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# Preparing Elementary Educators to Teach Reading: An Exploratory Study of Preservice Teachers' Evolving Sense of Reading Efficacy

Andrea M. Kent

*University of South Alabama, akent@southalabama.edu*

Rebecca M. Giles

*University of South Alabama, rgiles@southalabama.edu*

Mary Hibberts

*mfk701@gmail.com*

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# Preparing Elementary Educators to Teach Reading: An Exploratory Study of Preservice Teachers' Evolving Sense of Reading Efficacy

## Abstract

Teacher educators must acknowledge and consider the nature of reading efficacy and its developmental progression if they are to design and deliver programs that produce individuals moving toward being competent and confident teachers of reading. Ninety-two candidates in varying stages of a K-6 teacher education program responded to the Reading Teachers' Sense of Efficacy Scale. Data analysis using ANOVA and Fisher's LSD post-hoc comparisons revealed student teachers (Tier 4) had higher overall perceived reading teacher efficacy ( $M = 131.96$ ,  $SD = 12.45$ ) than those in the first semester methodology courses (Tier 2) ( $M = 117.68$ ,  $SD = 16.43$ ),  $p = .001$  and the second semester of methodology courses (Tier 3) ( $M = 121.52$ ,  $SD = 13.61$ ),  $p = .005$ . Additionally, Tier 4 preservice teachers had significantly higher perceived reading teacher efficacy than those in both Tier 2 and Tier 3 for 9 individual scale items ( $p < .05$ ). The perceived increased efficacy is largely credited to positive mastery experiences during the final internship semester.

## Keywords

Reading, Efficacy, Preservice teacher, Teacher preparation

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## **Preparing Elementary Educators to Teach Reading: An Exploratory Study of Preservice Teachers' Evolving Sense of Reading Efficacy**

**Andrea M. Kent** University  
of South Alabama  
[akent@usouthal.edu](mailto:akent@usouthal.edu)

**Rebecca M. Giles**  
University of South Alabama  
[rgiles@usouthal.edu](mailto:rgiles@usouthal.edu)

**Mary Hibberts** University of  
South Alabama  
[mfk701@gmail.com](mailto:mfk701@gmail.com)

### **Abstract**

Teacher educators must acknowledge and consider the nature of reading efficacy and its developmental progression if they are to design and deliver programs that produce individuals moving toward being competent and confident teachers of reading. Ninety-two candidates in varying stages of a K-6 teacher education program responded to the Reading Teachers' Sense of Efficacy Scale. Data analysis using ANOVA and Fisher's LSD post-hoc comparisons revealed student teachers (Tier 4) had higher overall perceived reading teacher efficacy ( $M = 131.96$ ,  $SD = 12.45$ ) than those in the first semester methodology courses (Tier 2) ( $M = 117.68$ ,  $SD = 16.43$ ),  $p = .001$  and the second semester of methodology courses (Tier 3) ( $M = 121.52$ ,  $SD = 13.61$ ),  $p = .005$ . Additionally, Tier 4 preservice teachers had significantly higher perceived reading teacher efficacy than those in both Tier 2 and Tier 3 for 9 individual scale items ( $p < .05$ ). The perceived increased efficacy is largely credited to positive mastery experiences during the final internship semester.

**Keywords:** reading, efficacy, preservice teacher, teacher preparation

### **Introduction**

There is widespread consensus that a quality reading teacher in every elementary classroom is critical (Duncan, 2011; International Reading Association, 2010; U. S. Department of Education, 2002). Learning to read is arguably a child's most crucial academic achievement, while teaching reading is perhaps a teacher's most complex and challenging endeavor. Accordingly, considerable time and effort have been devoted to identifying the essential components of preparation programs that produce teachers who teach reading well (International Reading Association, 2010). Equal in importance to identifying the abilities needed to be an effective reading teacher, however, is understanding preservice teachers' perceptions of these abilities. Since teacher education programs play an important role in the development of teacher candidates' self-efficacy (Pendergast, Garvis & Keogh, 2011), teacher educators should acknowledge and consider the nature of reading efficacy and its progression during the teacher preparation program. This study was designed to explore elementary preservice teachers' sense of reading efficacy at various points throughout an elementary teacher preparation program.

## Theoretical Framework

### Role of Higher Education

While there are many strong teacher education programs throughout the United States, differences among approaches to teacher preparation and recent graduates' views of their preparation exist. Though there is some overlap in approaches to teaching reading, there are generally two approaches that are advocated, a phonics approach and a whole language approach (Adams, 1995). The phonics approach focuses heavily on the sound-symbol relationships to reading words accurately and fluently. The whole language approach focuses more heavily on context, rich involvement with literature, and conveying a meaning-making message. Evidence supports that a combination of approaches may yield the strongest results, and there is no conclusive evidence that a single approach is consistently better than the other. There is also no data supporting that one approach is consistently implemented in the United States more than another, but there are considerable data suggesting that teacher qualifications make a difference in outcomes regardless of the curriculum or approach that is implemented (Snow & Juel, 2004).

Levine (2006) reported that 62% of new teachers report feeling underprepared for the realities they face in the classroom. Though research is insufficient on what specific elements contribute to high quality teacher education programs (NCATE, 2010), the following points are evident:

- 1) candidates who are well prepared have a positive impact on student achievement;
- 2) well-prepared teachers are more likely to be career teachers; and
- 3) teacher preparation programs contribute to the knowledge and skill development of future teachers.

The best programs focus on beginning teachers' readiness to practice independently by providing them with a high quality training program focused on meeting the needs of all students (Duncan, 2011). Regardless of the exact instructional method or materials used, it is clear that quality teaching makes a difference in student learning (Darling-Hammond, 2006; 2007; 2009; 2012; International Reading Association, 2010). It is with this foundational knowledge that institutions of higher education seek to create and refine teacher preparation programs to develop high quality, effective teachers in all content areas, particularly in the area of reading.

### Preparing Preservice Teachers to Teach Reading

Largely, teachers in elementary schools enter the profession through the gateway of an undergraduate teacher preparation program (International Reading Association, 2003). In these programs, there has been an increased emphasis on the teaching of reading as preservice teachers are working to learn both the theory of teaching reading as well as how to apply research-based best practice. While colleges and universities with approved licensing programs employ diverse approaches to preparing elementary teacher candidates with the expertise needed to teach reading, the process typically entails some combination of methods courses in the theories and pedagogy of teaching reading along with some opportunities for applying their learning in public school classrooms under the tutelage of

mentor teachers. Quality teachers of reading are those who are “knowledgeable, strategic, adaptive, responsive, and reflective” (International Reading Association, 2003, p. 1). Therefore, it may be stated that teacher preparation programs have a responsibility to graduate new teachers that have been given the opportunity to learn and develop the characteristics of quality teaching of, at a minimum, an emerging educator.

At the turn of the century, the International Reading Association, the world’s largest organization of reading professionals, convened the National Commission on Excellence in Elementary Teacher Preparation for Reading Instruction in an effort to identify common characteristics of excellent reading teacher preparation programs and the effectiveness of their graduates in terms of classroom practice and student achievement (International Reading Association, 2010). Key research findings from this study included that teachers prepared in quality reading preparation programs:

- are more successful and confident as they begin teaching;
- are more effective in creating a rich literacy classroom environment;
- are better at preparing their students to read;
- are better at engaging students in reading (International Reading Association, 2003).

Further, this research study concluded that the critical features of excellence in reading teacher preparation programs consist of a comprehensive curriculum, field experiences under the tutelage of excellent models, a vision of high quality instruction, resources to support the vision of high quality, a responsive curriculum for individual candidates, autonomy to continually revise the program for the betterment, a learning community of stakeholders including program faculty and public school personnel, and continuous assessment for the purpose of program improvement (IRA, 2010).

Building on that research, the International Reading Association (2007) further identified six essential features for creating and sustaining programs that are excellent at preparing teachers to teach reading. First, the content of the literacy courses should be developed from an integrated body of research focusing on developing good readers and how teachers meet the instructional needs of their students. Second, the faculty that teach the literacy courses must be committed to the implementation of effective instruction and instructional techniques. Third, field experiences must be established that foster the integration of theory and practice with excellent mentor teachers. Fourth, diversity must be embraced as candidates are provided with the opportunity to develop an awareness of diversity as well as how to teach diverse students in various settings. Fifth, assessment must be used to make revisions to the curriculum and program development. Finally, teacher education programs must operate with a vision that great teachers truly impact the future (IRA, 2007). An examination of these six elements acknowledges that a specific method for teaching reading is not recommended. As a result, great variation exists in the practices of quality programs sharing these attributes.

### **Teacher Efficacy**

Teacher efficacy, founded in the social cognitive theory of Albert Bandura (1997), is defined as “beliefs in one’s capabilities to organize and execute the courses of action required to

produce given attainments” (p. 3). The importance of efficacy in teaching is evident as Bandura continued to develop and defend the idea that personal beliefs in our abilities impact our behavior, motivation, success, and failure (Bandura, 1982, 1986, 1993, & 1997). A study published by Ashton (1984) built on Bandura’s work to include the extent that teachers feel they are capable of teaching their students the specified material and the extent to which their students can learn the material. Based on this premise, examining the impact of teacher preparation on teacher efficacy becomes essential. It may be postulated that efficacy directly impacts teacher behavior (Henson, 2001a), thus relating to candidates’ own sense of efficacy (Anderson, Greene, & Loewen, 1988) as well as student achievement (Anderson, Green & Loewen, 1988; Moore & Esselman, 1992; & Ross, 1992) and motivation (Midgley, Feldlaufer, & Eccles, 1989). To accurately assess teacher efficacy, researchers should account for variation across disciplines and student populations (Hoy & Miskel, 2008).

A positive teacher efficacy has been linked to many encouraging student outcomes. For example, efficacious teachers tend to work persistently with struggling students, refer fewer students for special education testing, and take risks with methods of instruction (Allinder, 1994; Gibson & Dembo, 1984; Meijer & Foster, 1988; Podell & Soodak, 1993). Further, Evans and Tribble (1986) found a higher professional commitment for efficacious preservice teachers.

### **Teacher Efficacy Development**

One of the most powerful influences on efficacy has been identified as mastery experiences (Henson, 2001a, Hoy, 2000). Mastery experiences, identified by Bandura as one of four specific sources of efficacy beliefs (Pajares, 2002), may be described as direct encounters with success as a result of an intentional effort. It is the direct feedback of the mastery experience that has the potential to impact efficacy. For example, a preservice teacher’s efficacy may increase if they work with a student in a laboratory-type setting and believes their actions lead to student learning; observes an experienced teacher’s implementation of strategies to bring about learning success; is reminded of teaching skills they have developed and provided with suggestions for improvement by a mentor teacher; or becomes nervous about a teaching opportunity that results in anxiety (Silverman & Davis, 2009). However, not all mastery experiences impact efficacy as the feedback must be filtered through one’s personal thought processes. Therefore, research examining the processes that build efficacy is critical to changing behavior that builds teacher efficacy.

Henson (2001a) noted that long term designs that measure efficacy and change in efficacy are nearly absent in the literature. At best, research is inconsistent with some studies indicating that efficacy may increase over time, while others suggest efficacy may decrease over time. Hoy and Spero (2005) found that the efficacy of new teachers declines when they begin teaching, largely due to the realities of confronting the complexities of teaching.

### **Efficacy Beliefs of Preservice Candidates**

Studies have found that preservice teacher efficacy beliefs have been link to how they feel about their students and the control they have when teaching (Woolfolk & Hoy, 1990). Low preservice candidate efficacy was linked to control, extrinsic motivation, and a pessimistic view of students’ motivation. However, candidates who reported having a high efficacy were rated more positively by their supervising teacher on teaching, classroom management, and questioning strategies (Saklofske, Michaluk, & Randhawa, 1988). Some research points to the impact that course work and field experiences have on personal and general teaching efficacy, with general teaching efficacy increasing during methods courses, yet declining

during student teaching (Woolfolk & Hoy, 1990; Spector, 1990). This is likely due to the realization of the complexities involved in teaching as a result of total immersion in the teaching process and preservice candidates' limited abilities to coordinate the many required tasks at once. Feelings of being overwhelmed may result and negatively impact candidates' efficacy of their teacher self.

## **Methodology**

A quasi-experimental posttest only design was used to determine the impact of preservice teachers' perceived efficacy related to the teaching of reading as they progressed through a newly created K-6 Teacher Education program. A pretest was not administered to avoid testing threat, where taking a test affects subsequent testing by increasing participants' performance as a result of their familiarity with the test items rather than any actual treatment. Researchers involved in this study were employed at the participating institution and were coordinators of the new program, one in capacity of the coursework and the other in the capacity of the field component. The participants were selected as a convenience sample of candidates enrolled in the new program. In an effort to graduate new teachers better prepared to meet the teaching demands of all students, state standards for both general education and special education, i.e. students identified as having a disability, were merged into a single set of coursework and field experiences. To graduate, candidates were required to meet the state knowledge and ability standards for both Elementary and Collaborative Teaching, making them eligible for both certifications upon successful completion of Praxis II testing requirements.

The participants involved in the study were at various stages in the teacher preparation program. The stages are explained as follows:

- Tier 2 is candidates' first semester in candidacy, whereby the students have passed initial state testing requirements, have met minimum program grade point average requirements of 2.75 on a 4.0 scale, and have passed a state required background check. Candidates are in the second semester of their third year of university coursework and are routinely labeled as juniors in terms of hours completed in higher education.

During Tier 2, candidates take introductory method of teaching courses two days each week and are placed in a school where they complete their field requirements for three days each week.

- Tier 3 is the second semester of methods courses. Candidates are in their first semester of their fourth year of university coursework, and are routinely labeled as seniors in terms of hours completed in higher education.

Candidates must successfully complete Tier 2, both in coursework and fieldwork to progress to Tier 3. During Tier 3, candidates engage in advanced methods coursework for two days each week and continue their field experience for three days each week.

- Tier 4 is synonymous with student teaching. Candidates must successfully complete Tier 2 and 3, maintain their grade point average, pass 2 additional required state tests, in order to begin student teaching, which is also known as internship.

Candidates are in their second semester of their fourth year of university coursework. If they are successful, they will graduate with a bachelor of science in education and will be recommended by the university for teacher certification, that is awarded by the State Department of Education.

The research questions that guided this study were as follows:

1. Is there a change in preservice teachers' perceived sense of efficacy for the teaching of reading as they progress through their last three semesters in the K-6 Teacher Education Program? (Note: During the final three semesters of the program, preservice teachers take two semesters of methods courses specifically in reading and are able to apply their knowledge in their field placement.) Specifically,
  - a. Is there a significant difference in the overall perceived efficacy for teaching reading between preservice teachers having completed Tiers 2 and 3?
  - b. Is there a significant difference in the overall preservice teachers' perceived efficacy for teaching reading between Tier 3 and Tier 4?
  - c. Is there a significant difference in the overall preservice teachers' perceived efficacy for teaching reading between Tier 2 and Tier 4?
2. Is there a change in preservice teachers' perceived sense of efficacy on specific items related to the teaching of reading as they progress through their last three semesters in the K-6 Teacher Education Program? Specifically,
  - a. Is there a significant difference in the perceived efficacy for teaching reading on specific scale items between preservice teachers having completed Tiers 2 and 3?
  - b. Is there a significant difference in the perceived efficacy for teaching reading on specific scale items teaching reading between Tier 3 and Tier 4?
  - c. Is there a significant difference in the perceived efficacy for teaching reading on specific scale items teaching reading between Tier 2 and Tier 4?

## Participants

The participants in this study were 92 preservice teachers (25 juniors and 67 seniors) at a college of education in a southeastern university. The college is classified by the Southern Association of Colleges and Schools as a Level VI institution, and by the Carnegie Foundation for the Advancement of Teaching as a Doctoral/Research Intensive University. All participants were K-6 Teacher Education majors and met all state department of education mandates (minimum standards and field experience/internship requirements) to be recommended for dual certification in both Elementary and Collaborative Teaching upon successful completion of the program and satisfactory PRAXIS 2 test scores in both areas. As a result, they were assigned both a regular and special education mentor teacher each semester and evenly divided their field experience hours between regular and special education settings. Table 1 provides the program course progression by tiers along with the total number of field experience hours. Tier 1 preservice teachers were not included in this study as they had not achieved the status of candidacy. During pre-candidacy, candidates are simultaneously allowed to take courses outside the college of education. It was the researchers' intent to examine the impact of the combination of rigorous coursework and

intensive field experiences on preservice teachers' perceived sense of efficacy as they matriculated throughout their program.

**Table 1.** K-6 Course Progression by Tiers

	<b>Courses</b>	<b>Field Experience</b>
Tier 1 (18 hours) Pre-Candidacy	Microcomputing Systems in Education Education in a Diverse Society Human Growth and Development Evaluation of Teach and Learning Health and Movement Education Arts in the Elementary Classroom	20 hours
Tier 2 (17 hours) Introductory Methods	K-6 Education Foundations of Reading Instruction Teaching Social Studies Learning and Behavioral Disorders Behavioral Management Classroom Management 1(1 hr.) Field Experience (1 cr. hr.)	200 hours
Tier 3 (17 hours) Advanced Methods	Teaching Mathematics Teaching Science Teaching Reading Partnerships in Special Education Intellectual and Physical Disabilities Classroom Management 2 (1 hr.) Field Experience (1 hr.)	250 hours
Tier 4 (12 hours) Internship	Student Teaching EEC (6 hrs.) Student Teaching Collaborative K-6 (6 hrs.)	525 hours

### **Literacy Courses**

Primarily, there are two reading methods courses—Foundations of Reading Instruction and Teaching Reading, that are centered on theories of teaching reading, literacy assessments, the essential components of teaching reading as defined by the National Reading Panel (2000), and strategies for teaching writing. In addition to the two reading methods courses, in an effort to help candidates synthesize theory and practice as part of their culminating experience, candidates also participate in 3 days of intensive professional development related to the state's reading initiative during Tier 4. There is also a focus on threading the teaching of literacy throughout the curriculum, in both the general and special education methodology courses. Assessment is taught as the focus for differentiation of instruction in order to meet the instructional needs of all students.

### **Field Experiences**

The participants were assigned in cohorts to schools in one of the 50 largest urban school districts in the United States. Sixteen schools were jointly selected by college of education

and school district administrators for participation in this program. Selection was based on the leadership in the school, as well as each school's capacity to mentor and induct new teachers into the profession in both content knowledge and in professional dispositions. Each of the participating schools has very diverse populations in terms of ethnicity, socio-economic status, and academic needs.

Candidates remained in the same school for the three consecutive semesters encompassing Tier 2, Tier 3, and Tier 4 and completed a 10-day opening school experience. Each semester, candidates worked with a team of teachers under the direction of two lead mentor teachers, both a general education teacher and a special education teacher, and a university supervisor. As previously noted, candidates were required to split their field hours between both general education and special education. Candidates' field experience assignments in Tier 2 and 3 were directly related to standards taught in course content in effort to apply theory taught in method courses. In Tier 4, candidates were demonstrating their ability to meet program standards, including a minimum of twenty solo teaching days.

Specifically for the literacy courses, candidates were required to learn assessments, including an informal reading inventory whereby a student's reading abilities are individually assessed in word recognition, comprehension, and reading strategies; running records; and fluency assessments. The candidates were then required to implement the assessments with students, analyze the results, and work with individual students or small groups of students based on the results. In addition, they were required to monitor the progress of the students throughout the semester, and continue the cycle of analyzing the results and using the results to plan the instruction. Candidates were further required to teach literacy lessons that focused on phonemic awareness, phonics, comprehension, fluency, vocabulary, and the teaching of writing. University faculty, clinical faculty, and mentor teachers helped guide the development of the lessons and provided feedback after implementation. Along with the literacy skills, differentiation and technology were two essential components of the lessons that were developed.

## Procedures

The Teachers' Sense of Efficacy Scale (TSES) was created to examine three areas of general teacher efficacy—classroom management, student engagement, and instructional practices (Tschannen-Moran & Woolfolk-Hoy, 2001). Haverback (2007) adapted the TSES to examine teacher efficacy within the domain of reading by deleting the classroom management items and changing key words in the remaining 16 engagement and instructional practices items to make them reading specific. The resulting Reading Teachers' Sense of Efficacy Scale (RTSES) has been used and accepted in studies of preservice teachers' sense of reading efficacy (Haverback, 2007; Haverback, 2009; Haverback & Parault, 2011). The RTSES questions use the same nine-point Likert-like scale that was used in the original TSES, which lie on a continuum of 1-nothing, 3-very little, 5-some influence, 7-quite a bit, and 9-a great deal. Thus, the highest possible total score on the RTSES is 144 points. The RTSES was used as a posttest measure to assess perceived teacher efficacy within the domain of reading for all participants. The RTSES appeared to have good internal consistency,  $\alpha = .96$ . The research design of this study was a posttest-only design with nonequivalent groups.

A sample of 92 preservice teachers in varying stages of a K-6 teacher education program completed the RTSES at the end of the spring semester. Respondents were distributed

across the final three semesters of the program—Tier 2 Introductory Methods (n=25), Tier 3 Advanced Methods (n=44), and Tier 4 Internship (n=23).

Data were then analyzed using the Statistical Package for Social Sciences (SPSS) to determine if significant differences existed between Tier 2, Tier 3, and Tier 4 K-6 Teacher Education preservice teachers' overall RTSES scores as well as individual item means for all 16 items. The alpha value for comparison was set at .05 and 95% as the confidence level.

## Results

A one-way analysis of variance was conducted to evaluate the relationship between overall perceived reading teacher efficacy and program tier. The independent variable, program tier, included three levels: Tier 2, Tier 3, and Tier 4. The dependent variable was the perceived reading teacher efficacy, measured by total scores on the RTSES. The ANOVA was statistically significant,  $F(2,89) = 6.6, p = .002$ . The strength of relationship between perceived reading teacher efficacy and program tier, as assessed by eta squared, indicated that program tier accounted for 12.9% of the variability in perceived reading teacher efficacy.

Fisher's LSD post-hoc comparisons of the three tiers indicated that candidates in Tier 4 had higher overall perceived reading teacher efficacy ( $M = 131.96, SD = 12.45$ ) than candidates in Tier 2 ( $M = 117.68, SD = 16.43$ ),  $p = .001$ , and candidates in Tier 3 ( $M = 121.52, SD = 13.61$ ),  $p = .005$ . Overall perceived reading teacher efficacy scores from Tier 2 and Tier 3 candidates were not significantly different,  $p = .28$ .

Group mean scores from the 16 individual items were also compared (see Table 2) using 16 one-way ANOVAs. Twelve out of sixteen one-way ANOVAs yielded significant results ( $p > .05$ ), indicating that the item mean scores for three tier groups were not all equal on those questionnaire items. Fisher's LSD post-hoc comparisons revealed that candidates in Tier 4 had significantly higher perceived reading teacher efficacy than candidates in both Tier 2 and Tier 3 for items 1, 3, 4, 6, 7, 8, 10, 11, and 12 ( $p < .05$ ). There were no significant differences between Tier 2 and Tier 3 on those items. The remaining post-hoc comparisons of statistically significant ANOVAs indicated that candidates in Tier 4 had higher perceived reading teacher efficacy than candidates in Tier 2 for items 2, 9, and 16 ( $p < .05$ ). All other post-hoc comparisons were not statistically significant.

**Table 2**

Perceived Reading Teacher Sense of Efficacy Scale Means for Preservice Teacher Groups

RTSES Items (abbreviated)	Tier 2		Tier 3		Tier 4		F
	M	SD	M	SD	M	SD	
1. Help students think critically while reading.	7.16	1.21	7.31	0.96	8.26	1.01	8.07**
2. Motivate students who show low interest in reading.	7.28	1.31	7.82	1.17	7.82	1.21	5.53**
3. Get students to believe they can do well in reading.	7.72	1.67	7.8	1.07	8.52	0.79	4.08*

4. Respond to difficult questions from students about reading.	6.76	1.23	7.34	1.08	8.30	0.88	12.56**
5. Help students value reading.	8.00	1.15	7.89	1.15	8.43	0.79	2.03
6. Help to gauge student comprehension of reading skills you have taught.	7.28	1.31	7.63	0.97	8.43	0.73	8.08**
7. Craft good reading questions for your students.	7.20	1.38	7.68	0.96	8.26	0.96	5.67**
8. Foster student creativity while reading.	7.52	1.29	7.74	1.04	8.35	0.83	3.85*
9. Improve the understanding of a student who is failing reading.	6.80	1.55	7.39	1.20	7.91	1.31	4.19*
10. Adjust your reading lessons to the proper level for individual students.	7.28	1.10	7.59	1.09	8.22	0.90	5.00**
11. Use a variety of reading assessment strategies.	7.60	1.26	7.61	1.20	8.57	0.84	6.05**
12. Provide an alternative explanation or example when students are confused about reading.	7.40	1.15	7.61	1.02	8.22	1.09	3.80*
13. Assist families in helping their children do well in reading.	7.24	1.48	7.50	1.30	7.74	1.36	0.80
14. Implement alternative reading strategies in your classroom.	7.60	1.41	7.55	1.10	8.04	1.15	1.37
15. Provide appropriate challenges for very capable readers.	7.72	1.21	7.75	1.01	8.35	1.03	2.78
16. Get through to the most difficult students in reading.	7.12	1.45	7.48	1.00	7.96	1.11	3.11*

Note. \* $p < .05$ , \*\* $p < .01$ . Fisher's LSD post-hoc comparisons revealed that Tier 4 candidates had higher perceived reading teacher efficacy than Tier 2 and Tier 3 candidates for items 1, 3, 4, 6, 7, 8, 10, 11, and 12 ( $p < .05$ ). Tier 4 candidates had higher reading perceived teacher efficacy than Tier 2 candidates for items 2, 9, and 16 ( $p < .05$ ). All other post-hoc comparisons were not statistically significant.

## Discussion

An examination of the data revealed that the candidates' perceived efficacy increased from the beginning (Tier 2) to the end (Tier 4) of their program courses and fieldwork. While there was no statistically significant difference between the overall perceived efficacy for teaching reading of preservice teachers having completed Tier 2 and Tier 3, those who had completed Tier 4 had higher overall perceived reading teacher efficacy than both Tier 2 and Tier 3 candidates. This finding is in opposition to those reported by Plourde (2002), who found involvement in the student teaching semester did not increase preservice teachers' sense of personal efficacy for teaching science. Plourde credits specific negative influences

as deteriorating the preservice teachers' confidence over the course of their last semester. While it is generally accepted that mastery experiences have the strongest influence on perceptions of efficacy, it must be acknowledged that this influence can be positive or negative. The results of this study support that mastery experiences in which the individual experiences success contributed to improved perceived efficacy for the student teachers (Tier 4).

The programmatic design of the K-6 Teacher Education program is one that embraces both general and special education standards, wherein courses and field experiences lead to certification in both areas. It is interesting to note that the higher perceived reading teacher efficacy of Tier 4 preservice teachers occurred during the final semester as a university candidate during an internship where the expectation of merging theory with practice is evidenced in candidates application through teaching. It should be noted that in support of these findings, final assessment data from teaching observations completed by the university supervisors and mentor teachers also revealed that participants mastered the standards related to the teaching of reading.

The data from this study are consistent with the findings of Gao and Mager (2011), who reported a higher perceived sense of Personal Teaching Efficacy for teacher candidates in inclusive settings during advanced phases of their preparation. Similarly, Lancaster and Bain (2010) reported that preservice teachers who completed a field experience working with students who had inclusive education needs demonstrated increased teacher efficacy following the experience. These combined results seem to suggest that while initially challenging, over time working with special needs students has a positive impact on preservice teachers' view of their abilities to increase student learning. This is evidenced in the significant increase in perceived efficacy for two individual items (9 and 16) that refer to "a student who is failing reading" and "the most difficult student in reading" following increased field experiences with children receiving special education services. Although not significantly different, it is noteworthy that K-6 preservice teachers' perceptions of their ability to "provide appropriate challenges for very capable readers" showed a slight upward trend from Tier 2 to Tier 4, seeming to indicate an emphasis on working with all learners, not just those struggling.

Tier 4 preservice teachers had a significantly higher perceived reading efficacy than both Tier 2 and Tier 3 preservice teachers for three items (1, 6, and 9) related to reading comprehension. Interestingly, a study by the U.S. Department of Education's Institute of Education Sciences (2007), *Study of Teacher Preparation in Early Reading Instruction*, revealed that reading teacher preparation coursework is focused on phonemic awareness, phonics and fluency, and to a lesser degree, on meaning, while the field experience components were reported to have a stronger focus on comprehension. This may at least partially explain the increase in perceived reading efficacy for these items between Tier 3 and 4 preservice teachers, since the predominant difference in the two groups was the substantial increase in field experience for those in Tier 4.

### **Implications**

It is important for preservice teachers, new teachers, and experienced teachers to be aware of the impact of their efficacy on teaching and learning. There is not a one size fits all preparation program, and though it is nearly impossible for teacher education programs to

prepare candidates with all prerequisite knowledge and extensively develop every skill needed to meet the literacy needs of all students, elementary preservice teachers must progress toward being competent and confident teachers of reading as they near graduation. Attention to the factors that aid in the development and support of a strong sense of efficacy for preservice teachers appears to be worth the effort as once established, efficacy of experienced teachers seems difficult to change (Hoy, 2000).

Teacher educators must design programs of study, including coursework and fieldwork, to scaffold the developmental process of learning and applying theory in an effort to increase candidates' potential for success. Research has shown that there may be a connection to structuring opportunities for preservice teachers to watch as experienced teachers successfully facilitate effective learning opportunities for their students, which can result in a positive sense of efficacy for the preservice teacher because they were able to actively observe the process (Silverman & Davis, 2009). Additionally, a preservice teacher's sense of efficacy may improve through verbal persuasion when a university supervisor or mentor teacher brings to light some of the teaching skills the preservice teacher has gained and provides related feedback. Successful mastery experiences lead to positive teaching efficacy and ultimately result in positive teaching and learning opportunities for public school students. Conversely, unsuccessful mastery experiences lead to negative teaching efficacy, increasing the critical importance of a well-supported and beneficial culminating internship experience for preservice teachers.

Knowledge of reading teaching efficacy can help teachers reflect upon the way they plan literacy instruction, which allows opportunity for professional growth. Quality field experiences help preservice teachers obtain mastery experiences resulting in increased competence and teaching efficacy. As suggested by Rohrkemper and Corno (1988), it is important for teacher education programs to create simulated contexts and field experiences where candidates can apply their learning, get detailed feedback of their teaching strengths and areas for improvement, reflect on and learn from their mistakes, and repeat the process by continuing to teach. Implied in these implications is that the field experiences are scaffolded in terms of difficulty, complexity, and frustration in order to build a positive sense of efficacy.

Every student in every school deserves a quality teacher of reading. Oftentimes, students that are economically disadvantaged are lacking in basic reading, language, and English literacy skills attend low-performing schools (International Reading Association, 2010). New teachers often obtain positions in these schools, but lack the preparation to effectively meet the needs of these students, which negatively impacts their efficacy. This frequently leads to seeking employment in other schools or quitting the profession altogether. However, this study provides evidence that a carefully designed program of study, embedded in an urban field context where the candidates will likely obtain employment, can make a positive difference on a new graduate's efficacy for teaching reading to students who could be viewed as challenging by many new teachers.

As preservice teachers transition into new teachers, it is important for supports to be in place to help them develop and maintain a competent teacher identity. Research (Haverback & Parault, 2011; Weinstein, 1988) draws awareness to some preservice teachers' overly optimistic efficacy beliefs, leading to the possibility of experiencing negative efficacy as beginning teachers due to unrealistic optimism. Preservice teachers who have a high efficacy upon beginning their teaching careers, may become overwhelmed with the

realities and complexities of the classroom. Those who continue to feel incompetent are likely to leave the teaching profession. However, teachers who remain in the field appear to experience a rebound in their efficacy judgments (Weinstein, 1988). Administrators must provide new teachers with the opportunities to develop a sense of mastery through professional development, purposeful feedback, and opportunities for reflection.

### **Limitations**

As with any research study, there are limitations that should be acknowledged. In this study, the limitations were identified as follows:

- The instrument used to collect data was a survey instrument that was completed through self-report of the participants. Given this, participants could have potentially misrepresented their actual perception of efficacy to teach reading;
- Structured surveys with closed ended questions may have low validity when examining the affective variables;
- The design of the questions and the response set may not accurately reflect participants' perceptions;
- A convenience sample of participants was used in this study, thus, limiting the generalizability to a larger population;
- Conducting the study with more participants would strengthen the study's design; and
- While, this study was designed to measure efficacy between groups of preservice teachers, it may be beneficial to conduct a longitudinal study examining efficacy within a group of preservice teachers as they matriculate through the program.

### **Further Research**

Henson (2001b) identified the use of predominately self-report measures as a weakness in what is known about teacher efficacy. Hence, future efficacy research involving both preservice and inservice teachers should be conducted using direct observation and experimental studies to strengthen the research design.

Given that many preservice teachers progress through a program in cohorts, remaining together during coursework and in field experiences, research on collective preservice teacher efficacy, that measures a group of preteachers' beliefs on their capability to impact student achievement as a group (Goddard, Hoy, & Woolfolk, 2000), may also yield compelling data. The data could be used to determine program design for teacher education programs.

It is unclear whether the results of perceived increased efficacy in this study are due to increased knowledge as the candidates learned more about the teaching of reading each semester, the teaching of reading they engaged in or observed during their field experiences, and/or feedback from their university supervisor or mentor teacher regarding their teaching of reading. Therefore, it would be helpful to collect additional data related to these components to try and determine the impact of each of these on the perceived efficacy of preservice teachers.

Finally, longitudinal studies are needed that focus on teacher efficacy from preservice candidates through the induction phase of teaching. These studies could help assess the

impact of various teacher preparation programs on beginning teachers' efficacy, and provide information to teacher preparation programs on revisions that may be needed.

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