gerber also doubted that governments would provide adequate funding for professional development.

Werts, Carpenter, and Fewell (2014) completed a survey study with 211 special education teachers in rural counties of North Carolina on the benefits and barriers of RTI. Respondents' positive perceptions of RTI

included student improvement (72.8%; e.g., intervening earlier, using differentiated- instructional methods) and benefits to teachers (16%; e.g., increased collaboration, changing perceptions of special education). Similar to Gerber (2005), about 16% of Werts et al.'s respondents noted the lack of professional development for appropriate design and implementation (e.g., how to manage intervention programming and assessment). Without this foundational knowledge and administrator support, 15.4% of survey respondents mentioned the lack of general education teacher buy-in, along with actual fear. The largest area of concern (44.7% of respondents) was that the design and implementation of the RTI paradigm was too burdensome (e.g., lack of time, added workload). Bineham (2014) as well as Castro- Villarreal, Rodriguez and Moore (2014) produced similar findings from administrators, teachers, and support personnel. Major findings also included a belief that RTI encourages teamwork yet makes additional work for teachers; professional development is a distinct need.

Not all members of the educational policy community feel that schools should receive more funding for professional development and additional teachers for intervention/assessment programming or to promote teaming. In 2005, the U.S. Department of Education suggested that increased educational spending is not necessary, and that schools should instead spend funds on curricula, practices, and materials that do work. Between 1966 and 2004, federal education spending increased over 20-fold. However, National Assessment of Educational Progress reading scores did not increase during that time. Conversely, Jackson, Johnson, and Persico (National Bureau of Economic Research, 2015) concluded through event study and instrument variable models that:

A 10 percent increase in per-pupil spending each year for all twelve years of public school leads to 0.27 more completed years of education, 7.25 percent higher wages, and a 3.67 percentage-point reduction in the annual incidence of adult poverty; effects are much more pronounced for children from low-income families. Exogenous spending increases were associated with sizable improvements in measured school quality, including reductions in student-to-teacher ratios, increases in teacher salaries, and longer school years (p. 3).

As important as funding is to public education, other confounding variables and challenges affect the outcomes of student performance and educational research. Examples include cultural and linguistic factors (Cook, Boals, & Lundberg, 2011; Hakuta, Butler, & Witt, 2000; Thomas & Collier, 2002), parental attitudes, student interest, and class size (e.g., Majovski & Breiger, 2009).

Additional challenges around classroom assessment and instruction using technology have prompted questions about how students with LD become referred and possibly classified for special education services. In a school's adoption of RTI, should IQ be completely discarded given its cultural and linguistic bias? (Artiles, 2015). The concept of racial, ethnic, and linguistic biases are too complex to remedy through policy alone. Compared to IQ tests, the language of classrooms (e.g., predominantly English) and the academic standards (e.g., Common Core State Standards) in which interventions such as RTI operate pose significant challenges to students from culturally and linguistically diverse backgrounds (Ernst-Slavit, & Mason, 2011; Gottlieb, & Ernst-Slavit, 2014).

In the most recent grade 12 National Assessment of Educational Progress (NAEP) Reading (2013) assessment, African-American and Latino/Latina students scored 29-21 % below Whites, who scored at 46%. The achievement gap in reading between minority students and their White counterparts has persisted across time and, while IQ distributes similarly between minority and White students, the impact of poverty and the many linguistic exceptions of English grammar, syntax, etc. (e.g., Banks & Banks, 2010) on academic performance, present considerable challenges which children must meet to become proficient readers and writers (e.g., Shaywitz, Morris, & Shaywitz, 2008). Intervention programming can help many struggling readers improve. Fuchs and Young (2006) suggested that, "...select child characteristics like IQ may help teachers provide differentiated instruction—through various grouping arrangements, perhaps, or by modifying their pace or explicitness of instruction" (p. 26).

### **RTI and Technology**

As a teacher considers assessment data and intervention design, the Common Core State Standards' (NGA, 2010) emphasis on technology may promote students' use of computer software applications as part of next-steps programming. Educators have proposed various uses for technology within an RTI framework. Universal design for learning (CAST, 2015) offers a framework for teachers to place furniture, materials, and technology in the classroom so as to make instruction effective for students' learning. Gaming is very popular for both students and adults (Nielsen, 2014). Marino and Beecher (2010) suggested that gaming can be helpful, and recommended video games for secondary students' science vocabulary acquisition as a component, not replacement, of classroom instruction. In these contexts, students learn science-content vocabulary by completing game tasks in increasing levels of difficulty. Teachers can have students participate in whole-class inquiry or do activities in pairs with someone of similar

ability. The game records how students manage tasks (e.g. does the student seek reminders for directions?) and scores student progress. The teacher can log in and see these records in real time or later review them. When students' progress-monitoring scores indicate a need for further remediation (e.g., help with reading comprehension), the teacher can arrange for a Tier 2 intervention as added instruction; students should have a portion of the science class timeframe to interact with the game activities given their skill-building and practice capabilities. If further intervention is needed (e.g., Tier 3), Marino and Beecher suggested that the students use additional technology tools (e.g., speech-to-text software). For elementary and secondary students with a learning disability, Smith and Okolo (2010) described several web-based applications that students can use including graphic organizers (e.g., Inspiration) and writing- assistance software (e.g., Dragon Naturally Speaking). These authors emphasized that, "it is also important for teachers to offer mediated scaffolding, or individualized guidance, assistance, and support" (p. 266).

In special education, IDEiA (2004) defines assistive technology as, "any item or service that is used to increase, maintain, or improve functional capabilities of a child with a disability" (Section 300.5). Examples can include a pencil grip, functional behavior assessment and intervention processes (see Crone & Horner, 2003), computer hardware/software programs, and mobile applications (hereafter referred to as "apps"), etc. In this study, "technology" referred to software (e.g., productivity apps such as WORD, games) within desktop computer and mobile tablets (e.g., iPads; smartphones). For progress monitoring, Buzhardt, Walker, Greenwood, and Heitzman-Powell (2012) asserted the practicality of using technology tools to help teachers manage assessment gathering over time, use scores to more meaningfully illustrate students' changes in ability, and interpret data better than manual interpretation by teachers. In summary, technology can play a vital part in an intervention and assessment plan for students, although not the only component. Kennedy and Deshler (2010) commented that, "... instruction should reflect multimedia design principles that are a match for the cognitive learning needs of the intended population of learners, as much as being a logical addition to the overall plan for teaching" (p. 293).

### **The Present Study**

Given the changing nature of education including technology tools, curriculum standards, and school demographics as well as RTI's application in public schools, the researcher sought to obtain educators' perspectives about what can work best in the paradigm. There is a distinct need for more information on the implementation and effectiveness of RTI. Educators' perspec-

tives on RTI's implementation since Heartland, Iowa, and IDEiA (2004) can offer insights as to what should be formally adopted in an RTI process as well as how instruction and assessment practices can be improved.

### **Research Questions**

In the present study, qualitative interviews explored educators' perspectives on the following research questions:

1. What have interviewees (RTI advocates/researchers) learned about instruction and assessment?
2. What do interviewees believe the role of technology should be within RTI?
3. How do interviewees view the role of IQ within RTI?
4. What do interviewees suggest about RTI requiring additional funding for school implementation?
5. What do interviewees suggest as the next iteration of RTI in terms of design and public policy (e.g., reauthorizations of NCLB, IDEiA)?

Programmatic change in public education is a huge task with far-reaching implications. These research questions illustrate this. Because RTI is a paradigm, not a highly-defined set of practices, the answers to these questions will be nuanced and reflect opinions. Given this context, the aim of this study was to offer some "thick and rich descriptions" about instruction, intervention, assessment, and funding in the context of RTI, now at its 35-year milestone, from a small group of educators who have been involved in RTI processes. Their insights can help inform a discussion of some of the lessons learned and ideas for next steps.

### **Method**

Interviews were designed to explore educators' perspectives about RTI's current status as well as future directions. The design employed qualitative interview methods following those of Briggs (1986) and the Council for Exceptional Children's quality indicators for research (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005; Odom, Brantlinger, Gersten, Homer, Thompson, & Harris, 2005) for interview studies: appropriate participants are selected, interview questions are reasonable, adequate methods are applied to record and transcribe interviews, results are fairly and sensitively presented in the report, and the researcher employs sound methods to ensure confidentiality. Furthermore, the Institutional Review Board at Washington State University (Vancouver) approved the procedures for this study.

To form a participant pool, the researcher identified a purposeful sample of educators who were familiar with, and had experience in, RTI (e.g., teachers, educational researchers, school psychologists) from university-library journal article and book databases, Council for Exceptional Children Annual Convention presenters' lists on RTI, and Google searches. This produced a list of possible participants (98) of which 12 agreed (all Caucasian; 58% male, 42% female). Collectively, their teaching experience in education ranged from 15-36 years and were inclusive of all public-school grade levels as well as select university education programs. Their collective experiences with Response to Intervention included that of being school-based education personnel, educational researchers, and consultants (see Table 1).

Table 1. Participant Descriptions

<u>Interviewee #</u>	<u>Gender</u>	<u>Years of Experience in Education</u>	<u>Previous experiences</u>	<u>Role at the time of this study</u>
1	F	37	General and special education teacher	University faculty/researcher
2	M	36	General education teacher, school psychologist	University faculty/researcher
3	M	50	Special education teacher	University faculty/researcher
4	M	48	General and special education teacher	University faculty/researcher
5	F	21	School psychologist	Educational researcher, consultant
6	F	26	General and special education teacher, school administrator	University faculty/researcher
7	M	50	School psychologist, learning specialist, state special education director, educational consultant	Education center director
8	M	18	School psychologist, special education teacher	University faculty/researcher
9	M	38	Special education teacher	University faculty/researcher
10	F	15	General and special education teacher	Educational researcher, consultant
11	M	26	School psychologist	University faculty/researcher
12	F	25	Special education teacher	University faculty/researcher

Each interview was conducted during a weekday either late morning or early afternoon. The researcher began the interview with a greeting and thanked the educator for participating. The researcher then commented about the audio recording of the conversation, attained each participant's agreement, and described the interview format that each scripted question (see next paragraph) would pose; follow-up questions and topics could then be added as the conversation continued.

## *Perspectives on Response to Intervention*

Semi-structured questions guided the researcher's conversations with participants: 1) Describe your background/experience in education; 2) What is your current role/responsibilities; 3) In what contexts have you experienced/researched RTI's being implemented in public schools; 4) What have you concluded from this about how RTI should be implemented; 5) Should RTI include the use of technology; 6) How do you think each of the following will impact RTI in the near/long-term future (e.g., use of IQ/achievement discrepancy, Common core/Smarter Balance/PARCC, reauthorization of ESEA/NCLB/IDEA); 7) Do you think RTI should include more money/funding for schools, or is RTI more so a perspective and set of practices; and 8) How do you think RTI will evolve in the next 5-10 years? These questions offered a means to begin the dialogue about each subtopic. The author could follow-up with more questions to prod each interviewee's thinking in the course of a natural conversation.

Interviews were conducted from January to June, 2014. They were conducted during late morning or early afternoon, via phone/Skype audio and digitally recorded. Interviews ranged from 18 to 56 minutes, with a mean of 34 minutes. Each interviewee received an identifying number (e.g., Interviewee 1 would be "I1" etc.). Audio files were uploaded to a cloud drive account owned by the transcriptionist, who had signed a confidentiality agreement. Once the transcriptionist emailed the WORD file to the researcher, the researcher edited the interview into clear and connected text. The researcher then emailed each interviewee her or his transcription for review and feedback. If the researcher received no response from the interviewee within 14 days, it was considered as interviewee-approved.

Although the researcher reviewed the data while interviewing each participant, he later applied a more in-depth, five-step framework analysis approach (Hruschka, Schwartz, St. John, Picone-Decaro, Jenkins, & Carey, 2004; Ritchie & Spencer, 1994; Rubin & Rubin, 1995; Silverman, 2000):

- 1. Familiarization with the data.** The author read all 12 transcripts in analysis-ready form multiple times to become familiar with the content, made notes, and created initial categories.
- 2. Coding to identify a thematic framework.** The author coded key themes, concepts, and ideas from each page into categories as well as overarching sub-themes. For each portion of text (e.g., words, sentences, paragraphs, responses), the researcher decided whether a specific code was present.

Table 2. Examples of Coding Interview Data

<u>Coding labels</u>	<u>Sample Quotes</u>	<u>Notes and Ideas</u>
Technology, assessment	“There is a requirement that the school meet regularly and frequently to discuss the data so as to decide what should be done next with kids. When a district chooses to have one platform for the use of technology that works really well, when they allow site-based decision making, you are going to produce a positive school climate” (17)	Data-based decision making, technology and a concise, widely understood process promotes teachers’ involvement and students’ success
Feedback about fidelity of implementation, instructional programming	“What works, of course, is performance feedback. Places that really want to use RTI, or any change process, need to define what that will look like when it is correctly implemented. And I do not mean in a “Big Brother” punitive way but just in a way that people can say, “Yes, it occurred,” or, “No, it didn’t occur,” and any changes to how it will be implemented are, you know, navigated, negotiated, and put in an agreed upon form that everybody can support” (15).	Feedback to RTI instructional team members helps promote buy-in and implementation. Instructional programming needs to be a collaborative and collectively-understood process.
Technology, assessment drives instruction	“RTI should include the use of technology. I think almost invariably the progress monitoring data is done in Excel or something similar. I see the real tipping point being with the 46 or so states using the common core standards. If they use that test, how will they interpret scores, which are going to be computer based. Will they use that information for RTI? I think there is going to be a lot of confusion about the interim assessments aligned to the common core...” (13)	Technology tools help in a variety of ways such as maintaining data systems, a format for assessment, and a means to analyze students’ skills. Common Core and its companion tests will pose a challenge.
Funding. School resources. Professional development.	“There are a lot of schools that are dramatically underfunded. RTI is not likely to take root for this reason, nor are many other necessary reforms due to such underfunding. That said, I don’t think that a reasonable, modest RTI model can be implemented without a lot of additional money.” (12)	Education is a huge task given the many children it aims to serve. This requires substantial funding—an increase from present levels.

3. **Indexing.** After reviewing the transcripts to create the codes, the researcher analyzed his notes while cross-referencing back to the research questions to ensure the codes captured the participants’ ideas.
4. **Charting.** The researcher summarized the data into a matrix for each theme by having a row for selected data from each participant, noting key ideas and/or illustrative example quotes, and using participants’ verbatim keywords to correspond to the coded themes.
5. **Mapping and interpretation.** The researcher reviewed the matrix within and across participants to begin the interpretation of the data and to develop coherent themes and possible explanations of interviewees’ comments and ideas. From the professional literature, the author associated concepts and practices to establish triangulation with the research questions and interview data.

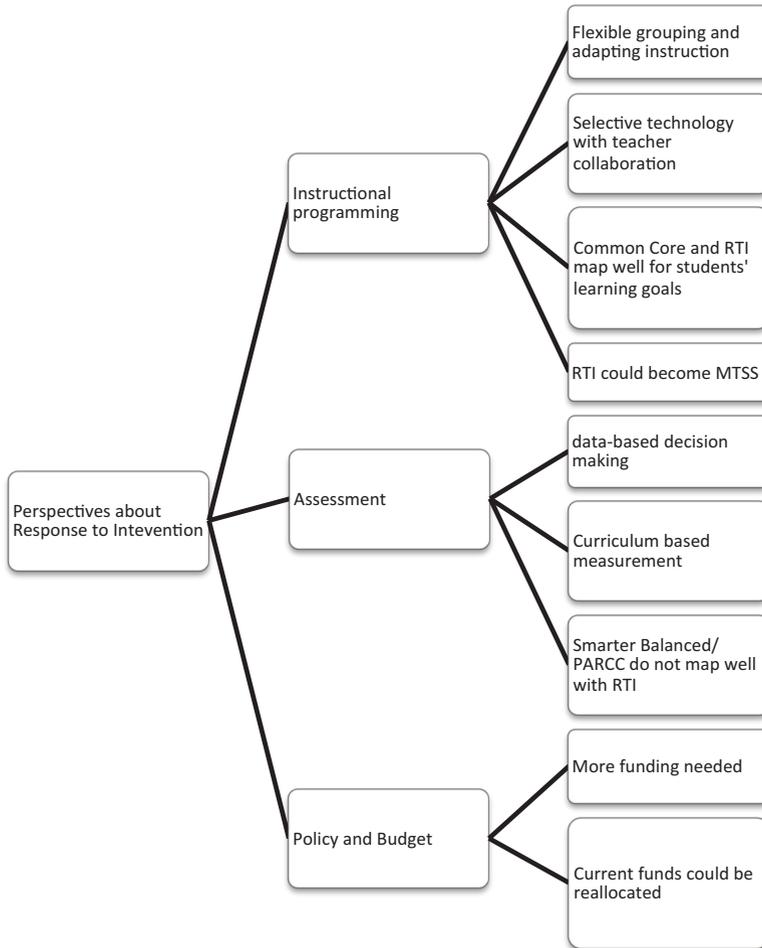
The validity of the analysis stems from the thick and rich description of the interviewees' RTI concepts and practices as presented in their data. Reliability of the data analysis was addressed by its transparency (e.g., as described in the above list), consistency-coherence (e.g., analyzing and reporting inconsistencies in the data or an interviewee's comments as compared to others), and communicability (e.g., writing the data analysis to help the reader visualize the realness of the topic) (Rubin & Rubin, 1995). In addition, a qualitative researcher outside of this study, but well versed on RTI, reviewed the data as well as the summary of the author's analysis, and agreed with the concluding themes, sub-themes, and categories. As an outcome of this process, the researcher generated a hierarchical diagram of key themes to guide the reporting of the data, as presented later in the next section.

## **Results**

Participants identified three key themes for schools within a district to design and implement response to intervention (RTI): instructional programming; assessment; as well as policy and budget. According to participants, a school's RTI design should be simple and concise so as to reflect *a multi-tiered system of supports (MTSS)*—academics as well as behavior. Through the concept of flexible grouping (e.g., whole class, small group, and individual instruction at different points during a lesson), teachers can address the various ability levels amongst students. Technology needs to be efficient in its purpose and paired with teacher collaboration. To monitor students' changes in skills over time, teachers can use curriculum based measurement data, which many interviewees affirmed as aligning well with SBAC and PARCC. Through professional development and access to updated materials, educators should review educational practices and discontinue those to be found as ineffective; also, district, state, and the federal government need to provide more funding to help educators apply RTI practices.

The themes and sub-themes resulting from the data analysis are depicted in Figure 1.

Figure 1: Key Themes from Participants' Data



Participants described a series of aspects to promote positive design and implementation of RTI. The results of the data analysis will be presented in reference to the research questions.

**Question 1: What have interviewees (RTI advocates/researchers) learned about instruction and assessment?**

Response to intervention (RTI) is a multi-faceted framework. Educators have the choice of how to design RTI that has rendered researchers preferring the more standardized standard- protocol format whereas teachers prefer the problem-solving model (I2). Yet, all interviewees affirmed a number of core RTI elements. For example, 14 commented:

RTI should include universal screening (curriculum-based measurement), employing evidence-based practices, implementing them with fidelity, regular progress monitoring, and having in place a system of tiered interventions to support children. All of those are essential. It is absolutely essential to have ongoing professional development and supports for the staff. Successfully implementing RTI puts you into a different role as an educator. If you do not embrace that role, and it is not a part of your values system, those things lead to the rejection of a particular practice.

Furthermore, educators should start the discussion about RTI design at the district level, with site (i.e., school) decision-making authority regarding student data and/or certain RTI components (e.g., timelines for interventions). RTI should be one of just two or three district initiatives in a given year; braiding initiatives together can be even more effective (I9). It is best to frame RTI's discussion and processes in a multi-tiered system of supports (MTSS)—academics and behavior. RTI's tiered processes should be few and succinct to promote collective understanding across a school/district. Districts need to provide professional development to teachers to promote their understanding of the rationale and components of RTI for use in classroom instruction and assessment processes.

In Tier 1, the district and state educational administrators need to provide general education teachers with instructional support personnel (e.g., designated teachers) whose prime purpose is to participate in intervention design, teaching, and assessment [I7]; funding for these full-time equivalents (FEE) could come from a reconfiguration of current budgets and/or an increase in financing for schools (e.g., I2). Teachers should have students in general education classes complete universal screenings three times per year. These students need a more intensive (second) tier of instruction (e.g., smaller instructional groups, more time per day). No interviewee suggested that paraprofessionals be intervention providers.

All interviewees affirmed that in Tier 2, where students may persist in having a dual discrepancy (i.e., low ability and little or no progress over time), teachers should provide tiered intervention programming in increasing levels of intensity with progress monitoring data every 1-2 weeks. An intervention-design team (e.g., school psychologist, speech and language pathologist, special education teacher, an administrator, and a general education teacher) should include technology as part of instructional design but in limited ways. The student's general education teacher needs to be part of the intervention-instruction process too. For the progress-monitoring data to be added to student assessment records, each school should designate a person to be the data manager. All teachers should have familiarity

and access to this database. If at all, intervention-design teams should only include the use of IQ tests for diagnostic purposes—not as a prime determinant of special education classification. A special education teacher(s) needs to be part of a school team and only participate in the delivery of instruction and assessment at the most intensive portion of the RTI-tiered system (e.g., Tier 3 of a tri-tier model).

Tier 3 options, as offered by interviewees, included components such as: more- intensive intervention (e.g., even more time or a smaller group, 12) than Tier 2; cognitive-skills (e.g., memory, attention) intervention activities; a timeframe for diagnostic assessment; progress- monitoring data review and consideration for special education placement; or the beginning of special education programming. While interviewees agreed that data based decision making was the operative means to decide special education placement, no single exact definition was possible for all students. Each student’s case should be considered for its own strengths and weaknesses.

All interviewees stated that RTI’s implementation has been positive for addressing students’ needs, as the framework offers teachers a means to manage assessment data and intervention programming. Teachers now use data to guide instructional decisions (Gersten et al., 2008; I3). With the tiers, teachers have instructional flexibility to provide more needy students with the attention that they should have. “Too often we think that there is basic education and then there is special education. RTI says no; there are multiple levels of intensity and you do not need to go to the expense of an individualized plan with many kids who are struggling” (Gresham, 2002; I9). Curriculum manuals and worksheets should not drive programming; students’ progress-monitoring data with intervention programming should.

**Question 2: What do interviewees believe the role of technology should be within RTI?**

Interviewees affirmed that technology can be part of RTI processes. I9 expressed that technology has potential:

Every educational endeavor in the 21st century should include technology but only to the extent that technology improves efficiency and effectiveness. A huge amount of technology that is currently in education is fluff (e.g., tablet apps that have colorful imagery but lack evidence of being research/evidence based), decreases efficiency, and has minimal improvement effectiveness. We need to become more knowledgeable about how we can actually use technology to create dynamic, instructional situations. We can use technology to help students become self-guided learners. We can use technology to assist the efficiency with which teachers

can identify early students who are struggling and can adapt efficiently for students to improve. Technology is going to be a phenomenal boom. I do not think RTI by itself makes technology more or less necessary but learning how to use technology to improve both efficiency and effectiveness in education is one of the major challenges facing education today.

I3 agreed that technology can be an integral part of intervention programming, but as a blend with teacher interaction.

I think the general feeling in technology now, and this is also including online courses, is that you need something that is blended. It should not be computer only. There needs to be some more human interaction. I think, for example, if we move into more complex interim assessments, it is very likely, and it is important for teachers to be able to talk through and work with their grade level team in terms of what the data mean. In terms of providing instruction to students for some things, I think it could be technology-only for building math facts, fluency possibly—certain types of repetitive drill and exercises that go on with phonics and phonics rules, for example. Definitely for independent reading and comprehension there would be great advantages to technology, but then there needs to be some blending.

What the interview data indicate here is that while technology is a key aspect of RTI, it should not be a tier's sole component.

### **Question 3: How do interviewees view the role of IQ within RTI?**

A foundational rationale for RTI's creation and application with students focuses on assessment. Due to ethical issues with standardized tests (e.g., IQ), interviewees encouraged school teams to use curriculum-based measures with students so as to better define how students are progressing with typical classroom activities. I9 commented:

I think the old construct of IQ is becoming less helpful as a guide and less necessary in terms of identifying behavioral or academic deficits. I am much more impressed with curriculum-based measures and real-time progress monitoring. We use Dynamic Indicators of Basic Early Literacy Skills (DIBELS, 6<sup>th</sup> edition; University of Oregon Center on Teaching and Learning, 2016), or Curriculum Based Measurement scores (easyCBM; National Center on Student Progress Monitoring, 2003-2008), much more effectively to guide instruction in literacy than we use IQ or traditional achievement discrepancy.

Ill described how CBM assessment data can map onto intervention planning:

CBM will almost exclusively be used to monitor progress. We will hopefully see a more universally-implemented diagnostic system where we identify what kids need and deliver interventions to address those needs rather than simply pulling an intervention off the shelf. I think those things actually have to happen for this to be sustainable.

Many interviewees did not feel that the Smarter Balanced (SB; Smarter Balanced Assessment Consortium, University of California at Los Angeles Graduate School of Education and Information Studies, 2015) and Partnership for Assessment of Readiness for College and Careers (PARCC; Pearson, 1998-2015) assessments align well with RTI's CBM (Deno, 2003) framework (I3): "Will these tests help educators define to whom they provide interventions and how they do it? Will they be reliable? Valid? Will there be someone to explain differences between SB/PARCC and RTI's CBMs?" The purposes of the two assessments are different. SB/PARCC are a type of general outcome measure meant to assess students' skills. CBM is a formative-type assessment to explore a student's skill set and ability for a specific skill such as oral reading fluency or math addition.

**Question 4: What do interviewees suggest about RTI requiring additional funding for school implementation?**

Interviewees had mixed feelings about "more" money being needed for a district's creation, implementation, and sustainment of RTI. "There are a lot of schools that are dramatically underfunded. RTI is not likely to take root for this reason, nor are many other necessary reforms due to such underfunding. That said, I do not think that a reasonable, modest RTI model can be implemented without a lot of additional money" (I2). Other interviewees expressed the opposite opinion. To be effective, ESSA (Every Student Succeeds Act, 2015) would require current monies being spent on programs and practices that are not deemed as research/evidence based to be reallocated to those that are. I9 commented:

I am really humbled by a US Department of Education (2005) 1980-2007 graph indicating a mammoth increase in funding going into education with almost no increase in the proportion of kids who were meeting standardized reading expectations. So, we unwisely invested a lot of resources. If we really want to achieve the effectiveness and equity goals that we have identified for education in the United States, it is going to take more money. If we use more money exactly the same way that we used to use it, we will get no

better effects and it will be a functional waste. I think the nation and districts should have an expectation that we will use the money differently. One, we will use the money to deliver practices that are evidence-based. Two, I think we will become much more skilled at the use of technology, both for instruction and for organization. And three, I think we have got to do a much better job at making education a community activity that more actively engages and defines the responsibilities of students and families as well as faculties.

I4 said: “If you think of RTI on a system-wide basis, beyond the school but within a district, in which a district fully embraces this as, ‘This is the way we do business; this is a high priority,’ then you may not need additional money.”

Another perspective was that funding may need to be increased if the scope (e.g., assessment criteria, number of students per group) were larger for RTI implementation and sustainment.

When working with just the lowest three students per classroom, schools should be able to manage RTI; but when they are using the standard protocol kinds of cut points on national measures, 40% to 50% of students fall below that cut point. In that context, the school’s efforts really need to go into a better-organized Tier 1, which educators often have much difficulty in managing (I1).

Educators require funding for instruction and assessment, but it is also important that budgets be spent on materials that reflect research/evidence-based practices.

**Question 5: What do interviewees suggest as the next iteration of RTI in terms of design and public policy (e.g., reauthorizations of NCLB, IDEiA)?**

All interviewees expressed that the components of the next reauthorization of IDEiA (2004) were difficult to predict. Three interviewees commented that it would be likely that RTI would become MTSS (i.e., not only a focus on academics, but behavior too) and be incorporated into IDEiA and likely NCLB as well. This policy change would offer pre-service teachers the means to learn MTSS concepts and practices throughout their coursework.

If teacher preparation programs got more on board, this could have a real impact. I understand that academic freedom is so important and professors want to teach what they know and what they study, but it would be best to be more systematic about the skill sets

and the tools that all teachers will have at the end of a teacher preparation program to make teachers ready to assist all learners (I5).

In terms of next steps, interviewees offered a series of ideas that could help schools frame and refine their design of RTI processes. RTI needs to begin at the district level (I8):

In my local area, we have spent two years building the capacity of the district leadership team, which needs to be representative, not housed within one silo within a district. For example, sometimes RTI is housed within special education within a school district. We have broadened the concept to: "... a shared approach. We are all in on this together. It is one system of supports. This is something that we are all part of because it is for all kids."

The district needs to have personnel with expertise and knowledge of RTI processes to manage the system. For example, school teams should have knowledge of curricula and evaluation tools to determine what is, or represents, research/evidence based programming. RTI components should be clearly defined (I5):

The most common errors that I have seen are when the RTI model is too loosely defined and has not been operationalized enough so that all constituents understand when it has occurred and when it has not occurred. When people talk about RTI as simply a cut score and then those kids get a version of Tier 2 that looks like a 30-minute repeat of what happened in class or an add-on that comes from the publisher, that is not sufficiently operationalized to allow for a feedback cycle to the implementers so they can see which pieces are working and serving them in their context and which ones need to be adjusted. I think another common error is over-emphasizing intervention selection and under-emphasizing intervention management. Most interventions fail because they simply do not get implemented well or implemented correctly.

Districts also need to choose a manageable number of initiatives as a focus for each school year, and those chosen should align well with RTI's processes given its foundational role for academic and behavioral programming. A well-understood system will facilitate the sustaining of momentum for teachers to continue application of RTI's practices. Teachers should design and implement general education programming in a manner that makes small-group intervention manageable (I6). Time blocks for core subject areas should be apportioned for whole-class, small group, and even individualized instruction with the teacher, if needed. Universal design for learning (CAST, 2015) offers practical ways for students to access the tools

that they need to promote their academic and behavioral success.

To further address students' academic and behavioral needs, many interviewees advocated for RTI to be re-conceptualized as Multi-Tiered System of Supports (MTSS). "Calling response to intervention (RTI) and positive behavior intervention supports (PBIS) as MTSS is more comprehensive and broader. It is social emotional learning, which is PBIS" (I8).

(I9) described a literacy example:

One of the features of RTI is it basically gets away from little tiny interventions and starts focusing on integrated, comprehensive packages of intervention that are evidence-based and that produce not just shoe-tying or phonemic segmentation, but they actually produce the social skills to be socially networked within an educational community. They actually produce the literacy skills that allow you to read with comprehension and development. So, RTI initiatives require integrated packages of interventions. That brings us back to the question, "to what extent do we actually have evidence that we have organized structures that are both contextually appropriate and generated to deliver the level of intensity that will produce math, reading, writing, science, education, self-regulation and social emotional outcomes?"

Many aspects of school impact academic learning and ability. A more holistic perspective and approach to educational planning and instruction will better promote student achievement and college/career readiness, as stated in the Common Core. As part of this RTI-to-MTSS shift, general educators will have more of the prime role in MTSS's processes.

## **Discussion**

This qualitative study discusses the elements of RTI that 12 experienced educators think the model should encompass. Research questions focused on IQ's role in identifying students for special education services, technology as a part of intervention programming, and possible next steps for RTI given what we know and the upcoming reauthorizations of Individuals with Disabilities Education improvement Act (IDEiA) and No Child Left Behind (NCLB) Act (now Every Student Succeeds Act [ESSA], 2015). The design employed qualitative interview methods with semi-structured interview questions. To analyze the data, the author applied an in-depth, five-step framework analysis approach (Ritchie & Spencer, 1994; Rubin & Rubin, 1995; Silverman, 2000). The research questions elicited respondents' RTI perspectives about instruction, assessment, technology, IQ, funding, and federal legislation. In the results, participants identified

three key themes for schools within a district to design and implement response to intervention (RTI): instructional programming; assessment; as well as policy and budget.

As for study conclusions, participants affirmed that RTI represents best practice for intervention and assessment for learning disability classification especially when comparing these practices with the IQ discrepancy model for special education service identification, the importance of funding for RTI implementation, the role of technology as part of programming and assessment, and the inclusion of general educators as part of the intervention and assessment processes. This study fills an important gap in the literature, offering a collective set of ideas and options for further refinement of the RTI paradigm and suggests aspects of practice for future research.

### **Implications for Practice**

This study provides insights for the education of students with learning disabilities in at least three ways. First, there is no other known study that explores educational researchers' reflective opinions about RTI at this 35-year milestone. The results of this study add to the existing literature by documenting experienced practitioner perspectives that RTI provides for effective early identification and focused intervention for students with a possible learning disability. By discontinuing the emphasis on IQ for assessment and placement, educators can employ curriculum-based measurement (CBM) as an alternative and manage universal screening and progress monitoring as early as kindergarten.

Second, with the growing focus on digital learning in education (e.g., Common Core State Standards; NGA, 2010), the results of this study offer educational researchers' insights as to how technology should be employed with children during intervention programming. There needs to be multiple tiers of intervention intensity for children that incorporate digital strategies and tools that promote both academic and behavioral improvement.

Third, government agencies need to support educators by providing funding for initiatives such as RTI, which impact the largest portion of students in special education, those with a learning disability (US Department of Education, 2014). Teachers can discuss and change classroom practices through collegial dialogue, but the need and rationale that promote teachers' buy-in to engage in effective RTI intervention often require time and resources for professional development opportunities at the micro classroom level. Funding alone may not provide for meaningful change, but providing educators with the time to discuss and review resources, materials and strategies at the classroom level may lead to changes in opinions and prac-

tices that better promote students' needs and improvement. Through meaningful professional development, general and special educators can better implement teamed approaches to intervention.

### **Limitations and Implications for Future Research**

The processes of this interview research on response to intervention (RTI) rendered limitations of the findings and generalizability of the study, which offer ideas for future research. First, RTI is a conceptual paradigm. There is no single, widely-accepted definition, or even a few agreed-upon definitions, of what constitutes RTI. Each interviewee (and the researcher) in this study had his or her own definition of the paradigm, which was likely to be highly similar, but surely not identical. Participants' comments and intended meanings could have been misinterpreted in the process of conversation with the researcher and in the analysis of the data (e.g., instrumentation effects).

A future study could offer interviewees with a description of a generic RTI model; participants could then suggest changes based on their research experiences, describe perspectives about the components and emergent next steps. In a quantitative study, respondents could read a concise RTI description. For each tier, respondents could state their level of agreement with provided descriptions such as assessment, instruction/intervention programming, use of technology, type of instructor (e.g., certified teacher, paraprofessional), instructional team collaboration, and group size, as well as daily minutes allotted.

A second limitation of this study is that qualitative methods (as with quantitative) offer many variations. The semi-structured interview format provided a means to interact with a small number of experienced interviewees and explore their thinking about RTI components and future directions. Participants were purposefully selected, therefore, non-random selection could make the data less reflective of the general population. The chosen participants varied in concurrent experiences during data collection (e.g., history effects) as well as perspectives about RTI. Furthermore, the progression through the interview questions could alter opinions as compared to what interviewees may feel about each subject (e.g., a type of maturation effect).

In a future study, a researcher could observe and review documents of a school or district's RTI model as well as teachers' instruction, intervention, and assessment practices. Districts and schools often have a professional handbook in which procedures and policies are described. The researcher could arrange to visit classrooms to see teachers and students interact and later review assessment data records. Professional development

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practices geared toward improving the quality of RTI services provided could be studied as well. Teacher interviews could then offer RTI practitioners an opportunity to describe their understanding of RTI in their school and offer their feedback about how it could be improved or what additional resources they would find helpful.

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**“I’m the One with the Child with a Disability:”  
Head Start Teachers’ Perspectives on  
Inclusive Education**

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*While a large body of research indicates that inclusive preschool education provides important benefits for children with and without disabilities, barriers to effective inclusion in preschool settings such as Head Start classrooms continue to persist. Although a large number of preschool-age children with disabilities are served in Head Start settings, with general education teachers tasked with including them in their classrooms, little research examines Head Start teachers’ perceptions about inclusion. In this study, interviews were conducted with 21 Head Start teachers’ regarding their needs and available supports to include children with disabilities in their classrooms. Qualitative analyses indicated that the teachers perceived the factors of attitudes toward inclusion; families; and teacher knowledge, skills, and practices as inclusion barriers. They considered the factors of classroom environment, materials, resources, and personnel and professional development to be inclusion facilitators. The participants reflected on a classroom-based inclusion framework in which they were responsible for implementing specific strategies to promote high quality inclusion based on a range of factors.*

*KeyWords: Preschool teachers, inclusion, young children with disabilities*

As a result of national policies in the United States to ensure equal opportunities for people with disabilities, many children with disabilities participate in some form of inclusion (DEC/NAEYC, 2009; Michaud & Scruggs, 2012). Inclusion of children with disabilities in general education

settings is also an increasingly common worldwide trend (Lee, Yeung, Tracey, & Barker, 2015). Inclusion is a philosophy and practice that supports the rights of all children, regardless of their abilities, to participate in everyday activities within their communities (Osgood, 2005; Noonan & McCormick, 2014). The inclusion of individuals with disabilities is supported by legal mandate (e.g., IDEA, the Individuals with Disabilities Education Act, 2004), increasing societal acceptance of ability diversity, and research affirming the benefits of fully inclusive settings for children with and without disabilities (Buysse, 2012; NPDCI, 2009; Odom, Buysse, & Soukakou, 2011).

For young children with disabilities, inclusion means engaging with their peers who do not have disabilities in inclusive early childhood settings, such as in Head Start classrooms. The Head Start program is a federally funded preschool program for 3- to 5-year-old children from families with low incomes. The Head Start program has a long history of serving children with disabilities regardless of their families' economic standing (Barton, Spiker, & Williamson, 2012; Soukakou, Winton, West, Sideris, & Rucker, 2014) and has provided inclusive services for children with disabilities since its inception in 1965 (Schwartz & Brand, 2001). Congress first codified the requirements that each Head Start program must reserve at least 10% of their slots for children with disabilities in 1972 (Zigler & Styfco, 2010). The efforts to recruit and enroll eligible children with disabilities in Head Start expanded with the federal mandate that no less than 10% of children that each Head Start program serves are comprised of children with disabilities as evidenced in program reporting (Ewen & Neas, 2005; Improving Head Start Readiness Act, 2007). In the 2013–2014 program year, 12.2% of children enrolled in the Head Start program qualified for special education services (Office of Head Start, 2015). In the United States, approximately six percent of preschool-age children have identified disabilities. Therefore, the Head Start program serves a significantly higher percentage of children with disabilities than the percentage of children with disabilities in the national population (Office of Head Start, 2016). Additionally, a significant percentage, 19.1%, of all preschool-age children who received inclusive special education services, were served in Head Start classrooms in 2013 (U.S. Department of Education, 2014).

Coupled with Head Start's longstanding commitment to early childhood inclusion, the fact that nearly one in five preschoolers with disabilities who receives inclusive services are fully or partially included in Head Start classrooms underscores the vital role Head Start plays with respect to inclusion. However, despite the significant role of the Head Start program in inclusive preschool education (Muccio, Kidd, White, & Burns, 2014; Yan

& Sin, 2014), there are few research studies that examine inclusion in Head Start classrooms (Gallagher & Lambert, 2006; Macy & Bagnato, 2010; Purcell, Horn, & Palmer, 2007). Concerns regarding meeting the needs of children with disabilities in inclusive preschool settings (e.g., Guralnick & Bruder, 2016) and in Head Start classrooms specifically (e.g., Lee, Calkins, & Shin, 2015) persist. At the same time, early childhood research, and particularly research in the Head Start program, rarely incorporates the perspectives and voices of teachers (Bullough, 2015; Stremmel, 2007). The confluence of these factors provides a strong imperative for Head Start inclusion research. To fulfill their stated mission for young children with disabilities to be full and active participants in their Head Start classrooms (Head Start Center for Inclusion, n.d.), inclusion research in these settings is warranted. Researchers must explore the perceptions of the teachers tasked with implementing inclusion to close the gap between preschool inclusion research and practice (Barton & Smith, 2015).

As with many educational practices, inclusion is complex, influenced by a variety of factors, and presents itself in unique ways in different inclusive settings (Muccio, 2012). The ecological systems theory proposed by Bronfenbrenner (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998) provides the conceptual framework for this study. The model provides a lens through which to examine the relationships between people and societal systems, and the many dynamic sets of factors that interact to influence Head Start inclusion. Within an ecological systems model, children (the biosystem) develop and learn within five nested interconnected systems: 1) the microsystem (parents and siblings), 2) the mesosystem (peers and school), 3) the exosystem (community connection), 4) the macrosystem (cultural influence and policies) and the 5) chronosystem (changes in systems level variables over time). A child with disabilities in an inclusive Head Start classroom, as well as her/his teachers, are embedded within the interrelated systems of families, classrooms, external supports, policies, mandates and societal influences. Prominent early childhood inclusion researchers have relied on the model to guide their research (e.g., Chang, Early, & Winton, 2005; Hughes-Scholes, Gatt, Davis, Mahar, & Gavidia-Payne, 2016; Odom, 2002) and also as a framework for reviews of the literature and the field of early childhood inclusion (e.g., Gurlanick & Bruder, 2016; Odom, Buysee, & Soukakou, 2011; Odom, et al., 2004; Xu & Filler, 2008).

## **Literature Review**

A substantial segment of inclusion research investigated teachers' perceptions of the inclusion of children with disabilities in a variety of educational settings (e.g., Kraska & Boyle, 2014; Nguyen & Hughes, 2012).

Kraska and Boyle's research aligned with the larger body of inclusion attitudes research, and indicated that teachers (either preservice or inservice teachers) generally demonstrated favorable views of including children with disabilities in general education settings and shared a positive perception of their own abilities to include children with disabilities. Researchers have demonstrated that there can be positive relationships between teachers' attitudes and their behavior. Leatherman and Niemeyer (2005), and Mitchell and Hedge (2007), identified a connection between attitudes and practices of teachers in early childhood inclusive classrooms. Results from these studies indicated that positive experiences in inclusive preschool classrooms can be associated with teachers' perspectives of inclusion and their knowledge of, and comfort with, working with students with disabilities. Additionally, there was a positive relationship between teachers with positive attitudes and beliefs, and their positive inclusive practices (e.g., addressing children's individual needs, facilitating family involvement, and involving children with and without disabilities in all aspects of classroom activities). These findings suggested that the teachers' experiences, attitudes, and practices can be consistent.

In contrast, Bruns and Mogharreban (2007) and Nguyen and Hughes (2012) found that teachers' perceptions were not always consistent with their practices. Bruns and Mogharreban examined the inclusive beliefs and practices of Head Start and public prekindergarten teachers. Participants overwhelmingly expressed the belief that all young children can learn, and that children with disabilities should receive services alongside peers who do not have disabilities. In terms of differences among the groups, prekindergarten teachers reported a greater awareness of related service providers and reported more positive attitudes about their ability to work with these professionals than the Head Start teachers who participated in the study. In self-evaluating the inclusive practices in their classrooms, participants reported that they believed they were less able to carry out specialized practices to facilitate high-quality inclusion, such as using forms of alternative communication or providing appropriate positioning for young children with motor impairments.

Nguyen and Hughes (2012) examined the inclusion attitudes of Head Start teachers, special education teachers, and parents in inclusive Head Start settings. Findings suggested that both teachers and parents expressed positive views about inclusion. Teachers and parents described academic, social, and emotional benefits of inclusion for children with disabilities. However, a positive relationship between attitudes and practices were not evident. An analysis identified that these classrooms lacked some components of high-quality inclusive programs. Therefore, simply supporting inclusion was not

associated with carrying out high-quality inclusion practices.

Studies reveal that inclusion is complex and challenging to implement (Buysse, 2012; Purcell, Horn, & Palmer, 2007). While attitudes or perceptions can be an influential factor, inclusion researchers have discovered a variety of other factors that seem to influence the inclusion of children with disabilities in general education settings. These factors are associated with different system levels, examining classroom level factors in the mesosystem such as instructional approaches or within the exosystem such as administrative influences. Inclusion researchers identified factors that facilitate inclusion and factors that serve as barriers. Inclusion facilitators are factors or categories of factors that support the implementation of high-quality inclusion for children with disabilities in the classroom. Inclusion barriers are factors or categories of factors that impede or inhibit the implementation of high-quality inclusion for children with disabilities in the classroom. Researchers have identified the following six factors: (1) *attitudes toward inclusion* (e.g., Kraska & Boyle, 2014; Nguyen & Hughes, 2012); (2) *families* (e.g., Epley, Summers, & Turnbull, 2011; Pang, 2010); (3) *classroom environment, resources, and personnel* (e.g., Bubpha, Erawan, & Saihong, 2012; Guo, Sawyer, Justice, & Kaderavek, 2013); (4) *professional development* (e.g., Baker-Ericzén, Mueggenborg, & Shea, 2009; Harvey, Yssel, Bauserman, & Merbler, 2010); (5) *teacher knowledge, skills, and practices* (e.g., Wiart, Kehler, Rempel, & Tough, 2014; Yan & Sin, 2014); and (6) *inclusive classroom quality* (e.g., Barton & Smith, 2015; Soukakou et al., 2014).

Researchers have identified not only a variety of factors that influence inclusion, but the importance of teachers' perceptions of inclusion as well. The present study builds on both bodies of research to examine the perceptions of Head Start teachers as related to the inclusion factor categories. Early childhood inclusion research is especially needed and well situated within the Head Start context. Bruns and Mogharreban (2008) described the impetus for additional studies of inclusion in Head Start when they asserted, "It is critical to examine inclusive beliefs, skills, training needs, and participant demographic characteristics of Head Start professionals" (p. 64).

The purpose of the present multiple case study (Yin, 2014) was to examine Head Start teachers' perspectives on their needs and available supports to include children with disabilities in their classrooms. *Supports* are defined as an available resource for promoting high quality inclusion. *Needs* are defined as an unavailable resource for promoting high quality inclusion. In addition, we examine how the teachers believe these supports and needs influence the quality of inclusive Head Start education. For the purposes of

this study, we define high-quality inclusion based on the DEC/NAEYC definition (2009) that focuses on the key characteristics of high quality inclusive experiences for infants, toddlers, and preschool-aged children with disabilities. In high quality inclusive classrooms, teachers are able to engage in practices to promote access, participation, and supports for children with disabilities in early childhood settings. Practices to promote access include removing physical barriers, providing a wide range of activities and environments, and making necessary adaptations to foster optimal development and learning for individual children. Practices to promote participation include using a range of instructional and intervention approaches to promote engagement in play and learning activities and a sense of belonging for every child. Practices that provide supports include creating an infrastructure of systems-level supports for implementing high quality inclusion (National Professional Development Center on Inclusion, 2011).

The following research questions guided the study:

1. What are Head Start teachers' identified needs and supports for high-quality inclusion of children with disabilities?
2. How are the inclusion factor categories evident in Head Start teachers' needs and supports?

## **Methodology Research Design**

The study reports the qualitative findings from a part of a larger mixed methods study (Muccio, 2012) and builds on the findings from a quantitative research study (Muccio, Kidd, White, & Burns, 2014) that examined the beliefs and practices of a larger group of Head Start teachers. For this study we used a multiple case study design (Yin, 2014) to examine the inclusion needs and supports of Head Start teachers within three sites and 11 classrooms. We selected the multiple case study design method to explore the phenomenon of inclusion of children with disabilities in the Head Start program within the distinct context of each classroom. Based on Thomas' (2011) classifications for multiple case studies, we implemented a nested case study design with inclusive Head Start classrooms as the principle unit of analysis. Our goal in implementing a nested multiple case study design was to develop an understanding of the inclusion of children with disabilities within the Head Start program based on integrating the particular aspects of each classroom and teachers' experiences into the broader picture (Starman, 2013). This design aligned with the theoretical framework guiding the study because both the ecological system theory (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998) and multiple case studies place an emphasis on the multiple layers of contextual factors and systems that influence a practice or phenomena such as inclusion.

## **Setting and Participants**

We carried out the research at three program sites (Sites A, B, and C) in the Mid-Atlantic region of the United States. We conducted interviews with 21 teachers in 11 Head Start classrooms. We use the term ‘teacher’ to signify all of the adults in the classroom who interact with the children on a consistent basis. We selected to use the term ‘teacher’ for all study participants rather than distinguishing between teachers and assistant teachers, because the roles, responsibilities, and relationships between the adults in the classrooms differed substantially across the three programs. All participants interacted with the children with disabilities in their classrooms and provided care and educational opportunities for the children. We used convenience sampling for the research sites and selective sampling to identify the study participants (Merriam & Tisdell, 2016). The teachers at the three sites were engaged in a professional development intervention targeting intentional teaching and reflective practices (see Nasser, Kidd, Burns, & Campbell, 2015).

Among this larger group of Head Start teachers, we focused, for the purposes of the study, on inclusive classrooms. We worked with the Head Start administrators at the three program sites to identify classrooms with at least one child with a diagnosed disability (the child had an IEP). At Site A, the administrators selected four classrooms because each classroom served at least one child with a disability. At Site B, the administrators solicited participation from the teachers who were serving children with disabilities in their classrooms and the teachers in three classrooms volunteered to participate. At Site C, the administrators selected the classroom officially labeled as the inclusion classroom (a classroom serving a high percentage of children with disabilities and those children with more severe disabilities) and then randomly selected three other classrooms that served children with disabilities.

Of the 21 participants, 11 teachers served in the lead teacher role. The others were referred to as a teacher 2, assistant teacher, or paraprofessional, depending on the site. There were seven teachers interviewed at each site. Twenty of the teachers were female, and one was male. Thirteen teachers were Black, seven were White, and one was Latina. They ranged in years of experience teaching in Head Start from less than one year to 37 years. Table 1 describes the teachers and their classrooms.

Table 1.

*Study Participants and Years of Experience*

Classroom	Number of Children with Disabilities	Teacher	Assistant Teacher
A1	1	Female Hispanic 10 years exp.	Male Black Less than 1 year
A2	4	Female Black 1.5 years exp.	0
A3		Female Black 37 years exp.	Female Black Less than 1 year exp.
A4	2	Female Black 6 years exp.	Female Black 3.5 years exp.
B1	2	Female Black 10 years exp.	Female Black 3 years exp.
B2	3	Female Black 4 years exp.	Female Black 7 years exp.
B3	2	Female Black Information not provided	2 Both female Both black 20 years and less than 1 year exp.
C1 * Reverse inclusion classroom with mostly children with disabilities and a smaller group of children without disabilities	9	1 Female White 8 years exp.	1 Female White 8 years exp.
C2 *	2	1 Female White 22 years exp.	1 Female White 10 years exp.
C3	2	1 Female White Less than 1 year exp.	1 Female White 9 years exp.
C4	2	1 Female White 13 years exp.	0

\*These participants were interviewed together.

## **Data Collection**

The first author conducted the data collection and analysis, with support from the second author. Once the 11 classrooms were identified, participants at each site met with the first author to discuss the study, set up a schedule for the interview, provide their consent to participate in this portion of the research study, and receive the parent consent forms that they distributed to, and collected from, the parents of the child or children with disabilities in their classrooms. Parental consent was provided so that the teachers could disclose the disability category and special education services received by their child to the interviewer. The interviews took place during naptime or after school over a two-month period, and were conducted face-to-face with each teacher in his or her classroom or in the teachers' lounge. Interviews lasted an average of 30 minutes, and we recorded and transcribed them. In two instances, both of the teachers in the classroom elected to be interviewed together. All other interviews were one-on-one.

Nineteen total interviews were conducted. Before the study began, the interview protocol was piloted with three Head Start teachers who also had children with disabilities in their classrooms (but were not teaching in any of the three sites) as well as an early childhood special education teacher. Interview questions focused on teachers' experiences as inclusive educators in Head Start settings related to the inclusion factors, and how they constructed Head Start inclusion through the lens of inclusion needs and supports. For example, we asked, "what kinds of experiences have you had with children with IEPs in your classroom?" and "what supports do you have for the children in the classroom with IEPs?" Appendix A includes the interview questions in the semi-structured interview protocol.

## **Data Analysis**

We transcribed teacher interviews verbatim. To analyze the data, we began with a deductive coding strategy of directed content analysis based on the extant inclusion factor categories (Merriam & Tisdell, 2016), and built upon this analysis with an inductive coding strategy to develop sub-categories. By relying on the theoretical propositions of the study to guide analytical priorities (Yin, 2014), we began with existing codes for the analysis. We coded passages as *inclusion needs* when a teacher identified an inclusion factor that would be beneficial to have in his or her setting (e.g., how additional training about children with disabilities would be helpful). We coded passages as *inclusion supports* when a teacher identified an inclusion factor that was in place or that they had access to in his or her setting (e.g., existing training provided by the Head Start program). Once we

identified these passages and totaled the number of passages, we conducted further analysis using the inclusion factor categories as a form of deductive analysis. Our approach to using passage count percentages as a representation of qualitative data aligns with Maxwell's (2010) description of using numbers in qualitative research to add precision to the findings. We used both conventional and directed content analysis (Hsieh & Shannon, 2005). For the directed content analysis, we used the six categories of inclusion factors: (1) *attitudes toward inclusion*; (2) *families*; (3) *classroom environment, resources, and personnel*; (4) *professional development*; (5) *teacher knowledge, skills, and practices*; and (6) *inclusive classroom quality*.

We also used conventional content analysis to identify themes that did not fall into the inclusion factor categories (e.g., 'treat all children the same' and 'children learn acceptance of differences') in order to capture all of the ideas about inclusion needs and supports that the participants shared. We calculated passage counts for the inclusion factor categories for each interview and across the interviews. We divided the passage counts into inclusion needs and supports. In collaboration with a researcher who was not directly involved in the project, we achieved inter-rater reliability of 80% for inclusion needs and supports and the inclusion factors passage counts. We determined the most and least frequently identified needs and supports across the interviews and compared the needs and supports to identify inclusion facilitators and barriers. Within each of the categories, we identified subthemes using conventional coding. We cut and pasted the coded text for each inclusion factor category for needs and for supports into separate documents. We generated and compiled the codes for needs for each of the categories and for supports for each of the categories (see Appendix B). We condensed these codes into subthemes and applied these subthemes to the interview text. The subthemes helped to identify how these Head Start teachers constructed early childhood inclusion and their role in the inclusive classroom.

## Findings

### Research Question 1: Inclusion Needs and Supports

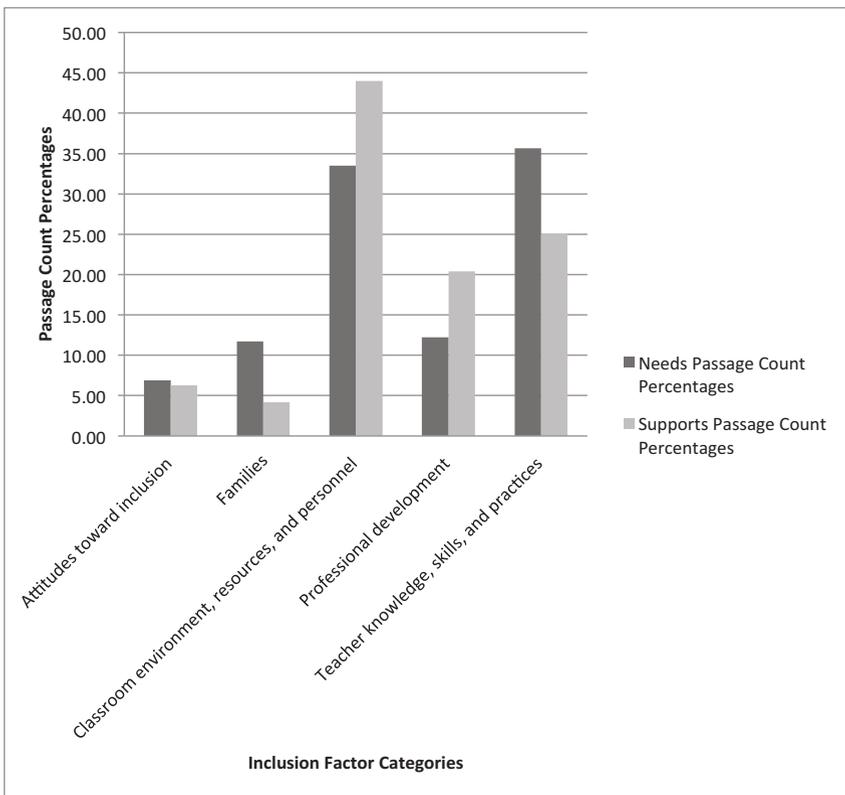
We describe the findings that address Research Question One: What are Head Start teachers' identified needs and supports for high-quality inclusion of children with disabilities? Across the interviews, there were 188 (50.4%) passages where the teachers identified inclusion needs and 191 (49.6%) passages where they discussed inclusion supports. The passage count percentages for the inclusion factor categories provided additional evidence of the teachers' inclusion perceptions. In terms of inclusion needs, the highest percentages of passages were in the categories of *teacher skills*,

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knowledge, and practices (35.6%) and classroom environment, resources, and personnel (33.5%). The lowest percentages were in the categories attitudes toward inclusion (6.9%) and families (11.7%), with no teacher mentioning inclusive classroom quality. In terms of perceived inclusion supports, the highest percentages of passages were in the categories of classroom environment, resources, and personnel (43.4%) and teacher skills, knowledge, and practices (25.1%). The lowest percentages of passages were in the category families (4.2%) and attitudes toward inclusion (6.3%) with no one mentioning inclusive classroom quality. Professional development ranked in the middle for both needs (12.2%) and supports (20.2%).

Figure 1 shows the differences in the inclusion needs and supports for the inclusion factor categories.

Figure 1. Passage count percentages of needs and supports by inclusion facilitator/barrier category.



The passage count percentages for the teachers' perceived needs were higher than teachers' perceived inclusion supports for three factors: *attitudes toward inclusion*; *families*; and *teacher knowledge, skills, and practices*. As such, the teachers believed these three factors were inclusion barriers. The passage count percentages for inclusion supports were higher than for inclusion needs for two categories: *classroom environment, materials, resources, and personnel* and *professional development*. Therefore, the teachers considered these factors to be inclusion facilitators. The greatest difference between needs and supports was 10.5% in the category of *teacher skills, knowledge, and practices*, followed by *families* at 7.51%, representing the factors that were the greatest barriers to high-quality inclusion based on participant perceptions. The smallest difference was 0.6% for the category *attitudes toward inclusion*. In two categories—*classroom environment, resources, and personnel* and *professional development*—the teachers' perceived supports were higher by 10.5% and 8.2%, respectively, than their perceived needs.

### **Research Question 2: Inclusion Factor Categories**

We describe the findings that address Research Question Two: How are the inclusion factor categories evident in Head Start teachers' needs and supports? A content analysis helped identify the themes within the teachers' discussions of inclusion needs and supports (see Table 2).

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Table 2.

### *Participants' Inclusion Needs and Supports Subthemes*

Attitudes toward inclusion	<ul style="list-style-type: none"><li>• Enjoyment/acceptance of teaching in an inclusive classroom</li><li>• High expectations/viewing children with disabilities as capable</li><li>• Acceptance of children's differences</li></ul>
Families	<ul style="list-style-type: none"><li>• Parent involvement/collaboration and relationships with families of children with disabilities</li><li>• Assistance/support for families of children with disabilities</li></ul>
Classroom environment, resources, and personnel	<ul style="list-style-type: none"><li>• Environment/resources—Low ratio of children with disabilities/distribute children with disabilities evenly across classrooms in the program</li><li>• Environment/resources—Quicker or more appropriate IEP identification process</li><li>• Personnel—Instructional professionals to support the children with disabilities</li><li>• Personnel—Collaboration with other instructional professionals</li></ul>
Professional development	<ul style="list-style-type: none"><li>• Professional development/resources provided by Head Start</li><li>• Professional development/resources outside of what is provided by Head Start</li></ul>
Teacher knowledge, skills, and practices	<ul style="list-style-type: none"><li>• Knowledge/skills—Knowledge of specific disabilities and of specific practices for children with disabilities</li><li>• Knowledge/skills—Knowledge of the child with disabilities as an individual</li><li>• Practices—Specific practices to meet the individual needs of children with disabilities</li><li>• Practices—Building relationships with the children with disabilities</li></ul>

In most instances, teachers identified an inclusion factor as both a need and as a support. Some teachers discussed how the factor was available in their setting (supports) and other teachers discussed how they did not have the factor in their setting or how it would be beneficial to have in their setting (needs). Examples of the subthemes within each inclusion factor category follow.

**Attitudes Toward Inclusion.** In the category of attitudes toward inclusion, teachers identified nearly equal needs and supports with slightly more needs than supports, therefore participants identified this inclusion factor as a very slight barrier. When teachers elaborated on the attitudes that contribute to high-quality inclusion, they discussed the importance of enjoying or accepting teaching in an inclusive classroom. For example, one teacher discussed how much she enjoys teaching children with disabilities when she shared, “Although it’s challenging, it is a very rewarding experience. Once you see that the children are meeting their goals and are exceeding their goals, it’s just something to be very proud of.” Other teachers similarly discussed their satisfaction with teaching children with disabilities in terms of the children’s progress in their classrooms, the ways in which the children with disabilities are accepted by the other children, and the value of providing early intervention services for the children’s positive learning and development. For instance, in her discussion of teaching in inclusive settings, one teacher stated, “...and so I feel that I [have] been doing this all these years and it something that is in my heart to do.” This teacher, like others, identified enjoyment of teaching children with disabilities as an important aspect of her perceived supports within the category of *attitudes toward inclusion*.

Along with the teachers’ perceptions of enjoyment and acceptance, teachers also discussed the need to maintain high expectations for the children with disabilities. One teacher connected high expectations for children with disabilities with high-quality inclusion and positive outcomes for the children with disabilities. She cited an example of teaching a child to tie his shoe:

I think if you look at it more with a positive attitude than with a negative attitude, they’ll get more out of it. Instead of saying, ‘Well, I know he can’t tie his shoe,’ you can say, ‘well, he can come over and we can guide his hands so he can get the feel of doing it.’ So I think it’s more looking at them as being capable instead of incapable.

At the same time, teachers believed that accepting differences in children was an aspect of their attitudes toward inclusion. One teacher, for example, described a child with disabilities who was very tactile and liked touching her. She noted that because this is part of the child’s typical behavior, his touch did not bother her. In accepting the differences that children have, this positive attitude toward inclusion served as an inclusion support.

**Families.** In the category of *families*, teachers identified more areas of need than support. Therefore, participants considered this factor to be an

inclusion barrier. Some teachers identified the supports provided by families for their children with disabilities. Other teachers discussed the need for increased family involvement or assistance for the families of children with disabilities. One theme discussed was collaborating with the parents of children with disabilities to support their efforts in the classroom. Another theme that emerged was providing assistance to the families of children with disabilities. The teachers cited the need for, and benefits from, parent involvement inside and outside the classroom. One teacher described the support provided by the parents of a child with disabilities in her classroom: "Her parents both are great. They attend the meetings, and if they can't come, or one of them, they'll do a phone conference, so they're very supportive."

One teacher described the need to partner with families and the specific strategies that she uses to promote family involvement:

...the parent involvement through the home visit, that's the first thing. [In] the home visit they get to meet us through our first home visit so they get to see their teacher in their home. And then we have parent conferences and we get feedback from the parents as well.

The teachers also identified providing assistance for the families of the children with disabilities as both a need and a support. For example, a teacher stated:

We have so many parents from many different nationalities, you know, you have to kind of be right there beside them. Give 'em that support. Like when they have parent meetings and things, I try my best to be there. I'm going to be there.

Two distinct and somewhat opposing themes emerged as needs and supports for the category of *families*. The data suggested that getting support from families and providing support to families were both needed and available to various degrees in the teachers' settings.

**Classroom Environment, Resources, and Personnel.** In the category of *classroom environment, resources, and personnel*, teachers identified more areas of support than need, therefore participants considered this factor to be an inclusion facilitator. The dominant subtheme that teachers identified principally as a support related to the teachers who provide services to meet the needs of the children with disabilities. The teachers discussed the supports provided by special education teachers, related service providers, and other teachers. One teacher described the benefits of having a special education teacher and a speech pathologist come into the classroom.

I really like the fact that [name of special education teacher] and [name of speech pathologist] come into the classroom. One of them, she's excellent because she'll take a whole group of kids. If it maybe [is] a really hectic morning where my assistant is not here, but I know it is a morning where [name of special education teacher] is coming, I know that she will step in and help out.

On the other hand, teachers also cited the need for additional personnel in the classroom to facilitate high-quality inclusion. The same teacher quoted above also identified the need for additional teachers, particularly in a classroom with a high percentage of children with disabilities. "And I mean I think it [having special education teachers and related service providers in the classroom] would really work because I think just having the third person in a classroom would give you more interaction with the kids." Her statement also represents the subtheme discussed by some teachers about the need for a low ratio of children with disabilities and the need to distribute children with disabilities evenly across the classrooms at their sites.

Additionally, teachers identified both the benefit and need to collaborate with teachers, including special education teachers, resource teachers, and other teachers in the classroom and in the school. One teacher explained, "I think the collaboration between the special educators and the classroom teachers, it's great." Another teacher described, "We're pretty much a team. So if you need help, just seek out others." The teachers detailed the particular benefits of collaborating with various teachers such as getting additional supports, resources, and strategies for working with children with disabilities; communicating clearly with parents; providing additional perspectives and ideas; getting support in identifying children with disabilities and working through the eligibility process; and helping to transition the child with disabilities from preschool to kindergarten. Although the majority of teachers identified collaboration and the availability of teachers as a key support, some teachers described the need to improve or speed up the IEP eligibility process. One teacher lamented:

We've already discussed whether to have her [a child with a disability not previously identified when she came into the classroom] to be here or to take her out of the classroom and everything. But we still don't have her IEP. We're in March. So the process has taken seven months.

**Professional Development.** In the category of *professional development*, teachers identified more areas of support than need, therefore participants considered this factor to be an inclusion facilitator. Many teachers

described the training provided by their Head Start program as an important support for the high-quality inclusion of children with disabilities. In discussing the training provided by Head Start, one teacher described how professional development about children with disabilities is consistently offered. “I would say [in] August before school we talked about inclusion. We did a training, I don’t know who taught the training, but we had that. We had a whole half a day on inclusion.” The teacher went on to describe the benefits of the training, particularly in terms of his attitudes toward inclusion and his practices. Teachers also discussed trainings provided by the Head Start program that, although not specifically about children with disabilities, were helpful in their work in inclusive classrooms. For instance, teachers described trainings about developmental milestones, strategies related to behavior management and guidance, handwriting support, and strategies for working with families. In terms of discussing professional development provided by Head Start as a need, some teachers identified specific topics or areas related to inclusion as areas where additional training would be beneficial and also identified the need for continuous training to better enable them to address the specific needs of children with disabilities. For instance, one teacher emphasized, “What I could use [is] more training—even being here for nine years—because there are always different ways to reach another child.”

At the same time, teachers identified sources of professional development beyond the program-provided training as an inclusion support and also needed for high quality inclusion. A teacher in her first year of teaching talked about IDEA (Individuals with Disabilities Education Act) training offered in her school district and her professional development experiences related to children with disabilities in her teacher education program. She shared:

I’m actually going through a training [class] right now at the IDEA training. And that basically tells you why IEPs are so important and how specific you need to be with IEPs in order to help the child. And just within, my schooling, like I said, I just finished up. I just graduated from [name of university]. We had to take some specific special education classes that focused and taught about why we have IEPs and why they are important.

In addition to professional development from courses offered through other agencies, and professional development through teacher education (at community colleges and at universities), the teachers also identified professional conferences, books, and Internet resources as additional needs and available resources for professional development. One teacher described the need for both training provided by the Head Start program and training from outside sources when she recommended:

There's always room for improvement, always room to share, always room for more training. So I would definitely say continue on with the training that we have been given and especially with the money to take ongoing classes if you're able to do that.

**Teaching Knowledge, Skills, and Practices.** In the category of *teacher knowledge, skills, and practices*, teachers identified more areas of need than support, identifying this area as an inclusion barrier. The sub-themes that the teachers identified as needs mirrored those that they identified as supports. In terms of teacher skills and knowledge, the subthemes of: knowledge about specific disabilities, approaches for teaching children with disabilities, and the child with disabilities as an individual emerged as both inclusion needs and supports. One teacher discussed her advice to a new teacher in terms of inclusion supports: "I would just let her know that each child is different and try to learn the child." She went on to discuss the importance of using the Internet and other resources to look up information about a child's specific disability diagnosis. Teachers described the sources of their knowledge about specific disabilities and practices with children with disabilities as experiences in the classroom and with their own family members (siblings or children) and professional development experiences. Other teachers identified knowledge of children's disabilities, specific practices with children with disabilities, and knowledge of individual children as areas of need. In discussing her inclusion needs, particularly to include a child with a severe disability using high-quality practices, a teacher stated:

I don't have the background. Even though we have all of these support people here, I'm the one with the child almost the whole time the child is here. And I need specific knowledge to do the best job that I can of teaching to that disability.

This teacher whose quotation is shared in the title of the study also highlighted the importance of the general education teachers for high-quality inclusion.

Teachers echoed the importance of the teachers' practices for high-quality inclusion. They identified inclusion practices as needs and supports, particularly specific practices to address children's individual needs and to build relationships with the child with disabilities. Teachers detailed many practices that fell within the theme of specific practices to meet the individual needs of children with disabilities such as providing adaptations, working on IEP goals as part of daily activities and routines, and working with a child one-on-one. They also identified using observation and assessment to guide instruction and interactions, and providing additional time

or supports as practices that they carried out in their classroom to facilitate high-quality inclusion or practices that would be needed to facilitate high-quality inclusion. One teacher described her practices to help two children with speech and language IEPs to make progress and be fully included in the classroom: “We have a lot of symbols, picture boards to help build their vocabulary. [We use] modeling.” Another teacher also identified specific approaches that are needed to support inclusion: “I would suggest...to follow a routine, conversation, and trying to be consistent to make everyday something that they [the children with disabilities] can expect.”

## **Discussion**

The Head Start teachers’ discussions included five of six inclusion factor categories identified in previous research: (1) *attitudes toward inclusion*; (2) *families*; (3) *classroom environment, resources, and personnel*; (4) *professional development*; and (5) *teacher knowledge, skills, and practices*. However, teachers did not address the sixth category, *inclusive classroom quality*. It is possible that the interview questions did not lend themselves to the discussion of inclusive classroom quality like they did the other five categories (see Appendix A). Analysis of interviews with these inclusive early childhood educators revealed that the teachers perceived the categories of *classroom environment, resources, and personnel*; and *professional development* as inclusion facilitators, and the categories of *attitudes toward inclusion*; *families*; and *teacher knowledge, skills, and practices* as inclusion barriers.

The ways in which the teachers talked about the five inclusion factor categories illustrated the salient perceived inclusion needs and supports in their classroom settings. Although this study is limited by its focus on the perceptions of a small group of Head Start teachers, these findings provide insights into inclusion facilitators and barriers in Head Start classrooms. At the microsystem level, the teachers identified one factor (*environment, resources, and personnel*) as an inclusion facilitator and one factor (*teacher knowledge, skills, and practices*) as an inclusion barrier, highlighting how these factors interact at this level in complex ways. At the mesosystem level, the teachers similarly identified one factor (*professional development*) as an inclusion facilitator and one factor (*families*) as an inclusion barrier. Teachers’ connections at the macrosystem level were also an inclusion barrier related to the factor *attitudes toward inclusion*. Raising awareness of these perceived facilitators and barriers may help Head Start administrators and teachers identify and enact high-quality inclusive practices in Head Start classrooms.

Although participants did not discuss the factor of classroom quality explicitly, implications regarding inclusion quality emerged. Based on the DEC/NAEYC definition of inclusion (2009), specifically related to the factors used to identify high-quality programs and services, participants' discussion inclusion quality in their classrooms can be viewed in terms of access, participation, and supports. In terms of their role in access as a defining feature of high-quality early childhood inclusion, participants' discussions of the factor of *classroom environment, resources, and personnel* indicated that access was available in their settings because they identified this factor as an inclusion facilitator. By contrast, in terms of their role in participation as a defining feature of high-quality early childhood inclusion, participants' discussions of the factor of *teacher knowledge, skills, and practices* indicated that participation was not available in their settings because they identified this factor as an inclusion barrier. Similarly, in terms of their role in systems-level supports as a defining feature of high-quality early childhood inclusion, participants' discussions of the factor of *attitudes toward inclusion; families; and professional development* indicated that supports were not available in their settings because they identified these factors overall as inclusion barriers. The gap between participants' perceived inclusion needs and supports through the lens of features of high-quality inclusion, suggested that barriers to high-quality inclusion of young children with disabilities were evident to these Head Start teachers.

### **Inclusion Needs and Supports**

Overall, teachers across the three Head Start sites in this study believed they could include children with disabilities with high-quality when they possessed the knowledge, skills, and resources within their own classrooms, as reflected in other inclusion research (e.g., Kraska & Boyle, 2014; Nguyen & Hughes, 2012). The teachers' discussions of inclusion needs and supports tended to focus on their own classrooms. Particularly, teachers focused on their own role as knowledgeable and skilled enactors of specific strategies for inclusion, with the support of resource personnel and the foundation of a positive classroom environment. Therefore, teachers' discussions of inclusion needs and supports suggested that these teachers: 1) take personal responsibility for including the children with disabilities in their classrooms; and 2) believe specific instructional strategies are needed to facilitate high-quality inclusion. Teachers reflected a sense of personal agency related to meeting the specific needs of children with disabilities in their classrooms.

The teachers reflected a belief that the teacher herself must drive high-quality inclusion. For instance, in their discussions of their needs and sup-

ports related to the category of *teacher knowledge, skills, and practices*, teachers consistently identified context and child-specific skills and knowledge as significant needs. As an example, teachers identified skills and practices such as building relationships with children with disabilities and knowledge of specific disabilities. As another example, the themes that emerged from the teachers' discussions of attitudes, such as having high expectations for children with disabilities, also underscored how teachers believed that they were the principal agents of high-quality inclusion because they focused on their role in the inclusion of children with disabilities. The teachers discussed their enjoyment of teaching in inclusive settings, the importance of high expectations and positive outcomes for children with disabilities, and their acceptance of children's differences. They believed that positive attitudes toward inclusion are foundational to the high-quality inclusion of children with disabilities in their Head Start settings. Inclusion attitudes research (e.g., Kraska & Boyle, 2014; Nguyen & Hughes, 2012) confirms the teachers' beliefs regarding the importance of positive attitudes toward inclusion.

The Head Start teachers also recognized the importance of their knowledge and skills to enact inclusive practices in their classrooms. They identified the need for specific knowledge and skills, such as an understanding of the child with disabilities as an individual and the ability to help the child to achieve his or her IEP goals. Inclusion research yielded mixed results about general versus specialized practices to promote high-quality inclusion. Some researchers (e.g., Bubpha, Erawan, & Saihong, 2012; Stuart, Connor, Cady, & Zweifel, 2006) identified generally high-quality practices as appropriate for all children as needed for high-quality inclusion. By contrast, in other studies (e.g., Soukakou, 2012; Okolo, Ferretti, & MacArthur, 2007), the researchers identified specialized practices as needed for high-quality inclusion.

Inclusion researchers such as Wiart et al. (2014) and Rix et al. (2009) concluded that teachers with positive attitudes without other inclusion facilitators in place could not necessarily facilitate high-quality inclusion for the children with disabilities. The Head Start teachers agreed. They recognized that the quality of their inclusive practices in the classroom was dependent on support from specialized personnel as well as the children's families. The teachers identified special education teachers as an essential to high-quality inclusion and more so if the special education teacher collaborated closely with them or provided services within the Head Start classroom rather than pulling the children out.

Within the model of Head Start inclusion reflected in the teachers' discussions of their inclusion needs and supports, the teachers perceived their central role in facilitating high-quality inclusion through enacting specific

strategies. Our quantitative Head Start inclusion research (Muccio, Kidd, White, & Burns, 2014) echoed these findings. Teachers were central to inclusion. Specific rather than general strategies were essential to facilitate high-quality inclusion.

### **Inclusion Factor Categories**

Teachers' discussions of the inclusion facilitators and barriers in their settings also shed light on their inclusion perceptions. From the analysis, three main findings were evident. One, teachers described a range of inclusion factors rather than a single factor as relevant to their work with children with disabilities in the Head Start program. Two, teachers emphasized child-centered, relationship-based supports as critical to the high-quality inclusion of the children with disabilities in their own classrooms. Three, teachers shared a less systemic, classroom-based construction of inclusion in Head Start settings as compared to the DEC/NAEYC (2009) definition of inclusion. This focus on a variety of inclusion facilitators and on the interactions with individual children within the classroom underscores the idea of inclusion as a principally local experience.

Across the interviews, many inclusion factor categories emerged as relevant to the teachers. As evident in the content of their interviews and the analysis, teachers perceived inclusion in their Head Start classrooms as complex and influenced by a variety of factors. These findings reify the assertion by inclusion researchers (Buysse, 2012; Purcell, Horn, & Palmer, 2007) that one-dimensional representations of inclusion in Head Start are incorrect and incomplete. Simple representations of inclusion do not accurately reflect how it is enacted in a variety of early childhood settings. Based on the analysis of the teachers' perceptions, the teachers in the case also rejected a simplistic view of early childhood inclusion. Nevertheless, teachers' inclusion perceptions did tend to focus on children in the classroom and themselves as their teachers at the core. A relationship-based perspective permeated the teachers' discussion of the most successful ways to facilitate high-quality inclusion. Across inclusion factor categories, teachers, perhaps driven by their sense of agency, discussed the ways in which their relationships, in collaborating with special education teachers, could promote high-quality inclusion. The teachers focused on what was going on within the four walls of their own classrooms as opposed to systems level factors. Although this research did not directly measure the possible influence of the teachers' perceptions on their behaviors, it is possible that their inclusion perceptions did influence their inclusion practices such as using specific strategies and focusing on relationships with individual children.

### **Limitations and Future Research**

Although limited by a small sample size of teachers from three Head Start sites, this research provides insights with implications for Head Start inclusion practices, policies, and future research. In terms of the research setting and the teachers who participated in the study, the three Head Start sites were selected because they were already participating in the professional development research project with which the study was affiliated. Therefore, this represents a form of convenience sampling for the research setting and participants. It should also be noted that administrators at each Head Start site identified the classrooms where the observations took place. Furthermore, findings were based on a sub-sample from one region, and would not be generalizable to regional or national samples. Other key stakeholders such as administrators, special education and resource teachers, and parents were not included in the sample; therefore, this study represents the perspectives of the particular teachers only. Time and resource limitations also reduced the number of classrooms where observations and interviews were conducted. As a result, the classroom data were limited in range and quantity, but delimited by available resources and the scope of the study.

The study supports several areas of additional research. Due to the small number of teachers, the long reach of the Head Start program, and the contextually specific nature of inclusion, widening the sample of Head Start teachers and Head Start settings would contribute to a broader understanding. Increasing the number of teachers in specific Head Start regions and beyond—for instance, conducting research with a sample of teachers in each of the ten Head Start regions—would be an important next step. Another direction for further research would be a comparative study of inclusion perceptions and practices in a public preschool or other context with a similar population of children and families or with children and families to explore the influence of poverty on the inclusion of children with disabilities. Broadening the job role in the inclusion research also would be an important next step to build upon this study. Teachers in this study underscored the essential role of special education teachers and resource professionals. Therefore, research that examines the perspectives and practices of these key inclusion teachers would contribute valuable insights. Perhaps an examination of the perspectives of additional stakeholders such as administrators and families would provide a more complete picture of inclusion in Head Start settings.

Beyond broadening the scope of the study to include more participants with varied roles, directly examining the relationship between perceptions and practices, and the influence on the children with disabilities would be

an important, additional focus of Head Start inclusion research. A larger sample size of teachers to explore correlations between inclusion perceptions and classroom quality could provide a richer view of the possible relationship between teachers' perceptions and practices. An examination of child outcomes for the children with disabilities to directly explore the influence of teachers' beliefs and practices on the children with disabilities in Head Start would also be beneficial. A more comprehensive picture of inclusion in a range of Head Start settings will help early childhood professionals achieve the ultimate goal of providing high-quality inclusive experiences for all children with disabilities.

### **Educational Implications**

Teachers believed that positive attitudes toward inclusion were important but insufficient for high-quality inclusion. They also reflected the perspective that a range of factors influenced high-quality inclusion, particularly emphasizing the need for specific strategies to meet the needs of the children with disabilities in their classrooms. The teachers also reflected a classroom-based conception of inclusion and took personal responsibility for the inclusion of children with disabilities in their own classrooms. In order to capitalize on Head Start teachers' ideas of personal responsibility and the local nature of their conceptualizations of inclusion, individualized mentoring and professional development opportunities might be the most appropriate. Personal, classroom-based training could support Head Start teachers' abilities to facilitate high-quality inclusion. General strategies or a narrow range of supports or practices would not be effective based on how these teachers understand their role in the inclusion process. Comprehensive professional development programs and opportunities for self-study can help early childhood teachers to develop the needed specialized inclusion knowledge and skills.

Teachers are the key to high-quality inclusion in Head Start settings. The findings from this study align with Lee et al.'s (2015) claim: "successful implementation of effective inclusion very much depends on the attitudes of educationalists and the critical agent for successful inclusion is undoubtedly the teacher" (p. 85). The study findings confirm that the teachers in these Head Start classrooms also see themselves in this way. Although other inclusion facilitators that are less directly related to, or controlled by, the classroom teachers and assistant teachers had some influence on the inclusion perceptions of the study teachers, it was the teacher herself or himself who was at the center of high-quality inclusion in these Head Start settings. A multi-faceted model of inclusion in Head Start classrooms reflects the ways in which inclusion is enacted in a variety of early

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childhood settings. The perceptions of teachers who enact inclusion in their classroom settings have an important influence on the quality of the inclusion of young children with disabilities (Hsieh & Hsieh, 2012; Lee, Yeung, Tracey, & Barker, 2015; Odom, Buysse, & Soukakou, 2011). Developing a greater understanding of inclusion in Head Start settings is vital to support effective inclusion for the young children with disabilities in these classrooms. The research affords a more complete and nuanced picture of the inclusion of young children with disabilities in these Head Start settings. Children with disabilities can, and must, be included in Head Start classrooms with high-quality early education experiences for all children.

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## **Appendix A**

### **Interview Protocol**

1. How long have you been teaching in Head Start? Have you always taught in the [name of current program] or has some of your experience been in other Head Start programs? Do you have experience in other educational settings?
2. Tell me about the children with IEPs in your classroom this year. (Probe for the number of children with disabilities, nature of the disabilities, and family support.)
3. What kinds of experiences have you had with children with IEPs in your classroom?

How do you feel about those experiences? (Probe for first experiences, attitudes, and patterns of experiences over time.)

4. Tell me about your approach with children with IEPs. (Probe for strategies to address academic, physical, and emotional needs; and how well they feel they meet the needs for each individual child.)
5. [If not mentioned in question 4 response] What supports do you have for the children in the classroom with IEPs? (Probe for special education staff collaboration, material resources, and family role.)
6. Describe any training that you've had related to children with IEPs.
7. Would you want any changes or additions to the support and training you've had regarding children with IEPs?
8. What advice would you give to a Head Start teacher who has children with IEPs in her classroom for the first time?
9. Is there anything else that you would like to share about your experiences teaching children with IEPs?

## **Appendix B**

### **Codes from Conventional Coding**

#### Needs

##### 1. Attitudes toward inclusion

- Positive attitude toward inclusion
- Positive attitude toward children with disabilities/like working with kids with disabilities (pride when meeting goals)
- Acceptance of children's differences

##### 2. Families

- Parent support for getting the child an IEP
- To provide support for families (e.g., to negotiate the IEP process, to provide ways the family could work with the child at home)
- Family participation and involvement/collaboration or relationship with families

##### 3. Classroom environment, resources, and personnel

- Environment—Physical accommodation (larger room)/appropriate environment (social)
- Environment—Distribute children with disabilities across classrooms/low ratio
- Ensure children are getting needed services
- Environment—Children with disabilities in environment with children with typical development
- Environment—Structured environment
- Resources—Quicker IEP identification process
- Resources—Need more funding due to cuts
- Personnel—Collaboration/support (get information, ID process meetings, with other general education teachers, support, with assistant teacher, from management, as part of a team, with K teachers)
- Personnel—Additional personnel needed (to provide support, one-on-one)

##### 4. Professional development

- Additional PD needed (about specific disabilities, about boys, about talking to families about IEP process, about behavior management)
- PD useful/needed

5. Teacher knowledge, skills, and practices

- Knowledge about specific disabilities
- Knowledge about individual children
- Knowledge of the child's IEP
- Knowledge of specific approaches for children with disabilities
- Experiential knowledge from working with kids with disabilities
- Practices to support child's individual needs (encourage productive language)/work with the child individually
- Practices to set specific goals for the child
- Practices—Specific approaches for children with disabilities (facilitate communication)
- Practice to address IEP goals
- Practice to provide child with disabilities more time
- Practices—assessment/observation to get to know the child
- Practices—Time to give children individual attention/meet their individual needs
- Practice—listen to the child /build relationship
- Practice—discipline/structure/behavior management

Supports

1. Attitudes toward inclusion

- Positive attitude toward children with disabilities/understanding

2. Families

- Parent partnerships

3. Classroom environment, resources, and personnel

- Materials for children with disabilities
- Personnel—Support professionals—system wide supports (mental health, health department, consultants)
- Personnel—Support professionals—on sight (special education team, speech therapists, family service workers)
- Personnel—Collaboration (ID process meetings, with K teachers) resources
- Personnel/Environment—Dual placement

## *Perspectives on Inclusive Education*

### 4. Professional development

- Trainings provided by HS (staff development, on specific approaches for individual needs)
- Trainings not provided by HS (university, OFC)
- Develop own PD plan
- Other resources (books and the Internet)

### 5. Teacher knowledge, skills, and practice

- Knowledge of specific disabilities/do own research
- Knowledge from own experiences as a child with disabilities
- Practices to address specific needs (language, different expectation, one-on-one)
- Specific practices to meet the needs and interests of child(ren) with disabilities
- Specific practices—Relationships



## **Self-Efficacy of Pre-service Teachers' Literacy Teaching: Integrating Modeling and Reflection with Content and Pedagogy in a School-Based Setting**

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*This mixed methods study explored how pre-service teachers' self-efficacy changed when exposed to an integration of modeling and reflection of literacy content and instructional pedagogy in an elementary methods course. Participants included in this study were the pre-service teacher candidates (N= 54) enrolled in four different sections of EDUC 440: Elementary School Literacy Instruction and EDUC 441: Field Experience in Literacy Instruction. Both the quantitative and qualitative results of this study showed that pre-service teachers' self-efficacy with literacy teaching significantly improved after completing the literacy methods course within the school-based setting. Preservice teachers' feelings of teacher efficacy significantly increased over the 15-week semester the methods course was taught. Additionally, the study examined the methods course factors to which pre-service teachers attributed the changes in their self-efficacy of literacy content knowledge and instructional pedagogy. Participants referenced a variety of factors that improved their ability to successfully implement literacy lessons, which aligned with modeling and reflection. The emerging themes pertaining to modeling included: planning literacy lessons, managing a group during instruction, drawing on a variety of models, making effective teaching seem possible, and identifying a disconnect with learning. Themes surrounding reflection included: unpacking the instructional process, having opportunities to practice, viewing the teaching event, and debriefing about the teaching event.*

*Key Words: literacy; teacher education program design; teacher education; mixed design research studies; pre-service elementary education*

## **Introduction**

Researchers have documented the gap between the skills and dispositions that effective teachers need and the preparatory experiences that many traditional teacher preparation programs provide (Thornton, 2006a, 2006b; Tschannen-Moran & Woolfolk, 2007; Tschannen-Moran & Johnson, 2011). Specifically, pre-service teachers need support to implement what they know into action in school-based settings (The National Academy of Education Committee on Teacher Education, 2007). If these connections are not made for pre-service teachers, it can lead to a divide between theoretical content knowledge and how teachers engage students when learning content in classrooms (Grossman, Hammerness, & McDonald, 2009). In an effort to lessen this gap, the researchers systematically restructured a literacy methods course and combined practicum experience to ensure that pre-service teachers were prepared to implement both the literacy content and the instructional pedagogy they learned. This restructuring combined the infusion of explicit professor modeling balanced with the use of reflective practices on content and pedagogy in school-based settings. Both modeling and reflective practice have been shown to benefit pre-service teachers as they grapple with multiple factors during teaching (Andrews, 2007; Day, 1999; Spalding & Wilson, 2002).

In this study, the researchers focused on infusing modeling and reflection within a literacy methods course, which focused on applying reading and writing skills and strategies with elementary children. The course was taught in various public school settings where pre-service teachers were placed for an extended practicum experience. In order to document and understand the influence of balancing modeling and reflection within this methods course, pre-service teachers' self-efficacy as literacy instructors was measured at the beginning and end of the semester.

## **Theoretical Framework**

The researchers conceptualized this study through the integrated model of teacher efficacy proposed by Tschannen-Moran, Hoy, and Hoy (1998) and then further developed by Thornton (2006a; 2006b). This model is grounded in the assumption that a teacher's belief in his or her capability to organize and execute actions required to accomplish a specific teaching task in a particular context (the judgment of personal competence) is of paramount importance to his/her ultimate success. Grounded in Bandura's (1977; 1986) work with the sources of efficacy and the understanding that teacher efficacy is context specific, the researchers have framed this study to further examine which factors are related to pre-service teachers' self-efficacy for literacy teaching. Teacher efficacy has been defined as, "the

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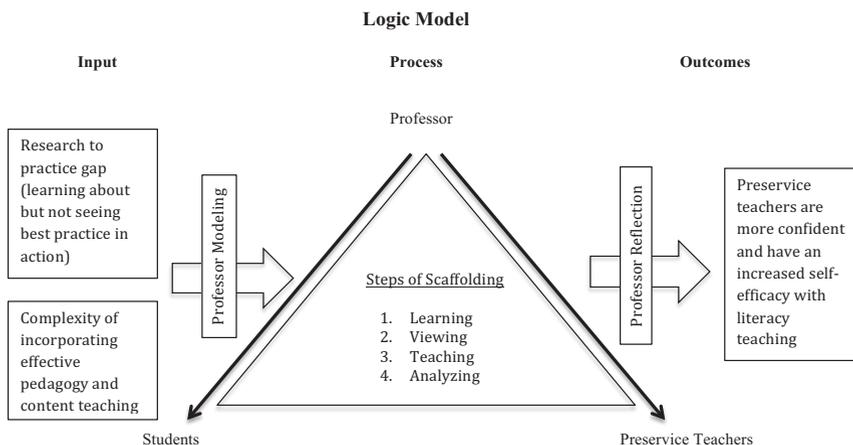
teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschannen-Moran, Hoy, & Hoy, 1998, p. 233). For the purposes of this study, pre-service teachers' self-perceptions and beliefs around literacy teaching were the primary focus.

A review of previous research clearly demonstrates the connection between teacher efficacy and important dispositions of an effective teacher, such as openness to new ideas (Guskey, 1988), persistence and resilience in the face of setbacks (Tschannen-Moran & Hoy, 2001; Tschannen-Moran & Woolfolk, 2007), and commitment to teaching (Coladarci, 1992). Self-efficacy has been shown to be an important indicator of teacher success and ability to adapt and adjust instruction effectively (Tschannen-Moran & Barr, 2004; Tschannen-Moran & Woolfolk, 2007). A high level of teacher efficacy has also been related to student achievement (Ashton & Webb, 1986; Jean 2012; Parrot Da Ros-Voseles & Eaton, 2012; Ross, 1992), which makes it a key indicator to measure pre-service teachers' readiness for teaching. Using teacher efficacy as a construct, researchers were able to analyze variables that could influence pre-service teachers' preparation for the complex work of literacy teaching.

Another underpinning of this study was the reliance on scaffolding as a means for infusing modeling and reflection. The concept of scaffolding is firmly grounded in a solid body of research associated with the work of Vygotsky (1978). Scaffolding targets the difference between an individual's level of functioning and his/her potential level of functioning. It is the process of providing support from an expert to a learner with less knowledge, gradually releasing the support as the learner's knowledge transfers towards his/her potential level of functioning (Arya, Christ & Ming Chiu, 2014). The act of scaffolding is incorporated into the formalized instructional design to promote learning. The amount and type of support needed is specific to each learner. The goal is to provide enough support, thus enabling the learner to do more than otherwise possible if working independently (Pea, 2004).

The researchers viewed the infusion of modeling and reflection on content and pedagogy through the lens of scaffolding. This study theorized that self-efficacy would be positively impacted when the professor employed a four-step procedural process to gradually release responsibility to the pre-service teacher, including the steps of: 1) learning, 2) viewing, 3) teaching, and 4) analyzing (see Figure 1: Logic Model).

Figure 1.



This four-step scaffolding process, where professor support is gradually decreased and pre-service teacher's responsibility and knowledge are gradually increased, was utilized throughout the 15-week methods course. This process provided pre-service teachers with examples and content from more knowledgeable individuals (professors), which in turn supported less knowledgeable individuals (pre-service teachers) to develop a deeper pedagogical understanding of effective literacy instruction. This approach ensured that modeling and reflection, two central principles of socio-cultural theory, were strategically incorporated through the use of scaffolding, which allowed content and pedagogical methods to be effectively incorporated and implemented.

## Literature Review

There is evidence to support the belief that many new teachers enter the workforce unprepared, or underprepared, and that their teaching skills and experiences vary greatly (Murray, 2013; Weisberg, Sexton, Mulhern & Keeling, 2009). However, the National Academy of Education Committee on Teacher Education (NAECTE, 2007) claimed that researchers have come to some agreement on the necessary skills a new teacher should possess when entering the classroom, as well as the characteristics that make teacher preparation programs successful in developing knowledgeable, adequately prepared first year teachers. These include an opportunity to: a) practice with continuous feedback and coaching, b) see a model of good practices by expert teachers, c) relate coursework to classroom teaching,

## *Self-Efficacy of Pre-service Teachers' Literacy Teaching*

d) gradually increase teaching responsibilities, and e) reflect upon and make improvements to one's teaching (Grossman, Hammerness, & McDonald, 2009; NAECTE, 2007).

Through the use of modeling by more experienced, knowledgeable professionals (in this case, the professor teaching the literacy methods course), pre-service teachers could gain a better understanding of content (the “what and when to teach”—the explicit and systematic nature of literacy components) and pedagogy (the “why and how to teach”—instructional strategies and practices) related to effective literacy instruction in an elementary classroom. Reflecting upon content and pedagogy previously modeled, pre-service teachers might remember what had been modeled, make insightful connections between the, “what, when, why and how” of literacy instruction, and then effectively replicate through practice what they observed and discussed. Both modeling and reflection are important tenets to the theoretical framework that leads to stronger self-efficacy, and more knowledgeable, confident, effective future teachers.

### **Modeling and Reflection**

Since teachers are expected to manage a wide range of processes while teaching, often referred to as multi-tasking, they must have “with-it-ness,” or the ability to be aware of what is going on in the classroom at all times. Research supports the idea that teacher beliefs about their individual ability to do so can be an important determinate of their actual quality of teaching (Gorrell & Capron, 1990; Jamil, Downer & Pianta, 2012; Keigher, 2010; Onafowora, 2005). It is believed that this “awareness” in pre-service teachers is learned through teaching by example as much as through learning the content in a direct instructional manner. Placing emphasis on modeling allows pre-service teachers to discover how effective methods are implemented within actual practice. In the language of teaching and learning, “teaching by example” is generally referred to as modeling (Jay, 2002).

Several studies found the use of modeling to be an effective tool within a methods pre-service course (Andrews, 2007; Gorrell & Capron, 1990; Jay, 2002). “Modeling presents one way of helping students gain deep understanding of teaching, for it offers an image of the possible—a foundation in developing a sense of effective instruction” (Jay, 2002, p. 83). Often, pre-service teachers come into methods courses with preconceived notions formed from their own years in school (Onafowora, 2005). The importance of modeling is amplified when pedagogy contradicts these preconceived ideas (Jay, 2002). Furthermore, Andrews (2007) conducted a study on the impact of modeling on pre-service teachers in the area of literacy, and found modeling made a difference in the learning of pre-service teachers, as 69%

of the participants chose modeling as their preferred method of learning new pedagogy.

As skills are directly taught and then modeled by an experienced professor, having students reflect upon what they are seeing is essential to the scaffolding process. Reflective thinking is a part of the critical thinking process referring specifically to the processes of analyzing and making judgments about what has happened and what has been seen. Dewey (1933), the originator of reflective thinking, referred to it as an active and purposeful thought or a form of information. Learners are aware of, and control their learning by, actively participating in reflective thinking, thus assessing what they know, what they need to know, and how to bring these two concepts together to make sense of the learning situation. We must actively teach and model reflective skills in a variety of ways if we are to demystify reflection for our students (Spalding & Wilson, 2002, Sullivan, 2011). Additionally, evidence shows that the art of reflection can help boost students' critical thinking skills, encourage students to think about their own thinking (meta-cognition), and help students prepare for assignments and assessments (RMIT University, 2006).

### **Content and Pedagogy**

Most teacher education programs encompass both content knowledge (knowledge about the subject matter being taught) and pedagogical knowledge (knowledge about instructional methods and teaching practices used to teach the subject matter) as integral parts of teacher preparation. Yet, there are several issues that arise in relation to the amount of time spent on each, and then the integration of the two in terms of developing effective future teachers. Research points to the idea that teacher preparation programs front-load knowledge of content and then follow with pedagogical knowledge (The Education Policy Center of Michigan State University, 2012), consequently making a clear distinction between the two. When it comes to educational curriculum and design issues, more time and exposure are spent on content, leaving practical knowledge and field experience as less significant. The national average of hours spent in field experience placements for teacher preparation programs ranges from 114-189, and the average number of hours for student teaching was between 480 and 586, approximately 13-16 weeks (American Association of Colleges for Teacher Education, 2013).

The Education Policy Center at Michigan State University (2012) concluded that the value of field experiences (practical knowledge) suffers from a limited research base, noting that not all experiences assist pre-service teachers in developing effective pedagogy. Excellent teachers make

teaching appear simple, so simply viewing a master teacher isn't enough. Additionally, not all pre-service teachers have the opportunity to view an excellent teacher in a practicum setting as mentor quality varies. Teacher education programs need to include sound field experiences that do more than simply attempt to have pre-service teachers placed with excellent teachers. They need to strike a balance between subject-specific and general pedagogy, transferring the emphasis from theory-based to procedure-based. Blömeke (as cited in the Education Policy Center at Michigan State University, 2012) believes this problem is exacerbated by the fragmentation across and within teacher preparation institutions as well as the huge gap between theory and practice. Schools complain that new teachers are experts in content knowledge but can't bring things together in order to teach the content effectively. This requires transforming subject matter knowledge (content) to effective pedagogical knowledge within the teaching process. Shulman (1986) further explained that such transformation occurs when the teacher critically reflects upon, and interprets, the content being taught and finds multiple ways to represent the information, thus adapting the material to those specific students' needs and functioning levels. Understanding the content is not enough. Pre-service teachers must learn how to infuse the content with effective pedagogy.

## **Research Questions**

The following three research questions were addressed in this study: a) How will pre-service teachers' self-efficacy change when exposed to a balance of modeling and reflection of literacy content and instructional pedagogy in an elementary methods course?; b) To what factors of the elementary methods course implementation do pre-service teachers attribute the changes in their self-efficacy of literacy content knowledge?; and c) To what factors of the elementary methods course implementation do pre-service teachers attribute the changes in their self-efficacy of instructional pedagogy?

## **Methods**

Researchers used a mixed-method approach referred to as triangulation to conduct this study (Creswell, 2013; Jick, 1979). A sequential, explanatory design was selected to clarify and add depth to the initial findings based on our theoretical perspective. Quantitative and qualitative data were obtained from a teacher self-efficacy survey (Appendix A) given to all participants in the study, several focus group interviews (Appendix B) given to a random sample of participants, and a final feedback form (Appendix C) given to all participants at the conclusion of the semester.

## **Setting and Participants**

Participants included in this study were the pre-service teacher candidates (N=54) enrolled in four different sections of *EDUC 440: Elementary School Literacy Instruction* and *EDUC 441: Field Experience in Literacy Instruction* during their Partnership Semester. During the Partnership semester, students participated in three courses concurrently: a literacy methods course, a math, science and social studies methods course, and a field placement. They spent part of the day (3 ½ hours) in an elementary classroom satisfying their practicum hours, and the other part of the same day (2 hours) in one of the two pre-service methods courses, taught onsite at the elementary school where they are placed for their practicum. Teaching the methods courses in an elementary school where the pre-service teachers are placed for practicum was a unique feature of this study.

During the course of the study, pre-service teachers were placed in four school systems located in central Virginia. Each section of Partnership was assigned to one of the four school districts. All of the school systems had a diverse population with a moderate to high percentage of students from low socioeconomic backgrounds, and all schools qualified for Title 1 services. Participants were in their final semesters of study in an elementary licensure program and were chosen from three sections in Fall 2013 and one section in Spring 2014. Participation in the study was voluntary and all students enrolled in these sections chose to participate with the exception of one student. Two students were removed from the study, as they were withdrawn from the methods course before the conclusion of the semester. To avoid any conflict of interest, students received confidential identifiers that were anonymous to the researchers. This step was taken to protect students' identities on the survey and response form, as the researchers served in dual roles of instructors for the course and principal investigators for the study.

## **Data Sources**

During the course of this study, data were gathered from three sources:

1. *Teacher Beliefs: TSELI*. TSELI (Tschannen-Moran & Johnson, 2011) is a 22-item survey instrument designed to measure teachers' sense of efficacy for literacy instruction (see Appendix A). It was developed to provide a means for researchers to examine teachers' self-efficacy beliefs. Survey items were constructed by drawing on the NCTE (1996) Standards for English Language Arts and the IRA (2004) TSELI was examined by conducting a principal axis factor

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analysis procedure. The reliability for TSELI had been tested on two different occasions both determining a high validity and reliability. Tschannen-Moran and Johnson's (2011) findings revealed Cronbach's = .96, and Martin's (2012) findings revealed Cronbach's = .95.

2. *Focus Group Interviews.* Researchers developed a set of semi-structured interview questions that were given to a random sample of participants (N=22) drawn from each of the Partnership groups (see Appendix B for Focus Group Interview Questions). Focus interviews were conducted in a small group setting by the researchers. Questions centered on the following two subject areas: a) self-efficacy of literacy content knowledge and b) self-efficacy of instructional pedagogy.
3. *Feedback Response Form.* Researchers developed a set of questions that were given to all participants at the conclusion of the Partnership Semester. The response form contained open-ended questions and focused on students' perceptions of: a) what facilitated student learning, b) most-learned aspects of the course, and c) least-learned aspects of the course (see Appendix C for Feedback Response Form).

### **Instructional Context and Study Design**

The researchers restructured a literacy methods course utilizing four specific steps of scaffolding each time a new instructional format was introduced. Content delivery and assignments were structured to adhere to a gradual release of responsibility where students participated in the process of learning, viewing, teaching and analyzing (see Figure 1: Logic Model).

The overall scope and sequence of the semester were divided into several overarching ideas within the framework of a balanced literacy approach. For the purpose of this study, we focused on the process of gradual release of responsibility, beginning with pre-service teachers being exposed to the essential content and pedagogy (*learning*), to professional modeling of the content and pedagogy being taught (*viewing*), to the implementation of content and pedagogy by the pre-service teacher (*teaching*), to finally reflecting upon key aspects of the taught lesson (*analyzing*), for three specific instructional formats of literacy instruction: guided reading, shared reading, and writing. Initially, the pre-service teachers taught a guided reading lesson to a small homogeneous group of students, incorporating several components of literacy instruction within a structured lesson plan format. Second, pre-service teachers used effective instructional practices with the whole class by teaching a shared reading lesson. This assignment required students to select a text and a comprehension focus to match state standards.

At the end of the semester, students planned a week of writing mini-lessons focused on one trait of effective writing, and taught one of these lessons within the methods classroom to their peers. These aspects of balanced literacy were aligned with the items on the TSELI survey instrument.

***Learning content and pedagogy within the university methods classroom.*** Students were exposed to specific content and pedagogy explaining the three types of literacy instructional formats introduced in the preceding paragraph. The professors utilized a variety of active learning instructional strategies that intentionally incorporated elements of organizing and reflecting upon content and pedagogy, with the intention of making students' thinking visible. Specific active learning strategies such as: graphic organizers, concept maps, reflective writing journals, and visual representations were utilized to maximize student engagement and ensure content was being mastered.

***Modeling content and pedagogy in the practicum classroom.*** Prior to modeling specific lessons for the pre-service teachers, lesson plans developed by the professor, or an expert in the field, were previewed. These lesson plans were analyzed, discussed, and reflected upon to help the pre-service teachers make connections to the content and pedagogy previously taught and to prepare them for the upcoming lessons they would implement. Viewing the professor implementing live lessons in classrooms, as well as master teachers on video, followed this step. As part of the instructional procedure, pre-service teachers utilized a professor-developed observation tool and video-viewing checklist (see Appendix D) to help identify content and pedagogy being observed. This forced students to reflect on their thinking while learning, and to make their thinking visible to the professor.

Directly following the model lesson, the professors debriefed with the pre-service teachers, allowing them to reflect upon the experience by highlighting essential content and pedagogy. This helped the pre-service teachers examine the decision making process that was used by the expert teacher while teaching. It also allowed the pre-service teachers to start thinking about the lesson they would teach. This was followed by a collaborative workshop where pre-service students and the professor worked together to develop an appropriate lesson plan to be taught by the pre-service teacher. During the workshop, the professor facilitated learning by helping students make connections to what they viewed and by making suggestions as to what may, or may not, be appropriate to include in the lesson plan. Each student was required to develop an effective, well-written lesson plan.

**Implementation of lessons during the teaching academy.** After students were taught the specific content and pedagogy, participated in viewing effective modeling of the content and pedagogy, and analyzed each instructional format of literacy, they participated in a two-week period called the Teaching Academy. During this time, pre-service students were expected to apply the literacy content knowledge and pedagogy taught and modeled in the methods course by teaching a similar lesson in their practicum classrooms. In addition to teaching their own lessons, students were observed by their professor and were provided feedback on their teaching during a formalized debriefing conference. Pre-service teachers were also observed and given feedback from their peers, and viewed a video of their teaching while completing a video viewing checklist (see Appendix D) highlighting key components of effective teaching.

### **Data Analysis**

As this was a sequential mixed methods study, researchers analyzed both quantitative and qualitative measures to investigate the outcome of integrating modeling and reflection with content and pedagogy on pre-service teachers' feelings of self-efficacy around literacy teaching.

**Quantitative measures.** Using a repeated measure design, a two-tailed, paired t-test was calculated to determine significance when comparing mean differences on the TSELI survey (Appendix A). Participants were measured at two points during each 15-week semester (baseline and post), examining maintenance and growth of self-efficacy in literacy instruction. Baseline data were collected during the first week of the study. Post-data were collected in the last week of the semester. The researchers administered all measures, however, participants were given a code number to protect their identity and remain anonymous. A graduate assistant entered data into a statistical database (SPSS) as coded identifiers.

**Qualitative measures.** Qualitative data were collected through the use of interviews (Appendix B) and a feedback response form (Appendix C). All participants completed the feedback response form at the conclusion of the semester, but only seventeen randomly selected students were chosen to participate in one of three panel interviews. Two of the panel interviews were conducted at the conclusion of the fall semester in 2013 and the third interview was conducted at the conclusion of the spring semester in 2014. The two researchers conducted these interviews, but caution was taken to ensure that the professor of record was not also the interviewer.

After all data were collected, each interview and response form was transcribed and subsequently coded by the researchers who looked for similarities and differences in meaning. Constant comparative coding was used

to stay as close to the data as possible, while analyzing the information. The transcripts were examined as small units of thought, and then short codes were applied that reflected the meaning of the content. This method allowed the researchers to get an accurate idea of emerging categories. Emerging categories were used to focus the participants’ responses and organize the data. The researchers coded all data individually with separate codes. Then axial coding was used to create categories of information and smaller subcategories to determine patterns and to help disaggregate specific information that emerged from the data. At this point, researchers combined their codes, noticing when individual codes overlapped or when interpretations differed. Starting with individual codes and then coming to consensus on categories of coding helped the researchers maintain the integrity of the intended message and provided opportunities for a thorough analysis of the data.

## **Findings**

The results of the TSELI survey (Appendix A) indicated there was high significance when comparing the mean difference of the sum of survey questions from all participants at pre to posttest,  $t(53)=12.063$ ,  $p<.000$  (see Table 1).

*Table 1. Results of a Two-tailed, Paired t-test and Descriptive Statistics for Comparing Mean Differences on the TSELI Survey*

Outcome	Baseline		Post		n	95% CI for Mean Difference	d	t	df
	M	SD	M	SD					
	137.61	24.185	175.59	13.80	54	44.297, 31.66	1.7*	12.063*	53

\*  $p < .000$ .

Results showed pre-service teachers’ feelings of teacher efficacy significantly increased over the duration of the Partnership Semester.

These findings showed that pre-service teachers’ feelings of teacher efficacy significantly increased over the duration of the Partnership Semester. To further support the t-test, Cohen’s d was calculated to determine a high effect size,  $d=1.9$ . These findings definitively answered the first research question, as pre-service teachers’ self-efficacy significantly changed when exposed to a balance of modeling and reflection of literacy content and instructional pedagogy in an elementary methods course. Through

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these quantitative findings alone, it is difficult to ascertain if other factors were also related to this statistically significant shift. Because of this limitation, and due to the fact that researchers were unable to compare these findings to a control group, qualitative data were also analyzed after the quantitative data were collected. Qualitative data directly sought to address research questions two and three by examining to what factors of implementation within the literacy methods course the pre-service teachers attributed the changes in their self-efficacy of literacy content knowledge and instructional pedagogy.

In an attempt to explore the factors behind the results of the survey findings, the researchers examined qualitative data to identify themes in relation to pre-service teachers' increased self-efficacy. By examining the focus interview transcripts and the feedback response forms, the researchers generated a number of sub-themes that will be discussed within the two overarching themes of modeling and reflection. These themes were all related to the study's focus on the interplay between content and pedagogy. They also directly address what aspects of the course design to which pre-service teachers attributed their changes in self-efficacy of content knowledge and/or pedagogy. These themes will be described and further explored in the subsequent sections.

### **Modeling: Viewing Good Teaching**

Participants shared many reasons why they felt opportunities to observe proficient models during the course positively shifted their self-efficacy. These responses address research question two and three, as the participants attributed modeling as a factor in changing both content knowledge and pedagogy. Participants' views will be discussed using the sub-themes of planning literacy lessons, managing groups during instruction, drawing on a variety of models, making effective literacy teaching seem achievable, and recognizing the disconnect between best practices and day to day instruction.

**Planning literacy lessons.** Participants in all cohorts emphatically stated the importance of having the professor model literacy lessons with real children in the school-based setting. This point was made in each focus group interview and on every feedback response form. Participants in this study commented on the positive influence professor modeling had on their ability to teach literacy effectively. One common response was that professor modeling shifted their understanding of how to plan and implement effective literacy lessons. One participant wrote, "I found that observing the instructor modeling literacy lessons was powerful and very beneficial. For me, personally, I benefit greatly from watching before I carry out. It helps me brainstorm and get ideas for how to carry out the lessons." An-

other student noted, “I don’t think my lessons would have been the same without watching the professor teach first.”

Many students expressed similar sentiments. “I am a visual learner. I can have all the strategies in my head, but it helps to see them in action.” Participants routinely noted that they realized, through the experience of observing the professor modeling, that they benefitted from modeling just as their elementary students did. This seemed to be a very pivotal moment for many pre-service teachers, as they began to see the impact of modeling on their own learning and success in teaching. A pre-service teacher in the third focus group stated it this way:

It helped more for me to be able to see it than it did for me to read it in the books...I would read it in the books and I would be like, ‘Oh, this sounds great, but now I really want to see it. I want to see it being done. I want to see it being done the right way.

**Managing classroom groups.** A number of participants shared that they learned from a strong example how to manage behaviors to ensure that all students are learning. For instance, one student wrote, “I really thought it was helpful to see [the professor] teaching to “real” students so we could see how she handled students in real life situations.” Another student commented:

Watching someone exhibit strong classroom management skills is a great way to learn and revise your own skills. Having a model to go by helped me plan my own lesson and hopefully helped me teach it better than I originally would have.

Students often commented on the importance of good classroom management skills when teaching literacy lessons in various formats. These participants discussed how important it was to observe the professor teaching the content, while also managing the group effectively. This seemed to be a key difference for students when seeing a model lesson live versus on video. Having the experience of being in the classroom while the professor implemented the lesson seemed to greatly improve pre-service teachers’ confidence in their ability to manage a group while teaching.

**Having a variety of models.** While the most consistent feedback from participants in this study pertained to seeing the professor modeling lessons with elementary students in the school-based setting, the ability to watch various master teachers on video was also a strong point discussed by many participants. One student in the first focus group explained why this was helpful, “[The professor] would play videos of other teachers that we don’t actually know teaching...she would give multiple examples so you can see the variety of ways that literacy can still be taught effectively.” A large

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number of participants expressed that having videos of master teachers was a good supplement to the professor modeling, but could not supplant it. For instance, in one cohort, some students were not able to see the professor model one of the literacy lessons. They were provided video of the professor that closely aligned with the live example. However, many students in this cohort commented that they wished they could have seen this modeled live. Watching the lesson on video, instead of live in the classroom, did not have the same effect on many participants in this study.

A small number of students noted that watching effective teachers on video was not helpful and did not significantly affect their ability to effectively implement literacy lessons. These tended to be students who felt very strongly about the importance of watching the professor model live. It appeared that approximately 15% of participants were not able to make generalizations about how to apply what they were viewing on camera in the same way they could make connections from watching a live lesson.

**Making effective literacy teaching seem achievable.** Many participants discussed how the experience of observing the professor modeling shifted their confidence level with teaching the content. One student wrote:

After seeing my professor model the lessons, I was much more confident in my ability to teach because I knew what I should include and how it should be executed. If I had not seen an example, it would have been much more difficult and I would have felt less prepared.

Another student discussed this through an emotional lens: "By watching the instructors model literacy lessons, it helped calm my nerves and anxiety." We have found that it is very common for pre-service teachers to feel nervous about the first formal lessons they teach, especially when their professors and/or peers observe them. Although students in this study still reported feeling some level of apprehension about teaching literacy lessons, they regularly reported that observing the professor modeling first significantly increased their confidence, thereby decreasing their anxiety. In essence, the modeling experiences increased their feeling that this type of teaching is achievable

Many participants noted that observing the professor modeling and watching videos of master teachers were crucial to their ability to effectively execute literacy lessons because they were not seeing these effective practices on a daily basis in their practicum setting. One student wrote, "Sometimes I feel like we're expected to know how to do these different styles of teaching when we've never maybe seen it carried out in the classroom." Another student explained, "Watching the videos and the instructor [teach] allowed me to see what is effective and what should be done. I

wouldn't have ever seen a correct model if it wasn't for that. When I saw this, it became concrete." These modeling experiences, provided through the methods course, were especially important for participants' self-efficacy when they were not seeing effective models in their practicum placement.

For the participants in this study, seeing the professor model live lessons with real students, coupled with videos of master teachers, made many of these pre-service teachers feel that effective teaching was attainable. Ironically, these same participants also noted that having the professor modeling in the school-based setting shifted their cooperating teachers' literacy teaching as well. One focus group participant noted, "I know the cooperating teachers wanted us to video [the professor] doing it so *they* could watch *you* and learn from *you*." Other students wrote about this in their reflection forms, discussing comments the cooperating teachers made after watching the professor model or the pre-service teacher implement the required literacy lessons.

**Recognizing the disconnect between best practices and everyday teaching.** Many participants in this study discussed their realization, by the end of the semester, that what they were observing in their practicum placement did not always align with their learning about best practices in literacy instruction. Some students came to this understanding after watching the professor model, and others after analyzing their own teaching. A number of students commented on disconnect between what they were seeing in the classroom and what they were learning and practicing in their methods course. For some participants, this was a source of frustration as they realized how much progress the elementary students could have been making if they had been exposed to effective instructional practices. One participant in the third focus group shared, "Just being in the classroom and not seeing writing at all, it showed more and more— especially toward the end of the semester— how much writing impacts." Others were frustrated because they felt their learning could have been furthered if they had seen effective literacy instruction modeled daily (instead of only by the professor and the videos of master teachers). One participant said, "In my classroom, reading and writing and word work were so over-generalized. They weren't broken down...it would be so broad, not modeling...anything." Another student added, "We just didn't really see a lot of those components [from the methods course] in the classroom."

It seemed that the pre-service teachers in this study each experienced situations of disconnection with their cooperating teacher's practices differently. For some, this experience seemed to increase their self-efficacy (they learned despite a less-than-ideal model) and for others it may have decreased their self-assuredness (they reported feelings of nervousness

about literacy teaching because what they were being asked to implement was so different from what they were experiencing in the classroom). In either case, the focus on modeling seemed to deepen students' awareness of effective practices.

### **Reflection: Thinking Through Good Teaching**

Participants shared many reasons why they felt that opportunities for reflection during the course positively shifted their self-efficacy. These responses address research question three, as the participants discussed the role reflection played in developing their instructional pedagogy. These responses will be discussed using the sub-themes of unpacking the instructional process, opportunities to practice, viewing the teaching event, and debriefing about the teaching event.

**Unpacking the instructional process.** In addition to viewing effective models, another essential element of the course design was the structured debrief of both types of teaching (professor modeling and video of master teachers). This structure assisted the pre-service teachers in deconstructing what the models were doing that led to the success of the lesson. Although participants did not directly state how this element changed their self-efficacy, it was clear from the interview responses that this combination of supports was important for the pre-service teachers, especially those who were not seeing a strong model in their practicum placement. Often, participants discussed the opportunity to view good teaching and the unpacking of that teaching synonymously. Having an opportunity to discuss the modeling event (whether live or on video) was seen as part of the “modeling” experience. The researchers noted that the pre-service teachers understood the moves and decisions of the master teacher at a much higher level, given the guidance of the professor during the discussion. It was apparent in each and every conversation that, after viewing a modeling experience, students learned new concepts, and felt more confident in their ability to try them, after the instructional process was unpacked with the professor.

**Opportunities to practice.** Participants in each of the focus groups discussed how the opportunity to have hands-on practice with teaching significantly changed their understanding of how to effectively teach literacy. A number of students in the second focus group discussed how important it was that they had practice teaching whole group, small group, and one-on-one lessons. This sentiment was echoed by an overwhelming majority of students on the feedback forms. The participants in this study seemed to recognize the nuances inherent when teaching in various settings and appreciated the opportunity to practice teaching literacy in different formats.

Another outcome of multiple teaching experiences was the increase in

participants' confidence levels. Participants directly reported an increase in self-efficacy in relation to the support provided. One participant stated:

I grew the most confidence through just implementing the lessons and actually being able to do it, because when we first taught our lessons, I was like, 'Oh my gosh, am I gonna do this right?' All these things were running through my head, and after I did it, I was like, 'Oh, I can actually do this.' It really boosted my confidence.

Another student wrote, "I learned so much about myself and how to teach and be confident. It is important to be confident while modeling and giving explicit instruction." A participant in panel group three shared, "I feel very confident going into student teaching after this class because we've just learned so many strategies [for teaching]."

Participants in this study expressed that their understanding, ability, and confidence for literacy instruction improved with each opportunity they had to teach lessons to students. It seemed that these opportunities allowed them to take what they learned from the modeling experiences and apply it to their own practice immediately. This required students to reflect on what they saw, and decide how to integrate this into their own lessons. This reflection was furthered after participants viewed their own teaching.

**Viewing their own teaching.** Participants were required to video record and view at least one of their own literacy lessons. Students were given a video-viewing checklist (see Appendix D), designed by the professors, to assist with reflecting on their teaching. A number of participants in the first focus group discussed the importance of watching a video of their own teaching. These students felt that the experience of watching themselves teaching shifted their understanding of effective literacy teaching. One participant said, "The videos show you what you miss...or, how much you miss...and then how you can adjust your strategies to make sure you're not missing those now." Another student in the third focus group explained, "I was videotaped for [the shared reading lesson] and that helped me a lot to just see how I can grow and how I can change things."

Many participants, in various groups, clearly described the discomfort they felt watching themselves teach, but even these students saw value in the process. One student explained it like this, "It's painful sometimes, but you see what exactly you did and you see the students...what worked and what didn't." Another student in focus group three explained, "Being able to watch myself, that gave me...at first it was weird, and I was like, 'Wait a second, that's me?'...but then it gave me good confidence. I was like, 'Wow! I'm doing this well.'" Having a structured format for viewing their teaching appeared to deepen pre-service teachers' ability to reflect on what worked and what they want to improve upon in their instructional delivery.

**Debriefing about the teaching event.** A number of students commented on their apprehensive feelings about being observed while teaching, however, many students shared that this element was invaluable because they gained so much from the opportunity to reflect and debrief with the professor. A large majority of participants indicated on the feedback form that this aspect of the course supported their learning. One student wrote, "The professor observation and debrief, although nerve-wracking, was VERY beneficial and informative." Another student explained it this way in a focus group interview:

The debriefs were really helpful, and the reflecting activity that we did where we actually had to sit down and be like, 'I think I did this well...I think I could improve in this area.' It really shows you what you think your strengths are and what you need to develop.

Some of the responses students shared about reflecting and debriefing on their teaching indicated that the experience had an opposite effect than they had anticipated. Many students seemed afraid of this aspect of the course design because they were unsure of their teaching ability. However, instead of highlighting their deficiencies, most students felt that the opportunity to debrief with the professor identified their strengths and increased their self-efficacy. One student in the third focus group shared, "For me, my shakiness was actually having someone watch me...but doing it and hearing the feedback and watching what I did correctly and how I need to grow just boosted my confidence so much." Another student explained:

[The professor] gave us really good feedback so I feel really confident with the areas that I can grow in and the areas that I did really well. I feel like the feedback helped me to build my confidence in literacy.

It seemed that, for many students, analyzing their teaching with a knowledgeable other (the professor) increased their feelings of self-efficacy.

## **Discussion**

As teacher preparation programs are increasingly scrutinized for their ability to successfully produce teacher candidates who are prepared to teach all students to be literate—regardless of ethnicity, socioeconomic status, home life, or first language proficiency—we must analyze whether the traditional model is working. We propose that teacher preparation programs can benefit by combining methods coursework with professor modeling and guided reflection in a school-based setting.

Our research has shown that using a scaffolded approach to modeling

and reflection, which bridges literacy content learning with effective pedagogy, is associated within pre-service teachers' changing perceptions of their own capabilities with regard to literacy teaching. This approach acknowledges previous research on the importance of addressing pre-service teachers' self-efficacy for literacy teaching by utilizing this crucial time during students' teacher preparation to build capacity for internal motivation, persistence and self-reflection skills. The necessity of this type of resilience is well documented in the current climate of public education and could have a significant impact on the success of these teachers regarding student achievement and their own persistence, once they enter the field.

Additionally, using a program design that ensures all students have opportunities to see effective teaching being modeled addresses the conundrum faced by many colleges and universities struggling to find enough high quality cooperating teachers. Although teacher preparation programs make great efforts to ensure that pre-service teachers are placed with exemplary models, in some localities it is not always feasible or controllable by university faculty. This gap between research and best practice in the field, and common practices in schools, was one of the key reasons the researchers began experimenting with ways to guarantee that *all* pre-service teachers were able to view good literacy teaching before they were expected to implement this teaching themselves. By coupling a practicum placement with methods coursework that used a scaffolded design and relied on modeling and reflection, some of the inconsistencies in placement could be mitigated.

Both the quantitative and qualitative results of this study clearly showed that pre-service teachers' self-efficacy regarding literacy teaching significantly improved after completing the school-based literacy methods course within the school-based setting. The quantitative data revealed that, on all indicators, participants were more knowledgeable with the literacy content and effective literacy pedagogy by the end of the course. Participants elaborated on various elements of the course design that they attributed to this shift in knowledge and confidence. Although not every student agreed on the exact combination of factors, it was clear that participants felt that the scaffolded approach to pre-service teacher training contributed to a positive learning environment. There was also overwhelming agreement that having the professor model various literacy lessons in the school-based setting was the linchpin for marked improvement in pre-service teacher effectiveness and helped to bridge the divide between modeled effective practice and the day to day observation of instruction in their practicum classrooms.

## **Implications for Future Research**

The incorporation of a scaffolded process, with an emphasis on the importance of modeling and reflection on the learning of instructional content and pedagogy, was validated as an effective way to increase pre-service teachers' self-efficacy in literacy instruction. One area of this research that should be further explored in validating this scaffolded school-based model is the role of the cooperating teacher and his/her effectiveness in providing effective literacy instruction. Of the pre-service teachers involved in the practicum course, how many were able to observe consistent and effective literacy teaching? In the classes where the cooperating teacher instruction was good, to what extent were observed practices consistent with professor modeling, and to what extent could some of the positive outcomes for pre-service candidates be attributable to daily observation beyond the scope of training the professor provided?

To extend this research, it would be important to conduct more studies examining the processes of learning, viewing, teaching, and analyzing through modeling and reflection in a variety of environments. For example, the researchers are interested in how these findings could be replicated in graduate classes or professional development experiences with in-service teachers. They are also interested in how this type of instructional design could be expanded to other methods courses focusing on other subject areas (i.e. math, social studies, and science). Another interesting assessment would be to determine whether the experiences the pre-service teachers had in this scaffolded school-based model would impact how the candidates performed as student teachers. Finally, researchers feel it would be interesting to follow these pre-service teachers into their first year of teaching and document how, if at all, their self-efficacy is affected by the demands of being a first year teacher.

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## **ABOUT THE AUTHORS**

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## **Appendix A**

### TSELI Survey Questions

*Directions:* Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) “None at all” to (9) “A Great Deal” as each represents a degree on the continuum.

1. To what extent can you use a student’s oral reading mistakes as an opportunity to teach effective reading strategies?
2. To what extent can you use a variety of informal and formal reading assessment strategies?
3. To what extent can you adjust reading strategies based on ongoing informal assessments of your students?
4. To what extent can you provide specific, targeted feedback to students’ during oral reading?
5. How much can you do to meet the needs of struggling readers?
6. To what extent can you adjust writing strategies based on ongoing informal assessments of your students?
7. To what extent can you provide your students with opportunities to apply their prior knowledge to reading tasks?
8. To what extent can you help your students monitor their own use of reading strategies?
9. To what extent can you get students to read fluently during oral reading?
10. To what extent can you model effective reading strategies?
11. To what extent can you implement effective reading strategies in your classroom?
12. To what extent can you help your students figure out unknown words when they are reading?
13. To what extent can you get children to talk with each other in class about books they are reading?
14. To what extent can you recommend a variety of quality children’s literature to your students?
15. To what extent can you model effective writing strategies?

*Self-Efficacy of Pre-service Teachers' Literacy Teaching*

16. To what extent can you integrate the components of language arts?
17. To what extent can you use flexible grouping to meet individual student needs for reading instruction?
18. To what extent can you implement word study strategies to teach spelling?
19. To what extent can you provide children with writing opportunities in response to reading?
20. To what extent can you use students' writing to teach grammar and spelling strategies?
21. How much can you motivate students who show low interest in reading?
22. How much can you do to adjust your reading materials to the proper level for individual students?

## **Appendix B**

### **Focus Group Interview Questions**

#### *Self-efficacy of Literacy Content Knowledge (the WHAT)*

1. What aspects in the design of the course facilitate your development of literacy content knowledge?
2. What specific assignments in the course facilitate your development of literacy content knowledge?
3. What specific experiences in the course facilitate your development of literacy content knowledge?

#### *Self-efficacy of Instructional Pedagogy (the HOW)*

4. What aspects in the design of the course facilitated your understanding of how to teach literacy?
5. What assignments in the course facilitated your understanding of how to teach literacy?
6. What experiences in the course facilitated your understanding of how to teach literacy?
7. On a scale of 1-10, how confident are you about teaching literacy? Do you feel more confident about your ability to teach literacy than at the start of the semester? If so, what most contributed to your current confidence level?

## **Appendix C**

### **Partnership Feedback Form**

1. The things about this course that facilitated my learning were:

- My journal
- Tutoring group discussions
- Class discussions
- Professor observation and debrief
- Peer observation and debrief
- Videotaping my teaching
- The readings
- The MAA's
- The Small Group and Whole Group Literacy Lessons
- The Word Study assignment
- The Writing Mini-Lesson assignment
- Tutoring

2. I learned the most about:

3. I still have confusion about:

4. I think these aspects of the course should stay the same:

5. I think these aspects of the course should change:

Reflection Question: What impact did observing the instructor modeling literacy lessons (i.e. guided reading, shared reading, and writing mini-lesson) have on your ability to teach literacy effectively?

## **Appendix D**

### **Video Viewing Checklist**

Directions: Please use the checklist below after watching the video of yourself teaching a lesson. In addition, use the comment areas for each section to reflect on what you noticed.

#### **ORGANIZATION**

- Has all materials ready and accessible.
- Begins the lesson on time.
- Sets instructional and behavioral expectations.
- Has smooth transitions between topics/activities.
- Summarizes previously taught content periodically during the lesson.
- Reviews essential content/main points.
- Ends the lesson on time.

*Comments:*

#### **PACING**

- Asks/checks understanding before moving on to next topic.
- Covers an appropriate (not too little or too much) amount of material.
- Does not engage unrelated issues/content during class (does not go off on tangents).
- Provides students enough time to finish tasks.

*Comments:*

#### **SPEAKING**

- Uses an acceptable tone/volume.
- Speaks clearly (does not stutter, slur, mumble words or say “uh”/”um”).
- Maintains eye contact with students.
- Slows speech when covering difficult terms/ideas/content.

*Comments:*

## **INTERACTION**

- Uses specific positive reinforcement to praise student responses.
- Encourages student participation.
- Activates student engagement (equality in questioning, choral responding, etc.)
- Allows student wait time.
- Admits error or insufficient knowledge (i.e. suggests options for finding correct information).
- Encourages student to answer difficult questions by restating questions, providing a prompt, or providing a choice.
- Integrates student ideas into class.
- Provides frequent immediate corrective feedback when needed.
- Shows respect and sensitivity to diverse learners.
- Asks questions of various levels (i.e. Bloom's Taxonomy)
- Moves around the room while teaching.

*Comments:*

## **CLARITY**

- Uses easy to understand terms and language when teaching new concepts.
- Describes new concepts/terms in a variety of ways.
- Uses modeling to explain concepts/strategies taught ("Think-Aloud" and visual aides).
- Clearly explains relationships among topics/concepts/facts (by comparing, contrasting, categorizing or using examples and nonexamples).
- Answers questions completely.
- Restates and validates student responses.

*Comments:*

**ENTHUSIASM**

- Speaks in an expressive manner.
- Smiles while teaching.
- Shows respectful facial expressions.
- Shows appropriate sense of humor.
- Appears relaxed.

*Comments:*

**RAPPORT**

- Creates a warm classroom climate (students speak freely, relates to students as people, appropriate humor)
- Responds to student misunderstandings or confusions respectfully.
- Treats students/class equitably.
- Encourages mutual respect, honesty, and integrity among class members.

*Comments:*



## **Teachers' Voices: Autonomy and Literacy Practices in Secondary Schools**

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*This pilot study was meant to discover middle and high school teachers' views of teacher autonomy in making curricular decisions regarding literacy, assessment, and use of technology within their school districts. From the 100 teachers surveyed, we discovered low levels of autonomy in choice of classroom curricular materials and assessments, but individual teachers had more freedom to determine instructional use of technology. Yet only a quarter of the respondents had computers available in their classrooms. We concluded that the current atmosphere privileges curriculum over students, but that teachers need the flexibility to consider the needs, abilities, and prior knowledge of their students. Our pilot survey was only a first step toward addressing teacher autonomy regarding best practices in literacy and technology at the middle and secondary level. A future survey and focus group interview will examine the effects of perceived autonomy on teacher satisfaction, professionalism, and commitment to the profession.*

*KeyWords: Teacher autonomy; literacy; literacy assessment; technology; curricular decisions; secondary schools*

## **Introduction**

Over the past 150 years, teachers have experienced scant autonomy in much of their instructional decision-making. Surveillance over autonomous behavior has always been a fundamental component of state educational systems, even while teachers have tried to resist or mediate this domination (Smaller, 2015). Teachers believe that they are best qualified to make decisions about classroom procedures since they are most familiar with their students' needs, interests, and abilities (Elmore, 1987). Research has found that schools in which teachers are empowered to make professional choices with support from administrators correlate with higher teacher retention rates (Guarino, Santibanez, & Daley, 2006).

The growth of school accountability has resulted in considerable pressure that has transformed the paradigm of teacher autonomy (Strong & Yoshida, 2014). Teacher autonomy is a common link that emerges when investigating job satisfaction, motivation, professionalism, and empowerment in the educational field (Brunetti, 2001; Pearson & Moomaw, 2006). Autonomy is also related to teacher retention (Horng, 2009) and morale (Galton & MacBeath, 2008). Yet over the past 20 years, federal and state governments have become instrumental in legislating what to teach and how to teach it. The dramatic expansion of high-stakes testing places teachers under immense pressure to abide by government mandates to prepare students for these tests (Allington, 2002).

In response to the increasing pressure to improve scores on mandated standardized tests, administrators sometimes turn to pre-packaged curricular programs that claim to be scientifically based and promise to increase achievement for all students. School districts adopt these pre-packaged commercial programs and implement costly professional development (Fang, Fu, & Lamme, 2004). Teachers are sometimes required to attend this professional development training by commercial publishers, who insist on *fidelity* to a particular program, resulting in a climate of unintended consequences for teachers and students (Amrein & Berliner, 2003). By *fidelity*, we refer to adherence to a program's requirements in a step-by-step fashion, turning classrooms into what Giroux (2010) calls a "dead zone," where there is a lack of self-reflection, critical thinking, and creativity. This type of classroom often requires teachers to deliver a particular program without taking the students, their prior knowledge, or their needs into account (Allington & Pearson, 2011). Not only do such programs result in student disengagement and reduction in learning, but they have a negative effect on teacher morale. Furthermore, teachers are less likely to further their professional expertise (Allington & Pearson, 2011; Fang, Fu, & Lamme, 2004).

Scripted reading programs, in particular, are replacing effective and creative teacher-designed instruction, changing the role of the teacher from professional to transmitter of information (Dresser, 2012). Commercially designed with claims of being scientifically based, these literacy programs demand highly controlled language and comprehension instruction (Milosovic, 2007).

In the present pilot study, we sought to discover middle and high school teachers' views of autonomy in their own districts, more specifically, their freedom to make curricular decisions and choices regarding literacy and use of technology in order to further student learning. Our research questions were:

1. How do teachers view themselves as participants in the decision-making process involving literacy instruction and assessment?
2. What kinds of print and technology resources are available in schools?
3. What choices do teachers have in selecting instructional materials?

### ***Teacher Autonomy***

In the scientific literature, scholars have defined teacher autonomy in different ways. Several researchers discussed teacher autonomy as teachers' perception of whether they control themselves and their work environment (Castle, 2004; Clement & Vandenberghe, 2000; Pearson & Hall, 1993), their role in decision-making regarding working conditions in the school environment (Friedman, 1999), or as the right to make specific decisions (Short, 1994; Pearson & Moomaw, 2005). Other researchers have conceptualized autonomy as the control that teachers have over the activities of their classroom (Lortie, 2002). Hargreaves, Berry, Lai, Leung, Scott, and Stobart (2013), described it as, "the capacity of the individual teacher, the exercise of that capacity or the affordances of discursive, institutional and systematic structures within which the teacher is located" (p. 23). Similarly, "teacher autonomy has been viewed as a more complex construct involving a certain kind of relationship between professional freedom and internal capacity" (Benson, 2010, p. 263).

It is commonly known that teacher autonomy is influenced by the teacher-administrator relationship. The literature refers to the term of *engaged autonomy* as one in which administrators allow teachers freedom to make decisions, at the same time supporting their needs (Gabriel, Day, & Allington, 2011). Others discuss teacher autonomy as the improvement of the teachers' role in decision-making regarding the regulation of working conditions and school environment, and the management of the human, financial and material sources (Friedman, 1999). Webb (2002) argues that

if teachers want to be considered professional individuals' then they must have the power and freedom in their professional practices. Yet, it is important to balance autonomy with effective management of school responsibilities (Anderson, 1987). Imbalance was evident from Torres' (2014) research, in which teachers whose ideas were inconsistent with their school's model resulted in conflict and affected their career decisions.

There is much research that supports teachers' need for a sense of autonomy, which can include freedom to make curricular implementation decisions (Benson & Huang, 2008; Ozturk, 2012). Roth and Weinstock (2013) discuss how principals' practices and policies can be considered environmental pressures and have the potential to undermine teachers' expertise. Environmental pressures can also arise from curriculum standards and governmental policy. Borg (2009) calls for classroom research that shows how teachers gain their professional autonomy. Shen, Leslie, Spybrook and Ma (2012) show that autonomy and appraisal are two critical factors of support that affect work quality. Dierking and Fox (2012) state that heightened teacher knowledge along with support from different levels can produce teachers with stronger voices and an increased feeling of autonomy in their classrooms.

In order to comply with state and federal mandates, many school districts have adopted scripted reading programs (Griffith, 2008; Milosovic, 2007). The transition from teacher-led to scripted instruction leaves teachers feeling overwhelmed and powerless. One example of scripted reading instruction, in particular, is READ 180. Yet in a randomized control trial of 312 students, researchers found little evidence to support the effectiveness of READ 180 for upper elementary and middle school students. Student outcomes did improve if the instruction (a) targeted moderate risk students scoring near the 40th to 45th percentile and (b) included both teacher-directed whole- group instruction and the three small group rotations. Despite these findings, there was no significant impact on spelling or oral reading fluency (Kim, Capotosto, Hartry, & Fitzgerald, 2011).

## **Literature Review**

Pearson and Moomaw (2005; 2006) examined the relationship between teacher autonomy and work satisfaction, professionalism, empowerment, and stress on the job. In a study of 171 teachers (37 elementary, 88 middle school, and 46 high school), researchers discovered that increased curriculum autonomy resulted in decreased on-the-job stress; however, there was no relationship between curriculum autonomy and job satisfaction. As hypothesized, increased general teacher autonomy resulted in increased empowerment and professionalism. The combination of increased

professionalism, empowerment, and job satisfaction resulted in a decrease in on-the-job stress. Autonomy did not differ across grade levels. The authors concluded that teachers need to have on-the-job decision making authority and control over their work environment if they are to remain in the profession.

Strong and Yoshida (2014) also studied teacher autonomy at both the elementary and secondary levels from three schools in Michigan. Using Friedman's (1999) Teacher Work-Autonomy Scale, data were gathered from 477 teachers. Results showed significant differences between the perceptions of elementary and secondary teachers. Elementary teachers scored higher in their perceptions of professional development, while secondary teachers scored higher in their perceptions of curricular autonomy. Both elementary and secondary teachers reported high levels of autonomy in the area of classroom management.

Greenway, McCollow, Hudson, Peck, and Davis (2013) interviewed nine special education teachers from four school districts about their views on evidence-based practices (EBP) and decision-making in instruction. Teachers indicated a lack of access to appropriate tools and an inability to locate relevant research and professional development as obstacles to EBP implementation, and they mostly associated EBP with packaged programs. However, these teachers also expressed a significant amount of autonomy and flexibility in their practice, yet with low accountability. Teachers regarded autonomy as both a strength and a weakness; they appreciated their freedom to work with students on individual needs, but they lacked access to the general curriculum, tools, and professional development.

Teacher autonomy also plays a significant role in the charter school setting. Malloy and Wohlstetter (2003) studied forty teachers in six urban charter schools and found that teachers possessed the freedom to make instructional decisions with regard to curriculum and instruction. They generally earned less money and had less job security, but they enjoyed their professional lives and the schools' education programs. Additionally, their research indicates that autonomy is dependent on the trustworthiness of the school climate. Gawlik (2007) also found that teachers who previously taught in traditional public schools had more autonomy in the charter school setting. All of the 40 teachers involved in this study agreed that they were more involved in decision-making than in public schools, particularly in the areas of curriculum, school budget, and personnel. However, teacher autonomy varied across schools, and autonomy often resulted in increased accountability, with teacher decisions being more closely scrutinized.

Martell (2010) examined teachers' attitudes and beliefs in an over-performing high school with top-down mandated curriculum for history and

social science. While teachers in the department were knowledgeable about the framework, they held consistently negative views of it and avoided using the framework because of their lack of input. Oztürk (2011) also studied teacher autonomy as a result of curriculum reform in a secondary history curriculum. Results indicated a lack of attention to teacher autonomy and little room for teacher input regarding the content, materials, and methods. The author argued that teacher autonomy was an essential component of the program's success.

Olivant's (2013) research involved ten K-6 grade teachers who were asked to describe if and how they were allowed to be creative in their teaching within their "high stakes testing" classrooms. Results showed that teachers perceived that the testing climate affected their ability to foster creative thinking and creativity in students, and limited the time teachers could allocate to meeting their students' individual needs. One 6<sup>th</sup> grade teacher stated, "I could never survive at (scripted curriculum) schools. They are going to try to peg me into a little format. I am not a format, I am a human... You don't want robotic people. You want people who think, and that's what our nation was founded on" (p. 122).

### ***Autonomy and Assessment***

The impact of high stakes testing has been known to affect teacher practices in negative ways, even though teachers generally use a variety of assessment tools within their own classrooms. Some have argued that accountability systems have corrupted the teaching profession into a system of reward and punishment, and a devaluing of pedagogical expertise (Darling-Hammond & McLaughlin, 1995; Shepard, 2008). Rothman (2004) suggested that alignment of test developers and practitioners to a common set of standards is a good starting point, but the culture of standardized testing disrupts the alignment process. From three underperforming schools in California, Stillman (2011) noted that unproductive tension developed when equity-minded teachers questioned and resisted prescriptive policies and assessments they found unacceptable. Yet when principals allowed for more teacher agency in raising test scores, teachers experienced "productive tension" (p. 134) that added to professional learning and improvements in instruction.

Similar issues were found in a study of 31 secondary teachers and 63 primary teachers teaching a wide spectrum of subjects in Hong Kong. Berry (2010) found that, while teachers used a variety of assessments, their choice of assessment strategies was highly influenced by external factors such as test preparation for standardized assessments, internal requirements of the school, parental expectations, and tight teaching schedules. These types of

issues are problematic because they detract from a valuable educational experience that aids in student understanding of subject knowledge and student motivation.

### ***Autonomy and Technology***

With the implementation of the Common Core, technology integration into all content areas is expected (Common Core State Standards Initiative, 2010). Teaching students to think critically using technology while providing instruction to whole groups, small groups, and individuals is another expectation (Strickland, 2012). The College and Career Readiness Anchor Standard for Reading, number seven, states that students should be able to understand and interpret information obtained through media and be able to explain it (Common Core State Standards, 2010).

One aspect of teacher autonomy is the decision to use information communication technologies (ICTs) in the classroom. Stolle (2007) observed and interviewed 16 secondary teachers in various content areas to discover how they viewed the effects of ICTs on teaching and learning, and the connection between those views and their classroom literacy practices. They found that teachers faced tensions, fears, and uncertainties about access to and benefits of technology. Similarly, Hutchison and Reinking (2011) explored the perceptions of 1,441 K-12 teachers on their integration of ICTs into literacy instruction. Although teachers considered ICTs to be important, there was a clear lack of activities associated with 21<sup>st</sup>-century literacy, as advocated by the NCTE standards (National Council of Teachers of English, 2008). Perceived obstacles included lack of access to technology and technical support, lack of professional development for technology integration, lack of time to teach computer skills and prepare lessons involving ICTs, and the amount of time that must be devoted to high-stakes testing. Kale and Goh (2012), in a study of teachers' use of Web 2.0 in 161 middle and high schools, found similar drawbacks, though they also noted that workload and standardized curriculum were significant factors that inhibited teachers' use of collaborative technologies.

Other research has indicated hindrances such as scheduling conflicts and equipment malfunctioning in schools (An & Reigeluth, 2011; Wright & Wilson, 2011). Inan, Lowther, Ross, and Strahl (2010) suggested that teachers are likely to meaningfully use technology in classrooms if it matches their pedagogy, while Kale and Goh (2012) found no significant connection between teaching style and technology integration.

Even more recently in the 2015 Speak Up national findings, 54% of school leaders said that motivating teachers to use the resources available in better ways was very difficult. Then, when they were asked what teachers

needed, 57% of them said teacher training about how to use technology within instruction. When looking at descriptions of how teachers in different grades, content areas, or with varying years of experience use technology, interesting differences were noted. Game-based instruction was more likely provided by elementary teachers. Teachers in the fields of computer science, art, and language were making their own videos for instruction most often. Teachers using a flipped classroom were more likely to use simulations while newer teachers used videos found online more often (Speak Up, 2015).

To add to that, the Pew Research Center conducted a study that demonstrated that 83% of people that have a government job have some technology training compared to only 50% of people that work for small businesses. Moreover, 87% of the people with college degrees sought to learn on their own when compared to 60% of the people with a high school degree or less (Horrigan, 2016). This indicates that, regardless of the field people are in, if they have a college degree and are employed, they are likely to be engaged in technology training as part of lifelong learning. This demonstrates the importance of teachers learning about, and using, technology as part of their instruction.

Based on past literature, teachers have varying levels of autonomy, related to the type of school, grade level(s), and subject(s) taught. Yet, there seems to be a dearth of research on autonomy that involves literacy. Hence, we felt compelled to discover if teachers have the resources and freedom to implement research-based literacy practices, literacy assessments, and use of technology. As noted by Pearson and Moomaw (2005), teachers need to be regarded as professionals who have the freedom to make prescriptive, professional choices about the services they provide. This pilot study gives voice to teachers' circumstances regarding those freedoms.

## **Methods**

To answer the research questions, a team of researchers designed a survey for middle and high school teachers. It included questions about literacy practices used in the curriculum, how much choice teachers have in practices they use, assessments used, the role of literacy in content area classes, and questions about the role of reading professionals in literacy development.

### **Focus Group**

The researchers utilized a focus group to test the items on the initial survey. The focus group involved 54 teachers from multiple school systems in Maryland who completed the first version of the survey during a pres-

entation at the State of Maryland Council of the International Literacy Association Conference. This initial survey was a paper/pencil version.

The focus group's results indicated that the assessments used were predominantly state mandated assessments and those from book publishers. Although certified reading specialists or reading teachers conducted the majority of the reading instruction for struggling students in these schools, the teachers reported that published reading series or scripted programs were used for both language arts instruction and support for struggling readers. As a result, only half of the teachers felt that the instruction met the students' needs. All of the teachers shared that technology was not an integrated part of their reading curriculum and that little hardware or software were available to use in their classes.

Because these surveys were completed at a state reading conference, we assumed that the school systems represented were those that supported literacy efforts since they supported their teachers attending the conference. The results of these surveys, therefore, helped us to revise the wording of the survey questions. We determined that we needed more questions about technology use since a lack of technology integration was a major focus group finding. We also realized that we could gather a larger, more diversified teacher sample if we conducted the survey online.

### ***Pilot study***

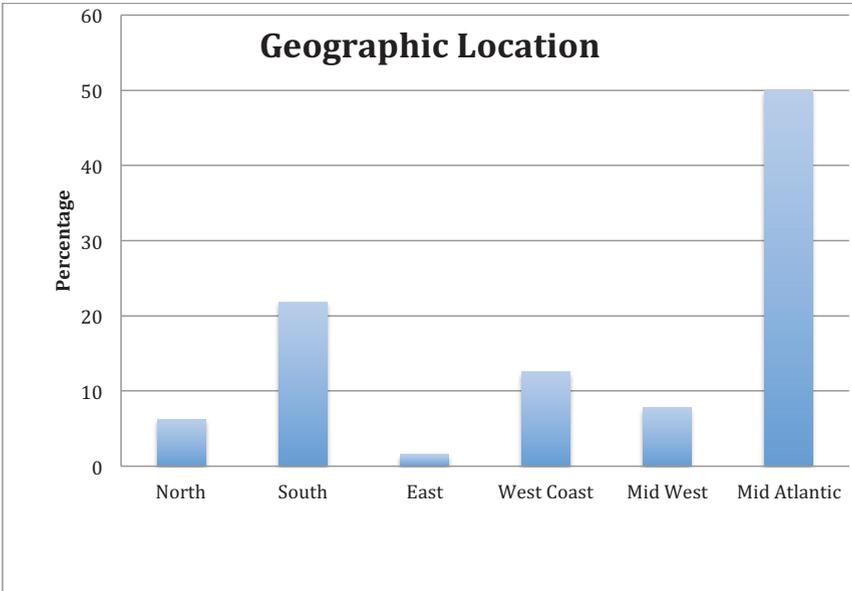
The revised survey was converted to a Google Form and posted online where it was publically accessible to anyone with the URL of the site. The survey consisted of eight questions focused on curriculum, assessment, and technology, that were designed for all teachers to answer. One question targeted reading/language arts teachers with a request for an explanation of their response (See Appendix A for survey). We invited secondary teachers in six diverse locations in California, Maryland, New York, South Carolina, Wyoming and Texas to respond to the survey. In addition, participating researchers sent out email invitations to secondary teachers in their geographic area with a link to the survey, and asked these teachers to forward the email invitation to their colleagues. We also solicited responses from teachers in graduate courses in reading and content areas, professional development school sites, conferences, and on professional listservs. We used this snowball sampling to invite teachers from a variety of settings.

### ***Participants***

One hundred educators from across the United States responded to the online survey. Google Forms collated the responses into an Excel file. Demographic data were analyzed using the sorting capabilities of Excel. The survey elicited multiple responses to most items, so in many cases there

were more than 100 responses, particularly for literacy instruction, assessment and technology availability. Items designated for either content area teachers or reading teachers garnered fewer than 100 responses. Respondents identified themselves as teaching in urban (39%), rural (13%), and suburban (44%) locations. However, it is important to note that only 64 of the 100 respondents indicated a geographic location.

Figure 1. Geographic Location of Respondents



Fifty-five percent of the respondents taught in the middle grades (6-8), 33% taught in high school, defined as grades 9-12, 10% taught in K-8 schools, and 2% taught in “other” types of grade configurations, for example an intermediate school housing sixth and seventh grades. In terms of participants’ role in schools, there were a wide variety of responses, with many respondents fulfilling multiple roles. Half of the respondents identified themselves as content area teachers, with five of those specifying English language arts as the content area. Five respondents identified themselves as content area teachers and reading teachers, and 19 identified their role as reading teachers, some in combination with reading specialist (four) or literacy coach (two). Two respondents were special education teachers, one was an ESL teacher and three were librarians, one of which was also responsible for technical education. One respondent identified as

reading teacher, reading specialist, and special projects teacher, a quasi-administrative position. Fifteen percent of the respondents served in more than one role in their positions.

### ***Data analysis***

Survey data were uploaded into Nvivo 10, a qualitative data software management program, and coded using the defined response choices from the survey. Based on the number of responses to each of the overall prompts, percentages for different responses were calculated. Results were then categorized into three major areas of interest: autonomy in curriculum (survey items 1, 5, 6, 7, 8, 9, and 10), autonomy in assessment (survey item 4), and autonomy in technology (survey items 2 and 3).

## **Results**

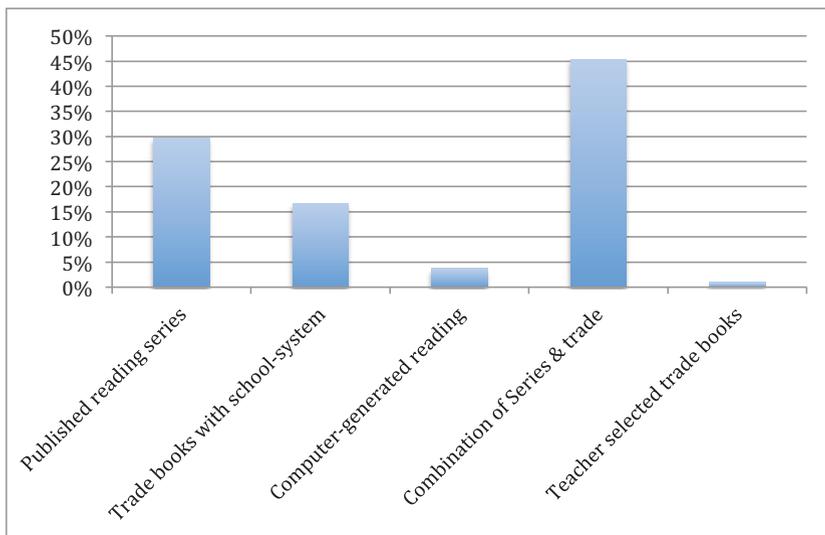
### ***Autonomy and curriculum – Teachers as participants?***

Questions elicited information about the reading curriculum as well as the content area classroom curricula. With respect to the reading curriculum, we asked questions about who chooses the curriculum, who delivers the curriculum, what comprises the curriculum, and how independent reading is encouraged. We had 171 responses to the question about who chooses the curriculum. Choices were generally made by the school districts, but in some locations students were allowed to choose selections to read in class.

In terms of who delivers reading instruction for adolescents, nearly half of the respondents (46%) indicated that certified teachers, as opposed to certified reading teachers or reading specialists, delivered reading instruction. Twenty-three percent of the respondents indicated that reading instruction was delivered by a combination of certified and non-certified teachers.

We also asked about how schools encourage independent reading for adolescents. Respondents indicated a wide variety of ways to encourage adolescents to read, including weekly scheduled library periods (19%); school-provided classroom libraries (17%); book clubs, including those in content area classrooms and after school (15%); school-wide incentives (11%); school facilities like the library or computer room open for student use before and after school (23%); and mandatory reading time, including Drop Everything And Read (5%).

Figure 2. Curricular Materials in Reading/Language Arts

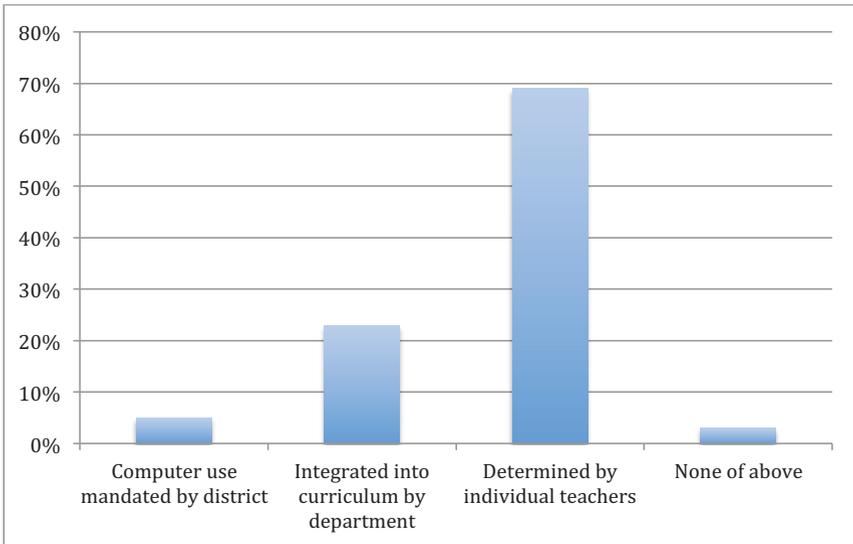


Items related to assessment garnered more responses than most other areas with indications that adolescent literacy is assessed with various - measures including state assessments (83%) and assessments designed by publishers (29%). Sixty-six percent of the respondents indicated that assessments were individually administered, with 47% reporting that scores for phonics, vocabulary, and comprehension were available. Only two percent of the respondents indicated that single assessments, usually state assessments, were used to assess literacy. These percentages exceed 100%, as 98% of the respondents indicated two or more assessments.

### ***Autonomy and technology resources available***

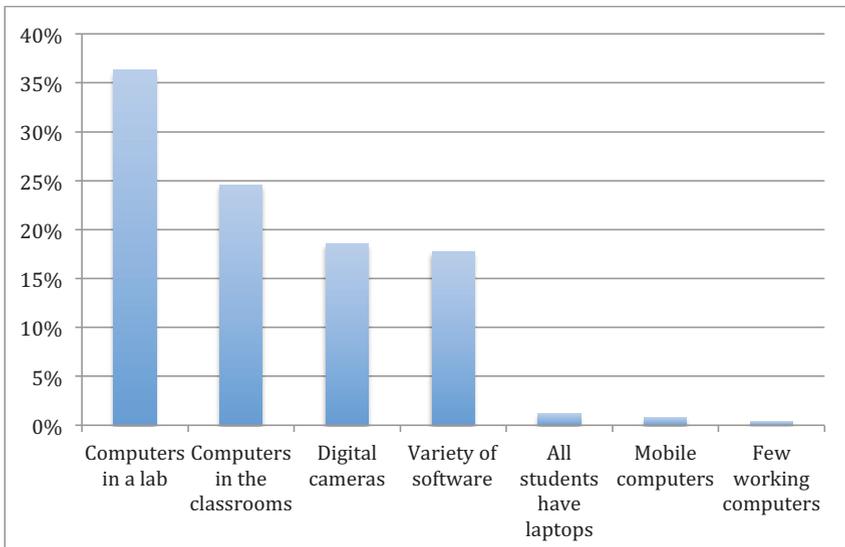
We asked about technology in the curriculum as well as the availability of technology. Respondents indicated that in the area of technology and computers, teachers had the most freedom in terms of using technology instructionally. Few districts mandate the use of computers. Approximately a quarter of the respondents indicated departmental determination of technology integration.

Figure 3. Computers/Technology Use in the Curriculum



Respondents reacted most strongly to prompts asking about technology availability. Only 36% had access to computers in labs and only 25% had computers in their classrooms.

Figure 4. Technology Availability



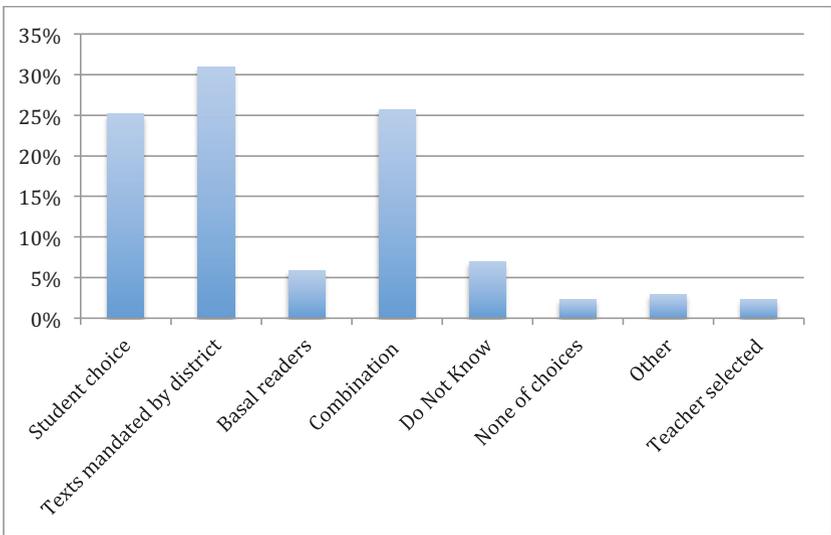
Digital cameras and a variety of software were generally available to between 15% and 20% of the teachers responding to this survey. Very few students in schools of the respondents had their own laptops or access to laptop carts.

***Choice of instructional materials***

Content area teachers responded to questions about the textbooks and materials that comprise the curriculum. Fifty-seven percent indicated that textbooks were chosen by the school system. Far fewer were selected by departments (21%) or by individual teachers (12%). Ten percent of the content area teachers indicated other sources of curricular materials, but declined to specify the source of these. Content area teachers reported that schools and districts (42%), departments (19%), or individual teachers (35%) selected ancillary materials. Based on the respondents to our survey, content area teachers have more freedom to determine ancillary instructional materials than do reading teachers.

With respect to the reading/language arts curriculum, most of the respondents indicated that they used a published reading series, either alone or with in combination with trade books chosen according to a district curriculum. Only 1% of the respondents indicated that teacher-selected trade books comprised the curriculum. Respondents who indicated that teachers were able to select curricular text (2%) taught in private schools.

Figure 5. Reading Curriculum



## **Summary**

Overall, the data showed a low level of teacher autonomy regarding choice of classroom curricular materials and assessments, but in the realm of technology, individual teachers had more freedom to determine instructional use of technology. However, only a quarter of the respondents had computers available in their classrooms. Nearly 70% of the responses to this survey asserted that for adolescents, certified and non-certified teachers, but not teachers who are specifically credentialed in literacy, deliver reading instruction.

### ***Limitations***

Based on the results from this pilot research, limitations need to be considered. Since we combined some demographic questions, the information about teachers' location (urban, suburban, or rural), educational context (public, private, alternative, magnet), or the educational level of that context (K-8, middle school, junior high, or high school) was incomplete. Choices for the geographic area of the United States were also incomplete, with some teachers not making a choice. Another limitation is that only those teachers who had the URL of the survey could respond to it. The addition of interviews or classroom observations would have provided triangulation for data derived from the survey.

Teacher responses were only intended to draw out teacher views of their roles in the decision-making processes within schools. The survey questions did not address issues of teacher attitudes, stress, or job dissatisfaction. However, gathered information was meant for future use in creating a new survey that includes those elements.

## **Implications**

Through this research, we found a general lack of engaged teacher autonomy, as defined by Gabriel, Day, and Allington (2011). There were several disconnects between what teachers would choose to do in their classrooms, and what they are actually empowered to do. We know from past research that teachers hold negative views toward systems that devalue their expertise and stifle their creativity in teaching (Martell, 2010; Olivant, 2010). We also know that teachers feel frustrated when mandated curricula prevent them from individualizing instruction. Moreover, the efficacy of programs can depend on how teachers use them when providing instruction (Kim, Samson, Fitzgerald, & Hartry, 2016).

Because of the limitations of this research, we cannot conclusively state that the participating teachers are dissatisfied with their jobs. Our purpose was to survey a pool of teachers to see how much autonomy they have in

teaching, assessment, and technology, and whether technology is available for instructional purposes. These results provided us with vital information that will facilitate designing an instrument to collect specific information about job satisfaction and instructional choices that benefit students. We will distribute the refined survey to a wider population of teachers in various regions of the United States. Additionally, we will solicit a subgroup of participants from the pool of surveyed teachers for focus group interviews. These could be conducted online synchronously or asynchronously, depending on the participants' locations and availability. Interviews will further enable us to collect richer data on the opinions, experiences, and perceptions of teachers' roles as decision makers, as well as insights into unique perspectives and challenges specific to school districts and within content areas.

Increasing the decision-making power on the part of teachers is not without caveats. We understand that this power alone will not automatically improve student performance on standardized tests. Content area teachers must be educated so that they understand the epistemology and linguistic forms of the content areas they teach (Shanahan & Shanahan, 2014; Shanahan & Shanahan, 2008). Teachers must teach students discipline-specific strategies to comprehend complex text in multiple subject areas (Moje, 2007; Shanahan & Shanahan, 2008; Siebert & Draper, 2008). Lee and Spratley (2010) report that many high schools with large numbers of struggling readers focus intervention programs on generic reading strategies and vocabulary development rather than focusing on discipline appropriate literacy practices with diverse texts in specific content areas. Discipline appropriate literacy practices are complex and embody the epistemology and linguistic forms used in the various disciplines (Houseal, Gillis, Helmsing, & Hutchison, in press). This indicates a need for professional development and instructional coaches to help teachers choose appropriate literacy strategies within their disciplines.

There is much growth in the field of adolescent literacy but not enough in classrooms (International Literacy Association, 2012b). If districts do not place a high priority on technology, they deprive students of interpreting texts in digital formats. From Hutchinson and Reinking's (2011) research, we learned about issues that impede the use of technology, but, as they indicated, now is the time for administrators and policymakers to acknowledge their role in expanding the use of technology in schools. Districts need to allocate money for resources, including updated computers and software, and for professional development in that area also. Teachers should play a major role in securing these resources.

Perhaps the most important implication of this research is that more research is needed in this area. Our pilot survey was only a first step toward addressing teacher autonomy regarding best practices in literacy and technology at the middle and secondary levels. A future survey and focus group interview might enable us to see the bigger picture of why districts support, or suppress, teacher autonomy. It may also help us to examine the effects of empowerment or non-empowerment on teacher satisfaction, professionalism, and commitment to the profession.

We are not advocating that teachers have total control over the curriculum or curricular goals and materials. However, in the current atmosphere that privileges the curriculum over students, teachers need the flexibility to consider students' needs, abilities, and prior knowledge as they enact the curriculum.

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## **Appendix A: Adolescent Literacy Needs Survey**

The following questions are part of a collaborative research project being conducted by researchers at universities in California, Maryland, South Carolina, Texas, and Trinidad. Your responses are anonymous; no identifying information is being collected in addition to the demographic information located at the end of the survey. The survey should take no more than 15 minutes of your time. Your responses to this survey constitute your consent to participate in this research. Thank you!

### **1. School System Reading Curriculum**

Indicate which of the following are part of the adolescent reading curriculum of your school system:

- Students are allowed to choose selections to read in class.
- Students must read texts mandated by the school district.
- Students must use basal readers.
- A combination of the options checked above
- I do not know about the reading curriculum in our school system
- None of these [explain in Other]
- Other:

### **2. Technology in the Curriculum**

How is technology use included in the curriculum at your school?

- Computer use is mandated by the district
- Computer use is integrated into the curriculum by each department
- Computer use is decided by individual teachers.
- None of the above
- Other:

### **3. Technology Availability**

What kinds of technology are available in your school? Check all that apply.

- Computers in a lab
- Computers in the classrooms
- Digital cameras
- Various types of software [please list in Other]
- Other:

#### **4. Assessment of literacy**

Indicate the types of assessment that are used to identify the reading needs of adolescents in your school system [check all that apply].

- State assessment
- Assessments designed by a book publisher
- Assessments that report different scores for phonics, vocabulary and reading comprehension
- Individually administered assessments
- None of the above.
- I do not know.
- Other:

#### **5. Reading Instruction for Adolescents**

Reading instruction for adolescent in your school or school system is delivered by:

- Certified reading specialists
- Certified reading teachers
- Certified teachers
- A combination of certified and non-certified teachers
- Other:

#### **6. Reading/Language Arts Teachers ONLY: Answer this question**

Indicate which of the following are used for reading instruction of adolescents in your school or school system:

- A published reading series - if this is the case, indicate the title of the reading series in the next question.
- Trade books with a school-system developed curriculum
- Computer-generated reading instruction - if this is the case, please indicate which software package you are using in the next question
- A combination - please explain in the next question
- Other:

#### **7. Explanation for Answer Above**

Please explain your answer above in the space provided:

**8. Content Area Teachers ONLY: Answer the next two questions**

Indicate which of the following are used for your specific content area:

- Textbooks and/or a published series chosen by the school system
- Textbooks and/or published series chosen by the department
- Textbooks and/or published series chosen by individual teachers
- Other:

**9. Additional Materials - CONTENT AREA TEACHERS ONLY**

Indicate which of the following are used for your specific content area:

- Supplemental books/texts with a school-system developed curriculum.
- Supplemental books/texts and other resources with a school system developed curriculum.
- Supplemental books/texts and other resources selected by the department
- Supplemental books/texts and other resources selected by the teacher
- None of the above

**10. Independent Reading**

Independent reading is encouraged in your school by the following [check all that apply]

- Library periods each week where students can choose books to borrow
- School-wide reading incentive programs
- Classroom libraries throughout the school provided by the school.
- Book clubs used in content area classes.
- Book clubs offered after school.
- Computer labs and/or library open before or after school for student use
- None of the above
- Other:

**Demographic 1: Role in Secondary Schools \***

Please indicate all of the following that describe your role in secondary schools:

- District Administrator
- School Administrator
- Reading Teacher
- Content Area Teacher
- Reading Specialist
- Literacy or Learning Coach
- Parent

**Demographic 2: Grade Level \***

Please indicate which of the following grade levels you teach or have responsibility for:

- Sixth grade
- Seventh grade
- Eighth grade
- Ninth grade
- Tenth grade
- Eleventh grade
- Twelfth grade
- Alternative School
- Other:

**Demographic 3: School Description \***

Which of the following describes your school [check all that apply]

- Middle school with grade 6-8
- K-8 school
- Junior high school with grades 7-9
- High school with grades 9-12
- Public school
- Private school
- Parochial school
- Charter school
- Zone school
- System-wide magnet school with competitive admission
- Other:

**Demographic 4: School Location \***

Check all of the following that describes the location of your school

- Urban
- Rural
- Suburban
- North United States
- Middle Atlantic United States
- Southern United States
- Central United States
- Mid-West United States
- West Coast United States
- Other:

\*Required question



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