

Experiential Learning and Literacy: Preservice Teachers' Perspectives

Ramona T. Pittman
Theresa G. Dorel

ABSTRACT: In this study, we sought to determine preservice teachers' perceptions about participating in an experiential learning literacy program. A total of 86 preservice teachers participated in two hours of training and then tutored elementary students for a total of eight hours. The preservice teachers engaged in 10 hours of experiential learning through a community-based reading tutoring program. Following their experiences, the preservice teachers completed a survey and answered three open-ended questions that solicited their views about their training and tutoring. Overall, the preservice teachers perceived the experience to be positive to their literacy knowledge and skill development.

Key words: Literacy, Experiential Learning, Preservice Teachers



Dr. Ramona T. Pittman is an assistant professor in the School of Curriculum and Kinesiology at Texas A&M University-San Antonio. She has seven years of teaching experience in PK-12. Dr. Pittman teaches undergraduate and graduate courses in literacy and currently serves as program coordinator. She can be contacted at ramona.pittman@tamusa.tamus.edu



Theresa Garfield Dorel, Ed.D., earned her doctorate from the University of Texas at San Antonio and completed post-doctorate work in special education at Northcentral University. She currently serves as an assistant professor in special education and program coordinator at Texas A&M University San Antonio. She can be contacted at theresa.dorel@tamusa.tamus.edu

Experiential learning is traditionally used for field experiences in the latter part of a teacher candidate's program. Novice teachers reflect that they need more guided field-based opportunities working with specific populations (Smeaton & Waters, 2013). A community-based volunteer reading tutor programs provides an excellent avenue through which preservice teachers may gain one-on-one experience with students and develop personal skills for future teacher-student interactions.

Recent research has also found that many teachers do not have the foundational literacy skills to teach literacy effectively (Bos, Mather, Dickson, Podhajski, & Chard, 2001; Joshi et al., 2009; McCutchen & Berninger, 1999; Moats & Lyon, 1996; Spear-Swerling & Brucker, 2003). These studies have demonstrated that primary teachers have difficulty determining the most basic literacy skills, such as phonological and phonemic awareness tasks. The teachers' lack of basic literacy knowledge affects students' overall literacy performance. Phonological awareness refers to the way in which spoken language can be broken down and manipulated. It consists of a continuum of literacy skills from easiest (determining rhyming words and alliteration) to hardest (phonemic awareness).

Phonemic awareness refers to the way individual sounds can be broken down and manipulated. For example, the word *dog* has three sounds (/d/ /o/ /g/). A thorough understanding of phonological awareness and phonemic awareness can assist preservice teachers with developing students' decoding abilities. When teachers do not have a grasp of this knowledge, however, it makes it difficult to teach this skill to their students. Moats (1999), for example, argued that teachers should be able to count syllables, phonemes, and morphemes in words in order to provide effective literacy instruction. Research has shown that many university instructors are not equipped with the foundational literacy knowledge, such as the knowledge of phonemes and morphemes, to assist preservice teachers in learning these foundational skills (Joshi et al., 2009).

A teacher's lack of basic literacy knowledge will affect a student's overall literacy performance.

According to the 2011 National Assessment of Educational Progress at Grades 4 and 8 (NAEP) report, 67% of fourth graders were not reading at a level of proficiency (National Center for Education Statistics, 2011). NAEP is the only assessment used to determine how well students perform nationally on a literacy measure. Sixty-seven percent is an alarming number considering that when students reach fourth grade, they should move from Chall's (1983) stages of *learning to read* to *reading to learn*. At this time, many students become aliterate (also known as the fourth grade slump), which is when students' literacy scores decrease from third grade to fourth grade (Chall & Jacobs, 2003). Aliterate students are those students who can read, but choose not to. Being aliterate is different from being illiterate. Illiteracy is not being able to read and/or write. Because aliterate students are choosing not to read, they do not increase their vocabulary through reading (Nagy & Herman, 1987), and a strong vocabulary is essential for reading comprehension. It is pivotal, therefore, that students master the foundational literacy skills prior to fourth grade so that they become critical readers.

This study attempts to address teachers' lack of literacy preparation and their perceptions of assisting a struggling reader, in order to better prepare preservice teachers to enter a classroom with solid literacy skills that will help them cultivate a solid literacy base in their future classes.

The Experiential Learning Component

Preservice teachers enrolled in a foundational literacy course participated in a community-based reading tutoring program. This program, one of several community initiatives geared towards increasing literacy, was established to address the needs of struggling readers in Kindergarten through third grade at two inner city school districts. During the semester, the preservice teachers tutored two struggling students for 30 minutes each, once a week. The experiential learning commitment lasted for 10 weeks, giving the preservice teachers a total of 10 hours of hands-on intervention with struggling readers.

In the foundation literacy course, preservice teachers learn to teach reading through a bottom-up approach. The bottom-up approach requires students to begin with the letter-sound correspondences (bottom) and continue to build phonics-based skills that lead to extracting meaning from the text or comprehending (up) based upon their initial ability to decode words (Gough, 1972). The bottom-up approach requires reading to be taught systematically and explicitly. Teachers must learn to recognize that oral language is a prerequisite to reading instruction. It is important for young children to build their oral language so that when they begin to decode, they know the meaning of the words which they decode. For preservice teachers to be successful in the class, and ultimately become more effective teachers, they must understand how to teach students using the bottom-up approach, thus teaching a child to be phonologically and phonemically aware of the various ways that spoken language can be broken down and manipulated.

In addition, preservice teachers must learn how to teach students to map phonemes (smallest unit of sound) to graphemes (written representation of a sound). For example, /k/ is a phoneme that can be represented by various graphemes or spellings (cat, *k*ite, duck, *a*che). The mapping of the phoneme with the grapheme is called *alphabetic principle*. Once preservice teachers have an understanding of the alphabetic principle, they must understand how to teach word analysis and decoding to students. Instruction using the bottom-up approach is designed to teach students to eventually recognize words automatically. Automatic word recognition is required for students to be able to comprehend (Laberge & Samuels, 1974), and the ultimate purpose for reading is to be able to comprehend.

The emphasis on the bottom-up approach to teaching reading led the instructors of the foundational literacy courses to agree that the

experiential learning component would be vital to preservice teachers' understanding of the basic literacy skills. The experiential learning component uses the 2005-2008 Student Center Activities created by a team of educators at the Florida Center for Reading Research (2014). The activities focus around the five pillars of literacy: phonemic awareness, phonics, fluency, vocabulary, and comprehension. The Student Center Activities, therefore, provided the students an excellent opportunity to practice bottom-up literacy approaches.

During class, the instructor taught the preservice teachers about the five pillars using lectures, demonstrations, and in-class activities. In addition, the preservice teachers had to complete lesson plans on each pillar to demonstrate their understanding of the five components to effectively teach a child to

Teachers must learn to recognize that oral language is a prerequisite to reading instruction. It is important for young children to build their oral language so that when they begin to decode, they know the meaning of the words which they decode.

read. The knowledge from skills learned in class and from developing effective lesson plans allowed the preservice teachers to devise strategies to assist their assigned struggling readers with literacy acquisition alongside the use of the Student Center Activities. The focus of this process was twofold. First, the faculty members wanted to give the

preservice teachers an opportunity to practice literacy strategies with struggling readers in a way that was nonthreatening, thus allowing the preservice teachers an opportunity to practice on their own. Second, faculty members wanted to provide tutors for the community-based tutoring program to help with the overarching goal of improving literacy in youth, as outlined in the premise for the community-based tutoring program mission.

The goal of this study, therefore, was to determine the preservice teachers' perceptions about the practical application of foundational literacy skills in an experiential learning environment. We hypothesized that the preservice teachers would perceive the community-based tutoring program as a

positive and beneficial experience in learning to assist struggling readers.

Method

Participants

A total of 86 preservice teachers attending a university that consists of predominately nontraditional students were enrolled in a junior level foundational literacy course. A total of 77 students identified themselves as female, while one student identified himself as male. A total of eight students did not select either male or female for this question. A total of 60% of the students were in the Early Childhood-Sixth (EC-6) Certification Program, 25% of the students were in the EC-6 Bilingual Generalist Certification Program, 11% of the students were in the EC-12 Special Education Certification Program, 2% of the students were in an 8-12 Content Area Certification Program, and 2% of the students were enrolled in the Bachelor of Applied Arts and Sciences (BAAS) Program.

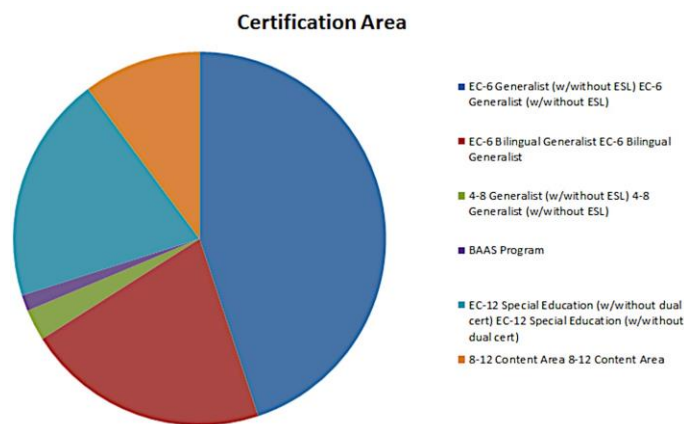


Figure 1. This figure illustrates certification areas of the preservice teachers.

A total of 52% of the preservice teachers had 0-1 years of experience in education, while 37% had 2-4 years' experience in education, 10% had 5-7 years' experience, and 1% had eight or more years' experience.

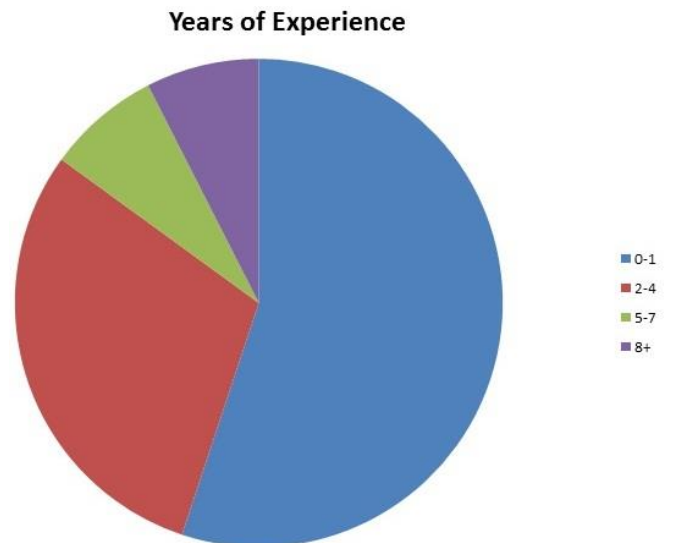


Figure 2. This figure illustrates years of experience in education.

Lastly, 37% of the students were between the ages of 20-24, 27% of the students were between the ages of 25-29, 10% of the students were between the ages of 30-34, 6% were between the ages of 35-39, 8% of the students were between the ages of 40-44, 4% were between the ages of 45-49, and 2% were 50 or older. Six percent of the students chose not to respond to this question.

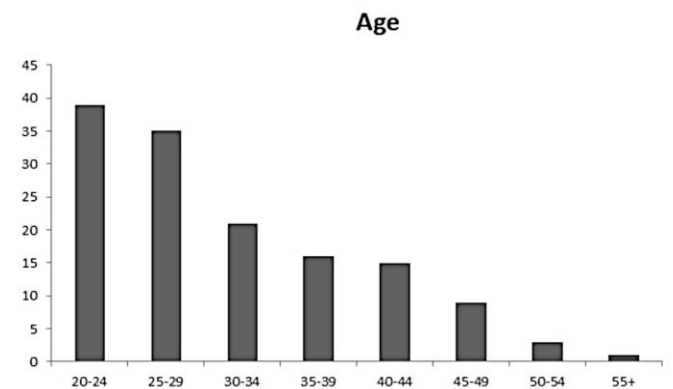


Figure 3. This figure illustrates the preservice teachers' age.

Our convenience sample was purposeful, as we were able to conduct the study with the preservice teachers enrolled in the targeted course.

Procedure

Throughout the semester, undergraduate preservice

teachers were required to complete 10 hours of experiential learning with two students in the community-based tutoring program. The requirement constituted 10 % of their course grade. Prior to being placed in either of the participating two school districts, the community-based tutoring program provided two hours of training to the preservice teachers. The training, provided by the community-based tutoring program, familiarized the students with what the weekly 30-minute sessions with each student should entail. The preservice teachers were shown the curriculum, which consisted of scientifically based research activities on literacy skill development and leveled, authentic literature. The training took place at the university in each preservice teacher's course. Through the training, the preservice teachers learned that they would be working with a site ambassador, a teacher or reading specialist designated by the school to assist in implementing the community-based tutoring program into the school. Finally, in order for the preservice teachers to tutor the students, they had to complete a background check and be fingerprinted. Both are necessary to ensure the safety of the school-age children. Once preservice teachers passed their background checks, they were matched to second graders in a school within two of the participating school districts, to begin tutoring during the semester.

Data Collection

At the end of the participating semester, the preservice teachers completed a survey regarding their experience with the community-based tutoring program. Using skip logic in the survey program, the preservice teachers selected whether they consented to or chose not to participate in the study. Skip logic provides for this opportunity to opt in or exit the study on the first page of the consent form. There was no penalty for the preservice students choosing not to participate in the survey. Demographic data were collected. The survey consisted of 10 Likert Scale statements, in which students rated as: *strongly disagree*, *disagree*, *not applicable*, *agree*, and *strongly agree*. Questions 1-3 were defined as statements about the preservice teachers' perceptions of the community-based tutoring program curriculum and experience, and whether the curriculum and

experience aligned with the course content, to ensure they are prepared for the teaching profession. Questions 4-8 were defined as statements about the preservice teachers' perceptions of the impact of the community-based tutoring program on the student. The final two questions (9 and 10) were defined as statements about the preservice teachers' perceptions of themselves as a tutor for a struggling reader. Students rated the following statements regarding SA Reads, the community-based tutoring program:

1. The experience with the community-based tutoring program reinforced the content covered in my course.
2. The experience with the community-based tutoring program (training and tutoring) has/will help me to understand how to help a struggling reader in the teaching profession.
3. The community-based tutoring program's curriculum matched what was covered in my courses.
4. I feel that my tutoring the community-based tutoring program's students will make an overall impact on the students' overall reading ability.
5. I feel that my tutoring the community-based tutoring program's students has helped the student in the affective domain (motivation, etc.).
6. The community-based tutoring program's students were confident readers prior to my tutoring of the student.
7. I feel that my tutoring the community-based tutoring program's students has helped the student gain confidence in reading.
8. My experience with the community-based tutoring program has had a positive impact on the student.
9. The community-based tutoring program experience has had a positive impact on me.
10. I am glad to have gained the knowledge and experience in working with a student in the community-based tutoring program.

In addition to 10 Likert Scale statements, the students completed four open-ended questions about their experience. The first open-ended question pertained to "Impact on Learning." The preservice teachers were asked, "What thoughts would you like to share regarding the impact of the experiential component to concepts learned in your

course?" The second open-ended question pertained to "Tutoring Experience." The preservice teachers were asked, "What thoughts would you like to share regarding the overall tutoring experience and how it has influenced your decision to be a professional educator?" In addition, the preservice teachers answered a third open-ended question about "Campus Climate." The preservice teachers were asked, "What thoughts would you like to share regarding the impact of the campus climate and support of your community-based tutoring program tutoring experience?"

Results

The researchers used descriptive statistics to determine the percentages of the statement responses from the preservice teachers. Each preservice teacher rated 10 Likert Scale statements based upon her perceptions of the experiential learning experience. Some participants chose not to answer some questions. Therefore, the responses included are only those of the preservice teachers who responded, which means the sample size fluctuates for each statement. For each statement, the mean and standard deviation is reported in Figure 4. For a complete list of each Likert Scale statement's result, see Table 1.

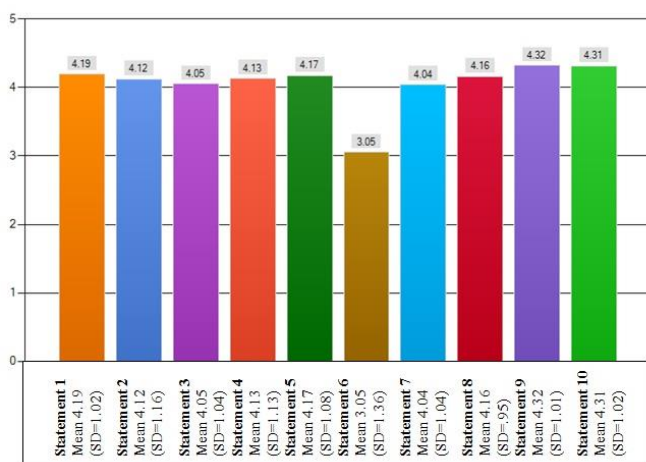


Figure 4. This figure illustrates means and standard deviations of the preservice teachers' perception statements.

Statement Analysis

Regarding Statement 1, 91.6% of the preservice

teachers *agreed* or *strongly agreed* that the community-based tutoring program experience reinforced the content covered in their course. The percentage is high because the community-based tutoring program offers preservice teachers the opportunity to receive full-hands on training by assisting a struggling reader. The course content alone cannot fulfill this obligation. Other courses, such as special education and child development, in which the preservice teachers were enrolled may also have been a contributing factor to the high percentage for Statement 1. More importantly, the preservice teachers were able to trust that the content covered in class was necessary to learn, so they may fully understand struggling readers and provide needed interventions to their tutees.

Next, on Statement 2, 86.8% of the preservice teachers *agreed* or *strongly agreed* that the community-based tutoring program experience would help them in the future to assist a struggling reader in the field. This percentage *may* be high because this was the preservice teachers' first literacy course, and some may have not built the total confidence in being able to assist a student who is severely struggling in the learning to read stage. During their class time in the foundations of literacy course, some preservice teachers expressed their astonishment at the low skill levels of either one or two of their tutees. The researchers believe that this opportunity allowed the preservice teachers to develop a frame of reference for future education courses and in their future classrooms because of the variety of reading levels observed in the students tutored.

On Statement 3, 85.7% of the preservice teachers *agreed* or *strongly agreed* that the curriculum used during tutoring was aligned with what was covered in class. The percentage is high because the community-based tutoring program used scientifically-based, reading research activities from The Florida Center for Reading Research (FCRR) (2014) at Florida State University. The FCRR activities gave the preservice teachers the opportunity to apply their knowledge of the aforementioned concepts through experiential learning. Throughout the semester, some preservice teachers, however, may have had the opportunity to

Table 1
Percentages from the Preservice Teachers' Perception Statements

Statements	<i>n</i>	Strongly disagree	Disagree	Not applicable	Strongly agree	Agree
1. The experience with the community-based tutoring program reinforced the content covered in my courses.	83	7.2% (6)	0.0% (0)	1.2% (1)	49.4% (41)	42.2% (35)
2. The experience with the community-based tutoring program (training and tutoring) has/will help me to understand how to help a struggling reader in the teaching profession.	83	7.2% (6)	6.0% (5)	0.0% (0)	41.0% (34)	45.8% (38)
3. The community-based tutoring program's curriculum matches what was/is covered in my course.	84	6.0% (5)	3.6% (3)	4.8% (4)	51.2% (43)	34.5% (29)
4. I feel that my tutoring the students will make an impact on the students' overall reading abilities.	84	4.8% (4)	8.3% (7)	3.6% (3)	35.7% (30)	47.6% (40)
5. I feel that my tutoring the community-based tutoring program's students has helped the student in the affective domain (motivation, etc.).	83	6.0% (5)	3.6% (3)	3.6% (3)	41.0% (34)	45.8% (38)
6. The community-based tutoring program's students were confident readers prior to my tutoring the students.	84	14.3% (12)	27.4% (23)	16.7% (14)	22.6% (19)	19.0% (16)
7. I feel that my tutoring the community-based tutoring program's students have helped the students gain confidence in reading.	82	4.9% (4)	4.9% (4)	7.3% (6)	47.6% (39)	35.4% (29)
8. My experience with the community-based tutoring program has had a positive impact on the student.	82	4.9% (4)	1.2% (1)	4.9% (4)	51.2% (42)	37.8% (31)
9. The community-based tutoring program experience has had a positive impact on me.	84	6.0% (5)	0.0% (0)	3.6% (3)	36.9% (31)	53.6% (45)
10. I am glad to have gained the knowledge and experience in working with a student in the community based tutoring program.	84	6.0% (5)	0.0% (0)	4.8% (4)	35.7% (30)	53.6% (45)

develop only one skill, such as alphabetic principle, to assist a student who had not mastered grapheme-phoneme correspondence, even though the course taught a plethora of literacy concepts. The preservice teachers, however, did provide the community-based tutoring program tutees with ample opportunities to orally read an authentic literature book on their level, with or without assistance.

In the next cluster of questions, the emphasis was on the community-based tutoring program students. On Statement 4, 83.3% of the preservice teachers *agreed* or *strongly agreed* that tutoring the community-based tutoring program students made an impact on the students' overall reading ability. Again, the preservice teachers rated this statement as high. Some preservice teachers believed that due to the severity of some of the students' reading abilities, coupled with the preservice teachers' newness to teaching, students may have needed more than five total hours.

On Statement 6, only 41.6% of the preservice teachers *agreed* or *strongly agreed* that their community-based tutoring program students were confident readers prior to the preservice teachers tutoring the students. On Statement 5, however, 86.8% of the preservice teachers *agreed* or *strongly agreed* that the community-based tutoring program has helped the students in the affective domain, and on Statement 7, 83% of the preservice teachers *agreed* or *strongly agreed* with the statement pertaining to the community-based tutoring program helping the students gain confidence in reading. These percentages may be high due to the fact that students were engaged in creative lessons through the use of games and center activities, whose purposes were to strengthen students' skill development. Students were also able to read books of their choice. Book choice is a motivating factor in reading (Marinak & Gambrell, 2008). Students, therefore, were able to reinforce skills that

needed to be strengthened and select books to read for enjoyment. On Statement 8, 89% of the preservice teachers *agreed* or *strongly agreed* that the community-based tutoring program experience had a positive impact on the student. Some preservice teachers even asked their site ambassadors if they could continue tutoring the following semester, although the course in which the experiential learning was embedded was over.

If the United States wants to improve the reading proficiency levels of fourth grade students, teachers must be provided with many opportunities to understand how and why a reader struggles.

The last two questions pertained to the impact that the experiential learning had on the preservice teachers. On Statement 9, 90.5% of the preservice teachers *agreed* or *strongly agreed* with the statement that the community-based tutoring program had a positive impact on them.

On Statement 10, 89.3% of the preservice teachers were glad to have gained the knowledge and experience in working with students in the community-based tutoring program. The high percentages indicate that the preservice teachers felt that the experiential learning experience was valuable to them. Based on the data the preservice teachers indicated that they were properly equipped with the applicable knowledge and the experience to assist a student who struggles to read.

Text Analyses

Text analysis was used to analyze the preservice teachers' open-ended responses. The researchers felt that the preservice teachers should have the opportunity to express their thoughts openly. The researchers structured questions that they thought would aid the preservice teachers to reflect upon their tutoring experience. The major themes were: Impact on Learning, Tutoring Experience, and Campus Climate. Through data analyses features in SurveyMonkey, an online survey clearinghouse, the researchers were able to run analyses to determine the major themes of the preservice teachers' open-ended statements. The themes are the key words

and/or phrases that preservice teachers used the most. The larger the printed word in the analyses, the most often it was cited by multiple students. The text analyses are reported in Figures 5, 6, and 7.

Activities Believe Concepts Enjoyed Experience Kids
Learned Matched Reading Students Taught

Figure 5. Impact on learning: What thoughts would you like to share regarding the impact of the experiential component to concepts learned in your assigned class?

Decision Degree Fun Grade Great Experience Impact
Learned Loved Needs Overall Reading Realize
Struggling Teaching Tutoring

Figure 6. Tutoring experience: What thoughts would you like to share regarding the overall tutoring experience and how it has influenced your decision to be a professional educator?

Campus Enjoyed Excellent Friendly Great Place Learning
Environment Organized Program Reads SAREads School
Students Support Teachers Tutoring

Figure 7. Campus climate: What thoughts would you like to share regarding the impact of the campus climate and support of your community-based tutoring experience?

Question 1 asked the preservice teachers to share their thoughts regarding the impact of the experiential component to concepts learned in class. In their responses, the preservice teachers used words such as *Experience*, *Reading*, *Learned*, *Concepts*, and *Students* as a recurring theme (see Figure 2). One preservice teacher stated, "I like that the activities matched up with what was being taught in class," while another stated, "The experiential component helped me within the class by using what I learned in my course to help the students, such as sight words, concepts about print, et cetera."

Question 2 asked the preservice teachers to share

any thoughts that they had regarding the overall tutoring experience, and how it had influenced their decision to be a professional educator. In their responses, the preservice teachers responded with statements that included words such as *Great Experience*, *Teaching*, *Tutoring*, *Realized*, and *Decision* (see Figure 3). One preservice teacher stated, "It was good practice learning how to effectively communicate with struggling readers," while another stated, "I still want to become a teacher. This experience only solidifies my decision."

The final question asked the preservice teachers to share their thoughts regarding the impact of the campus climate and the campus willingness to support the community-based tutoring program. The preservice teachers used words such as *Organized*, *Campus*, *Friendly*, *Environment*, and *Great Place* to describe the campus climate. One preservice teacher stated, "The community-based tutoring program together with the reading specialist, on campus at the school, were both very involved in the experience," while another wrote, "The support was really good. The site ambassador was always there to help make sure I was doing everything correctly."

On all three open-ended responses, the preservice teachers made positive statements about their experience with the community-based tutoring program and the knowledge they gained. The preservice teachers also believed that the experience had made a positive impact on the students and a positive impact on their understanding and application of literacy skills.

Discussion

The goal of this study was to determine the preservice teachers' perceptions about the practical application of foundational literacy skills in an experiential learning environment. The results show that the preservice teachers perceived the community-based tutoring program as an overall positive tutoring experience. The results suggest that preservice teachers were able to use the alignment of the course concepts, in conjunction with the community-based tutoring program curriculum, to better assist struggling readers. Preservice teachers also felt that the community-based tutoring program

experience had a positive impact on the students, and the community-based tutoring program experience had a positive impact on them.

Limitations

The present study served as a pilot and has several limitations. First, the preservice teachers were administered the survey after their experiential learning experience. A presurvey was not administered due to time constraints. Using the data from this pilot study, the researchers will design a more rigorous methodology using pretest and pre-survey data from the preservice teachers. Second, we do not truly know how each tutee felt about the tutoring experience, as no survey data were collected from the students. Last, the researchers did not have access to the students' testing data. The site ambassadors determined which students needed tutoring in reading, although many of the students did not fare well on their state assessment test in literacy. The site ambassador determined the literacy level, which served as a starting point for the preservice teachers to tutor the students. Despite the limitations of this study, the data show that students enrolled in a foundational literacy course perceived an experiential learning component as a benefit to their literacy knowledge.

Implications

This study has great implications for teacher preparation programs. First, in foundational literacy courses, terms such as phonological awareness and phonemic awareness can be difficult for some preservice teachers to grasp. When these skills are taught, preservice teachers are exposed to the textbook, lectures, in-class activities, and projects. However, through an experiential learning component, such as the community-based tutoring program, the preservice teachers were able to assist

students with these skills. This unique experience added to their knowledge base of how best to assist a student who is struggling to read.

Secondly, the preservice teachers were able to build confidence in their students. The preservice teachers were able to build rapport with the students by being friendly and nonjudgmental of the students' reading abilities. The preservice teachers, also, attended the session each week, which built a trust for the student, in which the student knew his tutor would be present to help him with reading. This trust allowed students to read with the preservice teachers without possibly the need of feeling embarrassed. Each of the aforementioned implications may have allowed the students to build confidence in their reading. In conclusion, this study has real implications that can be implemented into any literacy teacher preparation course. Preservice teachers can practically apply the sometimes difficult concepts in literacy with a struggling reader. This connection between the preservice teacher and the student will allow the preservice teacher to develop her literacy skills and will allow the student to receive instruction as he is trying to move from the learning to read stage to the reading to learn stage.

We hope this study will spur other studies on preservice teachers and literacy learning through experiential learning. We believe that preservice teachers need many experiences assisting struggling readers in order to be effective teachers. If the United States wants to improve the reading proficiency levels of fourth grade students, teachers must be provided with many opportunities to understand how and why a reader struggles. Experiential learning provides preservice teachers with experiences that will enable them to better assist struggling readers, thus improving the reading proficiency of elementary students.

References

- Bos, C., Mather, N., Dickson, S., Podhajski, B., & Chard, D. (2001). Perceptions and knowledge of preservice and inservice educators about early reading instruction. *Annals of Dyslexia*, 51(1), 97-120.
- Chall, J. S. (2003). Poor children's fourth-grade slump. *American Educator*, 14-15.
- Kolb, D. (1984). *Experiential Learning: Experience as the source of learning and development*. Englewood Cliffs, N.J.: Prentice Hall.
- Chall, J. S. (1983). *Stages of reading development*. New York, NY: McGraw-Hill.
- Gough, P. B. (1972). One second of reading. In J. F. Kavanagh & I. G. Mattingly (Eds.), *Language by ear and by eye* (pp. 331-358). Cambridge, MA: MIT Press.
- Florida Center for Reading Research. (2014). *Student Center Activities (2005-2008)*. Tallahassee, FL: Florida State University. Retrieved from <http://www.fcrr.org/for-educators/sca.asp>
- Joshi, R. M., Binks, E., Hougen, M., Dahlgren, M. E., Ocker-Dean, E., & Smith, D. L. (2009). Why elementary teachers might be inadequately prepared to teach reading. *Journal of Learning Disabilities*, 42(5), 392-402.
- LaBerge, D., & Samuels, J. (1974). Towards a theory of automatic information processing in reading. *Cognitive Psychology*, 6, 293-323.
- Marinak, B. A., & Gambrell, L. B. (2008). Intrinsic motivation and rewards: What sustains young children's engagement with text? *Literacy Research and Instruction*, 47(1), 9-26.
- McCutchen, D., & Berninger, V. (1999). Those who know, teach well: Helping teachers master literacy-related subject-matter knowledge. *Learning Disabilities Research & Practice*, 14(4), 215-226.
- Moats, L.C. (1999). *Teaching reading IS rocket science: What expert teachers of reading should know and be able to do*. Washington, DC: American Federation of Teachers.
- Moats, L.C., & Lyon, G.R. (1996). Wanted: Teachers with knowledge of language. *Topics in Language Disorders*, 16(2), 73-86.
- National Center for Education Statistics (2011). *Reading 2011: National assessment of educational progress at grades 4 and 8*. (The Nation's Report Card, NCES 2012-457). Washington, D.C.: National Center for Education Statistics, Institute of Education Sciences. Retrieved from <http://nces.ed.gov/nationsreportcard/pdf/main2011/2012457.pdf>
- Nagy, W., & Herman, P. (1987). Breadth and depth of vocabulary knowledge: Implications for acquisition and instruction. In M. McKeown & M. Curtiss (Eds.), *The nature of vocabulary acquisition* (pp. 19-35). Hillsdale, NJ: Erlbaum.
- Smeaton, P.S., & Waters, F. H. (2013). What happens when first year teachers close their classroom doors? An investigation into the instructional practices of beginning teachers. *American Secondary Education*, 41(2), 71-93.

Spear-Swerling, L., & Brucker, P. O. (2003). Teachers' acquisition of knowledge about English word structure. *Annals of Dyslexia*, 53, 72-103.