

The Role of Literacy Tutoring as a Method for Improving Pedagogical Knowledge, Skills, and Dispositions of Preservice Teachers

Peggy S. Lisenbee, Ph.D.
Texas Woman's University

Abstract

Preservice teachers participate in a variety of field experiences before student teaching. Tutoring field experiences offer a framework for preservice teachers to focus on teaching and assessing literacy skills needed to be an effective reading teacher. A small-scale research study focused on gathering qualitative data as preservice teachers tutored struggling second-grade readers. Observations of preservice teachers' learning environment, reflections following tutoring lessons and pre and post-concept maps offer data on preservice teachers' pedagogical content knowledge, skills, and dispositions. Conclusions about the critical role of field experiences, specifically tutoring, is an effective method for improving preservice teachers' preparedness to teach.

Keywords: *preservice teachers, literacy, tutoring, field experiences, pedagogy*

Preservice teachers construct a deeper and richer understanding of pedagogical content knowledge through their participation in a variety of field experiences associated with undergraduate academic coursework in teacher preparation programs. Moore (2003) shared "...that although preservice teachers learn a great many strategies and methods for teaching, often they 'do not learn how to discover in the specific situations occurring in everyday teaching, which methods and strategies to use'" (p. 32). Field experiences play a vital role in teacher education programs to prepare preservice teachers for classroom situations (Al

Otaiba, Lake, Greulich, Folsom, & Guidry, 2012; Burant, & Kirby, 2002; Moore, 2003).

Self-efficacy is a necessary disposition for teachers defined as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). Pendergast, Garvis, and Keogh (2011) explained the link between self-efficacy and teacher effectiveness as "an important motivational construct" leading to resiliency for teachers in the profession and in their ability to motivate all students to learn (p. 46). Field experiences embedded in methods and professional education coursework prior to

student teaching create feelings of self-efficacy and preparedness by developing stronger connections to content knowledge, theory, skills, and effective pedagogy (Al Otaiba, et al., 2012; Burant, & Kirby, 2002; Hascher & Hagenauer, 2016; Haverback & Parault, 2008; Haverback & Parault, 2011; Moore, 2003; Pendergast, et al., 2011; Wee, Weber, & Park, 2014).

In 2010, the International Reading Association (IRA) revised their standards, which guide evaluation of effective teaching criteria for literacy professionals. The six standards are foundational knowledge, curriculum and instruction, assessment and evaluation, diversity, literate environment, and professional learning and leadership (IRA, 2010). In 2017, the re-named International Literacy Association (ILA), added a new standard during discussion and revision of their 2010 standards to include addressing clinical and field experiences for literacy professionals (ILA, 2017). Hoffman et al. (2005) shared the importance of quality field experiences for preservice teachers to learn how to teach reading. Research focused on the effectiveness of field experiences to support knowledge and skills related to teaching reading made connections between quality field experiences and preservice teachers' construction of pedagogical content knowledge (Anders, Hoffman, & Duffy, 2000; National Reading Panel, 2000).

Tutoring field experiences prepare preservice teachers to complete literacy assessments and improve feelings of self-efficacy regarding their ability to provide specific reading skill intervention for struggling readers. Haverback and Parault (2008) suggested a lack of research regarding the relationship of self-efficacy to tutoring field experiences prior to conducting their research. Haverback and Parault (2008) found that "...tutoring field experiences, in particular, have been found to have a positive impact on preservice teachers' abilities to teach a particular content (e.g., reading) to the individual student and to put theory into practice" (p. 237). Leko

and Mundy's (2011) research on preservice teachers' beliefs found that preservice teachers' adapted their reading instruction more often following participation in multiple field experiences. This finding suggests an increase in preservice teachers' feelings of self-efficacy as they gain more confidence through practice during tutoring field experiences. Tutoring field experiences embedded in reading method courses for preservice teachers support a deeper construction and application of pedagogical knowledge, skills, and self-efficacy.

Using concept maps to organize knowledge about overarching concepts provides a graphic method to represent understanding. A core concept is arranged hierarchically with key elements connected to the core concept and subordinate elements connected to the key elements. The key elements connected to the core concept are analyzed as a stem. Subordinate elements connected to key elements are analyzed as a sub-stem. Concept maps analyzed in this manner offer evaluation tools measuring "the growth of and assessing student learning" (Inspiration Software, Inc., 2017, para. 8). The use of concept maps to review preservice teachers' growth in knowledge provides a source of data for research.

This research study represents a small-scale effort to qualitatively document elements of engaged teaching which motivate tutees to participate in the tutoring learning environment, construct adjustments in pedagogical knowledge and skills while increasing preservice teachers' self-efficacy during tutoring field experiences. The research design began with research questions created to identify themes analyzed from observing tutoring field experiences, preservice teachers' reflections of their tutoring experiences, and pre and post-tests of preservice teachers' understanding of reading method concepts. Analysis will provide changes in preservice teachers' pedagogical knowledge, skills, and feelings of self-efficacy. Implications about the role of tutoring field experiences to prepare preservice teachers are discussed.

Theoretical Framework and Objectives

A constructivist theoretical framework is "... based on the assumption that people create knowledge as a result of interaction between existing knowledge or beliefs and new knowledge" (Rakes, Flowers, Casey, & Santana, 1999, p.3). Constructivism is based on creating, not transmitting, knowledge through the processes of assimilation and accommodation during authentic experiences (Branscombe, Burcham, Castle, & Surbeck, 2014; Grace, 1999; Moore, 2003; Nanjappa & Grant, 2003; Rakes, Flowers, Casey, & Santana, 1999). Teacher preparation programs offer opportunities for preservice teachers to implement constructivist teaching and learning practices allowing them to actively construct an understanding of knowledge and skills through field experiences.

Research on constructivist pedagogy and teacher effectiveness supports embedding field experiences in reading method courses to assist preservice teachers in applying course concepts expressed through student learning objectives and aligned with ILA standards. Student learning objectives create a qualitative framework to assess before, during, and after field experiences to analyze preservice teachers' constructions of knowledge, skills, and feelings of self-efficacy.

This research study focused on observations of preservice teachers' representations of course requirements in an undergraduate literacy assessment and intervention course. Preservice teachers were required to complete literacy assessments to inform their tutoring lesson plans. Each tutoring lesson plan was required to include a read aloud, instructional books, word study, interactive literacy games, a writing activity, and reading goals. Three reflection questions were required each week to share information about tutoring strengths and weaknesses to continuing construction of effective methods for tutoring.

The overall research goals of this study were to examine the role of tutoring as a method to improve each of the following: (a) preservice teachers' pedagogical knowledge, (b) preservice teachers' teaching skills, and (c) preservice teachers' self-efficacy during field experiences embedded in a reading methods course. Preservice teachers' practice teaching one-on-one with struggling readers was analyzed by gathering data from open-ended observation notes written by the university supervisor during tutoring experiences, preservice teachers' reflections submitted after each tutoring field experience, and pre and post concept maps. The three research questions were:

1. What demonstrations of pedagogical knowledge and teaching skills were observed during tutoring? What elements were used by preservice teachers to increase tutees' motivation and feelings of community?
2. What adjustments in pedagogy and feelings of self-efficacy were reported by preservice teachers in their tutoring reflections?
3. What conceptual changes were reported by preservice teachers from their active construction of knowledge and skills after ten weeks of tutoring?

Methodology

Participants

Preservice teachers enrolled in an undergraduate, junior-level literacy assessment and intervention course were informed of the embedded field experience required in the course. Participants were 10 female, elementary education teacher candidates, referred to as tutors throughout this research, between the ages of 19 to 21. The tutors' demographics were more similar than diverse: one tutor was Hispanic, one tutor was Native American, and the other eight were Caucasian. All tutors were enrolled in a teacher preparation program at a private, research university surrounded by a large urban school district in a midwestern city.

The urban school district is the second largest in the state serving approximately 42,000 K-12 students.

An elementary school located on the north side of the university campus was chosen for tutoring since it housed a diverse population of students: 62% Hispanic, 18% Caucasian, 9% African American and 11% a mixture of Asian, American Indian and other ethnicities. Ninety percent of the students attending this elementary school were on the Free and Reduced Lunch Program, 40% were English language learners and during the previous year, 60% of third-graders were not able to read at grade level.

The second grade team leader for all three second-grade classrooms at the urban elementary school near the university conferred with her team to choose 10 second-grade tutees for this research. The team leader was informed that any second-grade student identified as reading below grade level was eligible for this research study. The 10 tutees ranged in age from six to eight. Seven tutees were female, six tutees were English language learners, and ten tutees were on the Free and Reduced Lunch Program. All 10 tutees were representative of the schools' overall demographics: six tutees were Hispanic, two tutees were Caucasian, one tutee was African American, and one tutee was Native American.

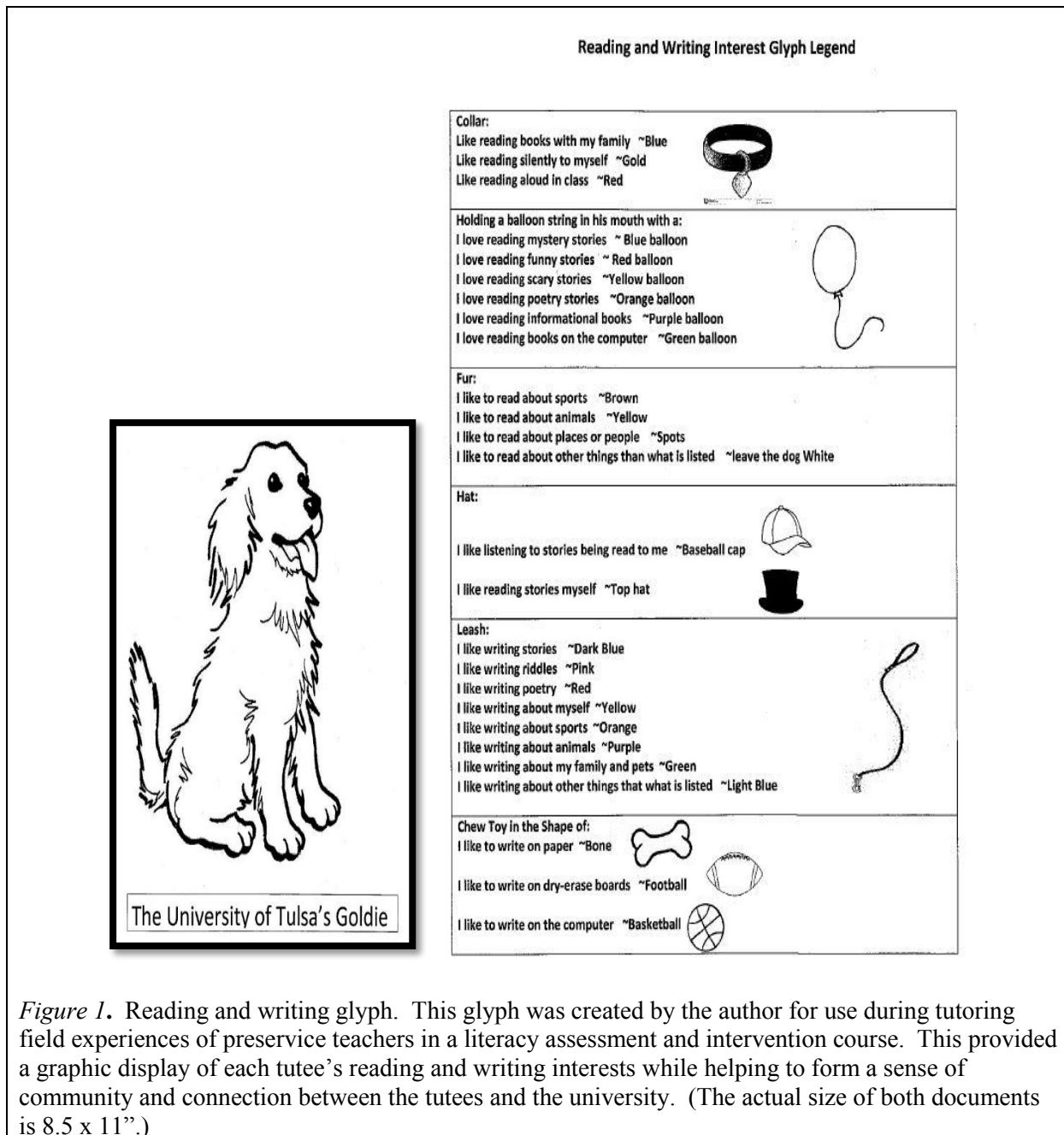
Data Sources

The 10 weeks of tutoring was conducted in the elementary school library for an hour each morning one day each week. The university faculty assigned to teach the literacy assessment and intervention course supervised all tutoring field experiences at the elementary school taking open-ended notes on two of the 10 tutor/tutee pairs each week. This observation schedule created one observation per tutor/tutee pair in the first five weeks and during the last five weeks. The university faculty copied all of the required literacy assessment documents for the tutor and tutee, a tutoring lesson plan template, the three reflection questions tutors need to

submit each week after tutoring, and a summary sheet to list the tutees' assessment data. The tutors were asked to place these documents inside of three-ring binders to create a tutoring notebook to use during the 10 weeks of tutoring.

Preservice teachers completed a pre-assessment of pedagogical knowledge and skills by filling out a concept map on "Reading Methods." This same concept map was completed at the end of the semester as a post-assessment to assess changes in knowledge and skills after 10 weeks of tutoring. Before the first tutoring session, the tutors met with the second-grade team leader from the elementary school to gather baseline reading skill data from previously completed literacy assessments, reading and writing interests, and behavioral information on each tutee. During the first two weeks of tutoring, preservice teachers used their tutoring notebooks to complete multiple literacy assessments to confirm the reading skills shared by the second-grade lead teacher. The assessments ranged from Graded Word Lists and Graded Passages from the Basic Reading Inventory (BRI), an Elementary Spelling Inventory from Words Their Way (WTW), multiple interest inventories from a Beverly DeVries textbook, and a reading and writing interest glyph using the university mascot (Bear, Invernizzi, & Templeton, 2015; DeVries, 2011; Johns, 2012).

Glyphs are used in classrooms to help create a feeling of community since students can visually see similarities and differences between them and their classmates. Glyphs are visual representations of information. The university mascot glyph used in the tutoring notebook was created by the university faculty to engage the tutees with the university as they illustrated their reading and writing interests. The completed glyphs were displayed on a tri-fold board, which was placed at the front of the library on tutoring days to welcome the tutees to their tutoring field experience (see Figure 1). Each glyph was posted on the tri-fold board next to a photo of



each tutor/tutee pair. (A photo was also given to each tutee to take home.) Figure 1 provides an illustration of the university mascot glyph created for students to use to display their reading and writing interests. The third to tenth

weeks of tutoring focused on each tutor planning individualized lesson plans concentrating on the specific phonological skills each tutee needed to practice. The required elements of each tutoring lesson plan included: rereading an easy book,

guided reading of an on-level book, word study games, instructional reading, a read aloud of a book above each student's instructional level by their tutor, and a writing activity. For closure of each tutoring session, tutors were required to write out a sentence strip of words for tutees to take home and review the goals for the tutoring lesson with the tutee to give to their second-grade teacher. The sentence strip and goals sheets were methods to include and keep the tutees' parents and teachers informed of the focus of each tutoring session.

Tutors were required to submit reflections based on assimilations and accommodations of pedagogical knowledge and skills made during each week of tutoring. These changes to their understanding resulted from experiencing one-on-one tutoring and then reflecting on their successes and difficulties each week. Reflection questions were written to provide an opportunity for tutors to focus on constructing their understanding while it provides an avenue for university faculty to provide constructive feedback. Tutors were required to reflect on these three statements each week:

1. Reflect on your accuracy in preparing your lesson for your tutee's reading skills this week. Explain your feelings of confidence in tutoring.
2. Share your strengths and weaknesses associated with your teaching this week using specific strategies related to reading/literacy. Explain a different strategy suggested by a peer/university faculty/ 50 Research-Based Strategies textbook (Antonacci & O'Callaghan, 2011) to use next week to support your tutee for any identified area of weakness.
3. Upon reflection, describe your reading/literacy goal for next week including evidence for why you chose this goal?

These reflections provide a lens for viewing the pedagogy employed by the tutors to create a positive, successful reading experience motivating each second-grade student to practice their reading skills.

Concept maps used at the beginning and end of a course provide a visual representation of elements related to a core concept. The 10 preservice teachers in this research study were asked to complete concept maps about "Reading Methods" on the first day of class in their literacy assessment and evaluation course. No information was given to the preservice teachers beyond asking them to add elements using circles and lines to show hierarchical relationships between and among elements associated with "Reading Methods." The difference between a preservice teachers' pre-concept map and their post-concept map offers a suggestion of growth between and among theoretical and pedagogical key and subordinate elements related to the "Reading Methods."

Analysis of Tutoring Field Experiences

When teacher education programs include field experiences within methods and professional education courses, there is potential to add valuable experience for preservice teachers to merge theory into practice before their student teaching semester. Anecdotal notes gathered during observations of tutoring field experiences, preservice teacher reflections of tutoring and pre and post-concept maps provided data about the role of literacy tutoring as a method to improve preservice teachers' knowledge, skills, and self-efficacy.

Observations

Observations of tutoring field experiences offered a glimpse into the learning environment tutors created for the tutees. A tri-fold board placed at the entrance to the library greeted tutees each week. The tri-fold board included photos of each tutor-tutee pair next to each tutee's completed mascot glyph. The visual representations of each tutees' reading

and writing interests illustrated by the mascot glyphs were posted to encourage a sense of community among the tutees since the tutoring sessions only met once a week. Tutors used the information gained from the mascot glyphs to motivate tutees by locating books of interest and providing writing prompts on topics of interest to each tutee.

Tutors brought small snacks each week for their tutee since it was mid-morning when they met for tutoring. The option for a snack alleviated any hunger issues which might interfere with the tutees' ability to focus on improving their reading skills. Tutors were tasked with bringing a bag of items to care for and extend the tutoring session such as Kleenex, hand sanitizer, iPad minis, small whiteboards with expo markers, sentence strips, a sharpie, extra file folder games, and a goals sheet. Each week, a sentence strip with words for the tutee to practice reading and a goals sheet were sent back to the classroom to inform the teacher and home to share with parents. Tutors were required to create individualized file folder games for their tutees so the tutees could practice specific reading skills. Tutors were allowed to use literacy apps for reading and writing in addition to file folder games for their tutees. Finally, tutors were observed locating the section in the elementary school library associated with books of interest for each of their tutees to encourage their interest in reading.

A tutoring extension which supported the sense of community during the tutoring experience was observed when the tutors created a whole-group, physical activity to practice a reading skill outside on the playground. An example of one physical literacy activity was when tutors placed cardboard tents with letters on them on the ground then asked tutees to kick balls in the direction of the correct cardboard tent after hearing a tutor utter a phoneme. Another physical activity observed was when tutors wrote sight words in a hopscotch grid then had tutees read the sight words as they played hopscotch. The engagement observed between

the tutors and tutees when they were outside practicing reading skills was significantly different than when the tutees were in the library.

The last week of tutoring provided an observation of tutors making a final connection with each other. The university faculty purchased a university t-shirt and a paperback book for each tutee to take home. The tutors gave each child a stamped envelope, pre-addressed to the university faculty so any tutee could practice their writing and remain in touch with their tutor over the summer. One child used the pre-addressed, stamped envelope in the next week to remain in touch with their tutor supporting the sense of community created during this field experience.

Reflections on Tutoring

Preservice teachers' reflections on their weekly tutoring experiences demonstrated an understanding of their strengths and weaknesses as a tutor. The required reflection questions focused preservice teachers' thoughts on their knowledge, skills, and feelings of self-efficacy as they assessed and taught children to read. Expressions of content were analyzed to determine common threads in each reflection and then sorted into three categories: knowledge, skills, and self-efficacy. Tutors' reflections were reduced to common themes identified from content analysis (see Table 1).

Content analysis provided a knowledge of the ability of preservice teachers to make accommodations in their understanding and construct a more effective method for their tutee to improve his or her reading skills. Reflections are best expressed using the voices of tutors, but identifying common themes provides a more concise method for sharing similar growth and experiences. During this research a tutor reflected, "I learned that it is important to have a contingency plan. It was so hard for me to think on the fly and determine what aspects of the lesson were less important and could be scrapped in favor of time."

Table 1

Content Analysis of Tutoring Reflections

Reflections about Knowledge	N	Reflections about Skills	N	Reflections About Feelings of Self-Efficacy	N
I like to offer a variety of interactive activities.	19	I can explain phonics to students better.	22	Confidence engaging with reading content.	34
I can select books and activities at instructional/independent reading levels.	15	I like to use literacy apps for iPads with tutees.	20	Tutoring is fun.	17
I understand the need to use multiple literacy assessments, multiple times, to provide valuable information on tutees reading skills.	14	I have learned to balance letting students struggle and offering scaffolding.	20	Feeling as if I am learning how to teach.	12
I understand phonics --vowels, CVC, digraphs, diphthongs, etc.	14	I am able to correct student's errors more effectively.	5	Having respect for others.	7
I like to teach reading strategies.	10	I like to include spelling activities with tutoring.	4	I am getting better at self-correcting issues while tutoring.	7
I am able to identify sounds in words to teach decoding strategies.	9	I can model the writing process for tutees.	4	Not easily frustrated while tutoring.	6
I understand the need to have students re-read books.	9	I enjoy modeling reading.	4	Good attitude about becoming a teacher.	5
I understand the importance of offering choices in books.	7	I like to use word sorts or file folder games to offer hands on activities.	4	Flexibility is important.	5
I am able to identify miscues during tutoring.	7	I can model the writing process for tutees.	3	I enjoy offering positive encouragement.	4
I understand I need to bring extra literacy activities in case I have to make adjustments during tutoring.	7			Modeling reading strategies.	3
I understand students may have other reasons for not passing assessments such as being hungry or angry.	3				

This quote was analyzed as an expression of knowledge and a common theme with 10 other comments similar to “I like to offer a variety of interactive activities.” Another tutor stated, “My goal for this coming session is to keep him more on task and find a good way to challenge him with games I utilize for reading practice on the iPad. I felt like the games I

chose for him were too simple, so I am going to play some more reading apps before next week to find some apps where I feel he is learning more on his level.” This quote was analyzed as an expression of skill and a common theme with eight other comments similar to “I like to use literacy apps for iPads with tutees.” Another tutor commented, “I enjoyed tutoring because I

was able to point out strengths, like expressive and accurate reading, and by doing that she felt more successful and capable of being a great reader.” This quote was analyzed as an expression of self-efficacy and a common theme with nine other comments similar to “Confidence engaging with reading content.”

Table 1 offers a quantitative and qualitative content analysis of expressions of knowledge, skills, and self-efficacy submitted by 10 tutors over the span of 10 weeks for a total of 100 reflections.

Concept Maps

Analysis of concept maps completed by preservice teachers before tutoring had an average of 2.3 stems and 2.1 sub-stems. Concept maps completed by preservice teachers after tutoring had an average of 6.3 stems and

14.4 sub-stems. The change between the pre and post-concept map assessments and knowledge of “Reading Methods” is noteworthy since there was a 37% increase in stems and 146% increase in sub-stems from pre to post assessments.

Overall, the concepts listed on the post-assessment concept maps included detailed vocabulary and multiple connections between and among elements related to reading methods. The distinctive change in preservice teachers’ concept maps after tutoring suggest the field experience allowed active construction of their understanding of theoretical and pedagogical content knowledge, skills, and self-efficacy. Figure 2 provides an example of one of the 10 preservice teachers’ completed pre and post-concept maps.

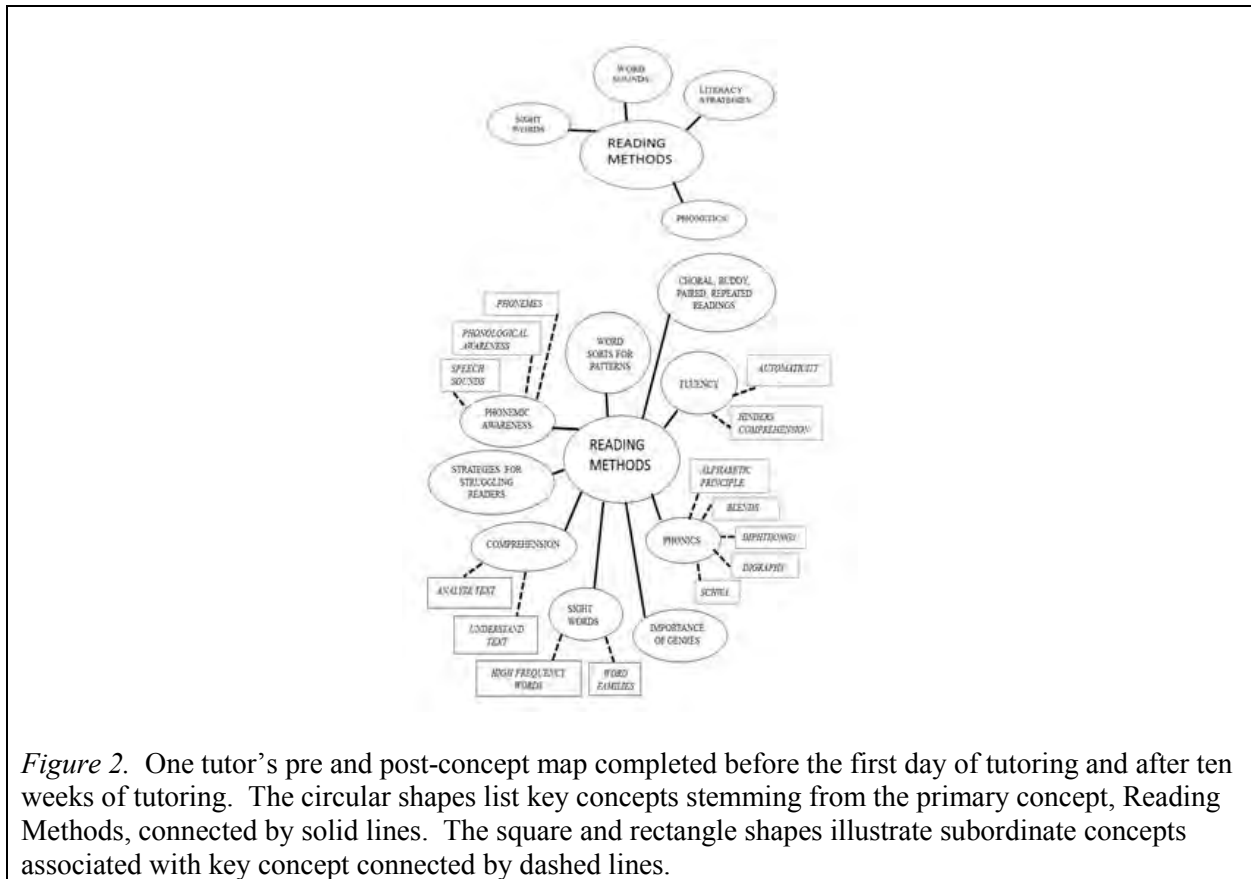


Figure 2. One tutor’s pre and post-concept map completed before the first day of tutoring and after ten weeks of tutoring. The circular shapes list key concepts stemming from the primary concept, Reading Methods, connected by solid lines. The square and rectangle shapes illustrate subordinate concepts associated with key concept connected by dashed lines.

Conclusions and Implications

Tutoring experiences in this research study began with observations of tutors creating a learning environment promoting motivation and a sense of community. The tutors developed a relationship with the tutees personally and professionally. Content analysis of reflections after tutoring each week identified tutors' focus on making improvements in their knowledge of effective tutoring practices. This analysis allowed identification of their strengths and weaknesses in tutoring skills and the types of character traits which will help them motivate students. Pendergast et al. (2011) completed research on motivation, teaching effectiveness, and self-efficacy, which supports these conclusions.

The most remarkable finding of this research study was the vast increase in knowledge shared by preservice teachers through their pre and post-concept maps. The growth in accurate information stemming from the concept "Reading Methods" was important since preservice teachers need to be able to practice using academic vocabulary when instructing students. Tutors' constructions of knowledge based on field experiences have a positive impact on their self-efficacy (Haverback & Parault, 2008).

Field experiences are an integral part of the foundation in teacher preparation programs. They allow new teachers to become effective professional educators and develop self-efficacy. However, from conversations with other teacher preparation program faculty, most teacher education programs embed the majority of field experiences for preservice teachers during the student teaching semester. Based on the data from this research study and support from the literature (Al Otaiba, et al., 2012; Burant & Kirby, 2002; Hascher & Hagenauer, 2016; Haverback & Parault, 2008; Moore, 2003),

teacher education programs might consider embedding more field experiences in methods and professional education coursework. Tutoring experience is invaluable in building self-efficacy for preservice teachers before graduating and teaching in their own classrooms.

This research study has some limitations to consider. This tutoring research was conducted as a one-on-one tutoring experience with a small sample of preservice teachers and second-grade students making the results ungeneralizable. The content analysis of tutors' reflections might be considered subjective since it is qualitative data. Also, the university faculty observations were completed using open-ended notes. A template of expected behaviors might be a better method for collecting observational data during tutoring field experiences.

The concepts, results, and reflections on the role of tutoring to improve preservice teachers' pedagogical content knowledge, skills, and self-efficacy are valid for this research study. Further research is suggested on tutoring field experiences and changes in preservice teachers' pedagogical content knowledge, skills, and self-efficacy related to the opportunity to participate in focused field experiences.

Preservice teachers' application of concepts discussed in university classrooms enhances during participation in additional field experiences before student teaching. Moore (2003) agrees that a focus on increasing field experiences before the student teaching semester offers opportunities to integrate theory into practice for preservice teachers. A shift towards the inclusion of specific field experiences embedded in methods and professional education courses is encouraged since it would offer authentic opportunities to construct an understanding of pedagogical content knowledge, skills, and self-efficacy.

References

- Al Otaiba, S., Lake, V.E., Greulich, L., Folsom, J. S., & Guidry, L. (2012). Preparing beginning reading teachers: An experimental comparison of initial early literacy field experiences. *Reading & Writing, 25*, 109–129. doi: 10.1007/s11145-010-9250-2
- Anders, P. L., Hoffman, J. V., & Duffy, G. G. (2000). Teaching teachers to teach reading: Paradigm shifts, persistent problems, and challenges. In M. Kamil, P. Masenthal, P.D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (3rd ed.), pp. 719–744. Mahwah, NJ: Lawrence Erlbaum Associates.
- Antonacci, P. A., & O’Callaghan, C. M. (2011). *Promoting literacy development: 50 research-based strategies for k-8 learners*. Thousand Oaks, CA: Sage Publications.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W.H. Freeman & Company.
- Bear, D. R., Invernizzi, M. R., & Templeton, S. (2015). *Words their way: Word study for phonics, vocabulary, and spelling instruction*. New York City, NY: Pearson Education.
- Branscombe, N. A., Burcham, J. G., Castle, K., & Surbeck, E. (2014). *Early childhood curriculum: a constructivist perspective*. New York, NY: Routledge Taylor & Francis Group.
- Burant, T. J., & Kirby, D. (2002). Beyond classroom based early field experiences: Understanding an “educative practicum” in an urban school and community. *Teaching and Teacher Education, 18*(5), 561-575. doi:10.1016/S0742-051X(02)00016-1
- DeVries, B. (2011). *Literacy assessment & intervention for classroom teachers*. Scottsdale, AZ: Holcomb Hathaway Publishers.
- Grace, M. (1999). When students create curriculum. *Educational Leadership, 57*(3), 49-52.
- Hascher, T., & Hagenauer, G. (2016). Openness to theory and its importance for preservice teachers’ self-efficacy, emotions, and classroom behavior in the teaching practicum. *International Journal of Educational Research, 77*, 15-25.
- Haverback, H. R., & Parault, S. J. (2008). Preservice reading teacher efficacy and tutoring: A review. *Educational Psychology Review, 20*, 237–255. doi: 10.1007/s10648-008-9077-4
- Haverback, H. R., & Parault, S. J. (2011). High efficacy and the preservice reading teacher: A comparative study. *Teaching and Teacher Education, 27*(4), 703-711. doi:10.1016/j.tate.2010.12.001
- Hoffman, J. V., Roller, C., Maloch, B., Sailors, M., Duffy, G., & Beretvas, S. N. (2005). Teachers’ preparation to teach reading and their experiences and practices in the first three years of teaching. *The Elementary School Journal, 105*(3), 267–287.
- International Literacy Association. (2017). *Standards for the preparation of literacy professionals 2017: Key shifts in roles and standards*. Retrieved from <https://literacyworldwide.org/docs/default-source/resource-documents/standards-chart.pdf>
- International Reading Association. (2010). *Standards for reading professionals—revised 2010*. Newark, DE: International Reading Association.
- Inspiration Software, Inc. (2017). *How to use a concept map to organize and comprehend information* (Teaching and learning with concept maps). Retrieved from <http://www.inspiration.com/visual-learning/concept-mapping>
- Johns, J. (2012). *Basic reading inventory: Pre-primer through grade twelve and early literacy assessments*. Dubuque, IA: Kendall Hunt Publishing.
- Leko, M., & Mundy, C. A. (2011). Understanding preservice teachers’ beliefs and their constructions of knowledge for teaching reading to struggling readers. *Kentucky Teacher Education Journal: The Journal of the Teacher Education Division of the Kentucky Council for Exceptional Children, 1*(1), 1-21.

- Moore, R. (2003). Reexamining the field experiences of preservice teachers. *Journal of Teacher Education*, 54(1), 31-42. doi:10.1177/0022487102238656
- Nanjappa, A., & Grant, M. M. (2003). Constructing on constructivism: The role of technology. *Electronic Journal for the Integration of Technology in Education*, 2(1), 38-55.
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, D.C: National Institute of Child Health and Human Development.
- Pendergast, D., Garvis, S., & Keogh, J. (2011). Preservice student-teacher self-efficacy beliefs: An insight into the making of teachers. *The Australian Journal of Teacher Education*, 36(12), 46-57.
- Rakes, G. C., Flowers, B. F., Casey, H. B., & Santana, R. (1999). An analysis of instructional technology use and constructivist behaviors in k-12 teachers. *International Journal of Educational Technology*, 1(2), 1-18.
- Wee, S. J., Weber, E. K., & Park, S. (2014). Early childhood practicum students' professional growth in the USA: Areas of confidence and concern. *International Journal of Early Years Education*, 22(4), 409-422. doi:10.1080/09669760.2014.911644