The Field Experience Journal

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From the Editor

Dear Readers of *The Field Experience Journal:*

This edition of *The Field Experience Journal* opens with a submission from Sherie Williams of Grand Valley State University titled Teaching Abroad: Effects on the Cultural Competence of Pre-Service Teachers. Dr. Williams shares a qualitative study with pre-service teachers who participated in the Consortium of Overseas Student Teaching to investigate the effect of a diverse teaching experience on teacher candidates.

Drs. Joshua DeSantis and Nicole Hesson of York University examine the concept of self-efficacy development during pre-service teachers' field experiences in Teacher Sense of Efficacy.

The University of Northern Colorado's Corey Pierce and Valerie Sherman in their submission of Exploring the Efficacy of an CBM-Focused Field Experience through a District and University Partnership focuses on the need for assessment data to be used in identifying students who need support and for the purpose of evaluating the effectiveness of educational programs.

Beginning with Co-Teaching to Improve K–5 Student Achievement provided by Douglas Busman, Linda McCrea, Sheryl Vlietstra and Mario Adkins addresses the reluctance of classroom teachers to accept teacher candidates into their classrooms. This team shares how demonstrating improved student achievement can alter this reluctance.

West Chester University's Karen Johnson discusses in her article, Extending Student Teaching beyond the Fifteen Weeks: Benefits and Drawbacks for K-4 Teacher Candidates, Mentor Teachers, and Elementary Students, the results of a survey of the benefits of an extended student teaching year-long experience.

Watch and Wonder: Field Notes that Reveal Teacher Candidate Curiosities is written by Kathleen Wagner, Beth Birky, and Mary Kallus from Eastern New Mexico University. The purpose of their study was to discover what questions teacher candidates ponder as they observe in public schools during their initial field experience.

Finally, my thanks to those who have contributed their manuscripts for our consideration and to our reviewers for their time and expertise.

Kim L. Creasy

Teaching Abroad:

Effects on the Cultural Competence of Pre-Service Teachers

Sherie Williams

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Abstract

The need for more culturally competent teachers is rising in today's world. To discover the effect a culturally diverse teaching experience has on student teachers, a qualitative study was completed with former pre-service teachers from a Midwestern university who participated in the Consortium of Overseas Student Teaching (COST) program. During this program, they had the opportunity to actually teach rather than simply studying abroad. This study showed that placing students in diverse teaching experiences during their pre-service period enhanced their cultural competency and employability. Also, this type of training influenced these teachers in their future classrooms by enhancing their cultural competency and teaching practices.

Keywords: cultural awareness, cultural competence, employability, pre-service teachers, teaching practices

Today, schools and colleges of education are preparing professionals to teach in a world that is much more connected regarding international perspectives than in the past. The teachers prepared for tomorrow's classrooms will need the knowledge and skills to serve a more diverse population of students. "In the past 30 years the foreign-born population of the U.S. has tripled…" (National Council of Teachers of English, 2008, p. 1). In addition, English Language Learners (ELLs) are the "... fastest growing segment of the student population" (p. 2). Researchers have found that students who are culturally diverse respond more positively to teachers who are able to connect to their background and prior experiences (Darling-Hammond, 2006; MacPherson, 2010). Culturally diverse students and parents also have been found to have more trust in teachers who are culturally sensitive and competent (Irizarry & Williams, 2013). Thus, with the rise of culturally diverse student populations, universities responsible for the training of teachers must respond to new needs when preparing those teachers for success.

Background

Recognizing that the world is becoming a much smaller community of learners, numerous experts in the area of teacher preparation have identified the influence a multicultural teaching experience can have on a teacher's development. An increasing number of teachers are crossing international borders to teach abroad while, at the same time, more and more students of various cultures are seeking education in the United States. These trends make it all the more important for teachers to have the skills needed to teach learners of all cultures. Teaching abroad during a pre-service experience allows candidates to expand their skill base and learn new ideas and skills in the area of cultural competence.

Importance of Teaching Abroad

According to Blair (2002), it is essential for future teachers to teach abroad during their teacher preparation program to ensure that a culturally sensitive teacher emerges to serve the classroom. This is especially important in the classrooms of today where more and more children will be from a variety of cultures. Quezada (2005) agrees that student teaching abroad helps future teachers become more culturally sensitive and able to relate to students of different cultures within their own future classrooms. Malewski, Sharma & Philion (2012) concluded, "… experiential learning in an international setting is key to developing pre-service teachers' cross-cultural awareness" (p. 2).

According to Cushner and Brennan (2007):

There are several compelling reasons for teacher-education programs to include field experiences in intercultural or international settings in the pre-service curriculum. Schools of education today are preparing professionals to teach in a world that is much flatter, interconnected and more complex than in the past — and these professionals will serve an increasingly diverse population of learners. Therefore, graduates of education schools must be equipped to address a range of needs in their classrooms, and they must have the necessary disposition, knowledge and skill to prepare their pupils to function in a global society. In other words, they must be culturally competent. (p. 4)

One way to facilitate this need is by offering targeted programs. Many educational researchers have addressed the importance of international student teaching and the need to encourage pre-service teachers to experience such opportunities in their preparation as global citizens (Blair & Jones, 1998; Cushner & Brislin 1996; Doppen, Jing, & Diki, 2016; Malewski, Sharma, & Phillion, 2012; Merryfield, 2000; Stachowski, Richardson, & Henderson, 2003). Others, such as

Mahon and Stachowski (1990), have statistically proven the advantage of student teaching abroad: "Overall, the overseas participants acquired a larger number of learnings (as measured by their state competency exams) than their conventional counterparts" (p. 21).

Study abroad and international student teaching experiences have been shown to have a positive effect on university students' cultural understanding of the host country (Bryan & Sprague, 1997; Clement & Outlaw, 2002; Mahon & Cushner, 2002; Stachowski et al., 2003; Stachowski & Visconti, 1998). Quinn, Barr, Jarchow, Powell, and McKay (1995) reported that such experiences result in an expanded view and increased professional competence. This claim was echoed by Malewski et al., (2012), with the addition by pre-service teachers that their experiences included self-discovery as well as cultural discovery. Among the plethora of research supporting the benefits of teaching abroad, authors such as Alfaro and Quezada (2010) and Dantas (2007) have noted pre-service teachers' desire to improve self-confidence, acquire language skills, and develop global perspectives. These are all qualities that universities preparing teachers for the future find desirable.

The importance of pre-service teachers experiencing teaching abroad can also be found in the area of employment. Gibson and Martin (2010) found principals considered applicants with international experience to be more qualified. Fifty-eight percent of administrators noted that applicants would be, or probably would be, more qualified as new hires. Shiveley and Misco (2012) noted that candidates are generally more qualified for hire, with some areas of focus being more valuable. In a study conducted by Doppen and Jing (2014), 31 of 40 former pre-service teaching abroad candidates self-reported that their teaching abroad experience "helped them to obtain their first teaching position" (p. 67). Finally, Shiveley and Misco (2015) found

students self-reported greater confidence when interviewing for jobs based on their experience teaching abroad.

Models for Teaching Abroad

In a review of the literature, Quezada (2005) identified two program models for student teaching abroad. The first model may be defined as "faculty-initiated, university sponsored," in which school of education faculty create or develop their bilingual student teaching programs by themselves and then partner with international education opportunities or programs that already exist. The second model is an "affiliated program," in which schools of education are part of a consortium made up of various universities in the United States that partner with host-country universities. In the latter type of program, students complete their student teaching in four possible types of school settings: (a) Department of Defense K-12 Schools, (b) U.S. Department of State American-Sponsored Overseas Schools, (c) Independent International/American Schools, and (d) host-country public schools.

The Consortium for Overseas Student Teachers (COST) is an example of the second model identified by Quezada (2005). COST is a closed consortium with 15 participating U.S. universities. Known as sending sites, these universities dispatch students to more than 30 receiving sites in 16 different countries (Appendix A). COST is credited with being one of the oldest organizations facilitating international student teaching placements. Since its inception in 1973, COST has become a sought-after program by many major universities. Currently, there are universities that have been placed on a waiting list, hoping to join this consortium.

<div align="center">Theoretical Framework and Purpose of Study</div>

As an increasing number of universities in the United States are recognizing the importance of providing teacher candidates with greater cultural competence, more research is

needed to answer a fundamental question: what do experiences with teaching abroad ultimately mean for teacher candidates? To contribute to this research, this study examined the effect pre-service teaching abroad had on the future cultural competence and classroom practices of teachers who experienced an intense multicultural teaching experience during their teacher preparation program.

Framework

This study was viewed through the lens provided by the work of James Banks (2001, 2005, 2007, 2013) and his beliefs concerning multicultural education and teacher preparation. According to Banks (2013), "Multicultural education has evolved from ethnic studies, to multiethnic education, to multicultural education, to multicultural education in a global context" (p. 79). No matter the terminology used, the point remains; pre-service teachers need to be taught how to be culturally aware to enable future generations of students to also become culturally aware.

Banks (2001) noted what numerous others have discovered. "… of the nation's teacher education students most are middle class White females who have little experience with other racial, ethnic or social class groups" (p. 10). In many of his writings, Banks has continued to advocate for the need to educate educators on the importance of teaching global citizenship. He has explored the challenges involved with changing the preconceived, privileged notions of the average pre-service teacher candidate—preconceived notions that make it difficult for these teachers to effectively teach culturally diverse students. Banks (2007) has asserted that pre-service teachers must obtain needed cross-cultural knowledge through coursework and the inclusion of diverse field experiences, preferably experiences that submerge teacher candidates in a culture outside their own comfort zone.

COST program students have this type of field experience. By definition, they are placed in areas outside their comfort zone, and by functioning in an individually placed program, their comfort levels are further stretched. These students must learn to assimilate into the culture in which they have been placed without the assistance of familiar faculty. This type of experience offers participants a true immersion, leading to cultural knowledge that they take into their future classrooms.

Purpose

The purpose of this study was to answer two questions:

1. Does teaching abroad during a pre-service experience enhance participants' cultural competence and employability?

2. Does teaching abroad during a pre-service experience change participants' classroom teaching practices to be more culturally sensitive?

The overall hypothesis was that teaching abroad during a pre-service experience would influence not only the cultural competence and sensitivity of teachers-to-be, but also affect their classroom practices. In turn, this would influence future generations of students. By becoming more culturally aware, the student teachers who taught in foreign sites would change the way they structure their classrooms, thus changing the cultural awareness of the students they ultimately serve.

Methods

This study collected qualitative data from former pre-service teachers via interviews and surveys. These teachers all had participated in an overseas pre-service teaching experience prior to receiving their certification as classroom teachers. The data collected were organized by recurring themes and analyzed using open coding.

Research Design

A qualitative design was chosen for data collection, utilizing a multiple case comparative study design, as described by Yin (2003). Yin further described this type of study as investigating an issue in a real-life context. In this case, by seeking information from participants after they had entered the professional world of teaching, the information gathered would be related to their real-life experiences. The study and data collection tool was approved by the Human Subjects in Review Board from the author's university. Approval also was secured for the informed consent form.

Participants

Subjects chosen were former participants of the COST program who had attended a Midwestern university of approximately 25,000 students. Using information obtained from university records and personal contacts, each individual who participated in the COST program between 2004 and 2011 was included in the initial contact list (Appendix B). Fifty-six requests for participation were sent by the researcher via email using the last known email contact from university records. If the email was returned as no longer valid, attempts were made using the last reported telephone number. If this attempt was not successful, letters were sent to last known address. Ultimately, 52 successful contacts were made via email, phone, or mail. Four potential participants were unable to be contacted. Of the 52 contacts made, 24 individuals (46%) agreed to participate and submitted the required consent form (Appendix C). Participants had studied in a variety of countries: five in Mexico, two in the Commonwealth of the Bahamas, one in Costa Rica, three in New Zealand, four in Australia, seven in South Africa, and two in Ecuador.

Data Collection and Analysis

The data collected were generated from a 10-question survey (Appendix D). The 10 questions were developed by using a Delphi process with a panel of three teachers, one study abroad administrator, and one graduate student studying international education. These participants were asked to submit a list of questions they felt would generate answers relevant to the two overall research questions being studied. These responses were shared with all five Delphi participants, with the request that they rank the questions in order of importance. The final list of questions was then created from this process.

Fifteen of the survey participants responded to the questions in writing, and nine agreed to a personal or telephone interview using the 10-question survey as the basis for the conversation. Participants were encouraged to elaborate and provide additional information when answering each question. The answers to all questions were recorded, and additional comments and information also were noted.

An open coding method of data analysis was used in this study. The answers to all questions were studied with a focus on finding repeated phrases or concepts. As identified by Yin (2003), the first step in analyzing qualitative data is to search for themes and patterns. As similar, recurring themes and patterns emerged, they were grouped into larger silos of similar data.

Findings

Three prominent themes emerged when data analysis was complete: employment, cultural awareness, and teaching impact. Participants spoke about each of these topics with similar awareness and discovery, describing how their pre-service teaching experience had

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affected them professionally and, in some cases, personally. The findings from these three themes are explored in more detail below.

Employment

The participants represented a variety of employment options. Twenty-three (96%) of the participants were currently employed in education, and one was enrolled in graduate school. This percentage is quite impressive given the fact that more than 8,000 new teachers were certified the year this study began, and only 1,227 elementary jobs were reported available in the state involved in this study. Ten participants (42% of survey respondents) were teaching out of state or in another country, and five (21%) were teaching language or language immersion courses.

Twenty-three participants (96%) noted that the experience was helpful in finding employment. One participant responded, "COST gave me the confidence to go teach in remote Alaska. Without having had this experience, I'm sure I would have been too afraid to try." Another participant shared, "It (COST) was a great interview topic. It helped me explain how I can overcome challenges and how I learned to bond with all students. Being outside my comfort zone made me challenge myself."

Numerous participants shared that their teaching abroad experience was a major component in their employment interviews. Everyone viewed this opportunity as a factor that gave them a competitive edge over other candidates who did not have this teaching abroad experience. One interviewee noted, "I think this helped when I was looking for a job. It was such a great experience that not many other applicants had, so it makes you stand out from the others." Another comment was added to this, "My experience set me apart from the other candidates. My principal said he hired me because of my diverse experiences abroad."

Other employment-related opportunities were noted by some of the participants. For example, one responded, "The skills I have acquired in New Zealand made me a recognized and respected teacher in my district." It was noted by another participant that she was actively pursued by her current district because of her experience abroad. She had not applied before being contacted, but her resume had been passed on to her current district by another district to which she had applied. She also shared that she had two offers from her placement school abroad to stay in that country and teach.

Cultural Awareness

All participants (100%) gave affirmative statements about the influence the COST program made in their cultural awareness and competency. Fifteen participants (62%) emphasized this with responses such as "absolutely" or definitely."

Numerous respondents noted the effect the experience had on their understanding of family and cultural expectations when dealing with students of diverse backgrounds. One participant stated, "My current district is a transient area because of the job market. We have lots of immigrants and it (COST) helped me understand how they learn and family dynamics, home life, and parent expectations. I am now a better teacher." Another student told the story of visiting a Xhosa village and how her shock turned to joy when she realized people could be happy living a life as their ancestors had, with no modern conveniences. She found the ties they had with their family and community fascinating.

Numerous participants recounted personal experiences of how this experience enhanced their sensitivity toward other cultures and the world in general. As stated by one student, "I was the only white person in my school. It was great to be a minority for a while to truly understand how that feels. Now I 'get it.'" One participant stated that he had never watched the world news

before, but now he "… saw the world as a smaller place and what happens abroad affects us all." Several participants expressed shock that the students they worked with knew two or three languages in addition to their native tongue, as opposed to the U.S. standards of monolingual teaching. The experience may be best summarized by a quote from one of the participants: "I have traveled around the world for a week or two here and there, but having a chance to stay in one place for an extended amount of time allowed me to learn more deeply about that culture. I could experience the local traditions instead of just the 'tourist' things."

All 24 (100%) of the participants surveyed also reported that they would recommend teaching abroad to others. Fourteen (58%) of them further emphasized their response with "absolutely" or other forms of emphasis. One student stated that she would like to see a teaching abroad requirement for all teachers who serve students in a multicultural setting. Another participant echoed this sentiment by adding, "All teachers should have to teach abroad before being allowed to teach others." Overall, the participants felt the knowledge they gained by participating in COST and teaching (i.e., not studying or visiting) was well worth the investment of time and money.

Teaching Impact

Twenty participants (83%) reported that their COST experience had a direct impact on their classroom practices. Numerous examples were given, such as participants being aware and more sensitive to students and parents whose first language is not English. Others reported using their individual experiences to teach their students about different cultures and regions of the world. "I have a new awareness of what is going on in the world," one stated. "I begin each day of my class with a briefing of something taking place abroad." One participant reported that her experience with COST became the focus of her classroom theme. She used her experiences to

not only teach students about another cultures, but to lend identity to her classroom. As stated by one participant, "I feel I have a much bigger, better world perspective and that helps me bring my students into some of the 21st century thinking."

Many of the participants spoke about the benefits teaching abroad afforded them in relationship to English Language Learners (ELL). One said, "Teaching overseas gave me a better look at English Language Learners I have in my classroom." Another participant related that her experience abroad helped her understand how her students with special needs must feel. She explained how the language barrier in her experience abroad must be what her students feel when trying to learn new concepts. Working with migrant populations can be very challenging; one student spoke of her ability to understand the needs of this population after her teaching experience in Mexico.

One concept shared by a participant was her experience abroad with the use of teacher-created curricula versus textbooks. She shared, "The school I taught at did not have a lot of textbooks or consumables so the majority of the classwork and assessments were teacher created based on curricular standards." She went on to explain how this has changed her way of preparing lessons. "To this day, I often find myself leaving the textbook behind and creating more authentic activities and assessments for my students." To add to this concept, another participant spoke about her ability to work with fewer books and materials. She added that it made her become a better teacher, with the ability to be flexible with teaching materials. Still another participant spoke about her use of "project-based learning opportunities" and how before teaching abroad this was just a concept learned from a textbook. Now she is aware of how other countries can use great ideas.

Study Limitations

One of main limitations to this study is the fact that all participants hailed from the same midwestern university. Since the COST program is represented by 15 universities across the United States, this study served as a narrow sampling of the entire program population. The university represented falls within the mid-range of university size for the COST program, with the student population of COST members ranging from approximately 800 to 42,000 students per university.

In addition, a sample of 24 participants (46% of those successfully contacted) is a small representation of possible students participating in this program. An estimated 600 or more students participated in COST during the time period represented in this study. By expanding data collection to other universities, the results could have offered richer data.

Finally, by collecting data by phone, email, and in person there was some discrepancy in the amount of interaction by the researcher. It was evident that the face-to-face interviews resulted in more data being collected from participants, as they appeared more engaged and wanted to expand their comments. Phone interviews resulted in some additional dialogue in answering the questions, with the emailed responses appearing to give shorter, more precise answers with little expansion on each question.

Conclusions

Based on the responses of this group of participants, several conclusions can be considered. First, participating in a program such as COST that provides teaching abroad experiences appears to enhance employment opportunities. It is seen to give candidates an advantage over others who do not have this experience. Second, teaching abroad is perceived as a valuable experience worth the resources necessary to facilitate the experience. All participants

would recommend teaching abroad to any future pre-service teachers as a way to enhance their teaching skills. Finally, teaching abroad does appear to affect a teacher's personal and professional cultural awareness and competency. This became evident in the personal experiences shared by the study participants as they described their participation in the COST program. It is further evident in how these teachers use the knowledge and experiences they received in their pre-service experience to enhance their current classrooms.

Ultimately, enhancing and influencing the cultural awareness and competency of pre-service teachers will, in turn, impact the lives of their students. This equates to a ripple effect influencing generations to come.

Acknowledgments

References

Alfaro, C., & Quezada, R. L. (2010). International teacher professional development: Teacher reflections of authentic teaching and learning experiences. *Teaching Education, 21*, 47-59.

Banks, J. (2001). Citizenship education and diversity: Implications for teacher education. *Journal of Teacher Education*, *52*(1), 15-16.

Banks, J. (2005). *Cultural diversity and education: Foundations, curriculum, and teaching*. Needham Heights, MA: Ally & Bacon.

Banks, J. (2007). *Educating Citizens in a Multicultural Society* (2nd ed). New York, NY: Teachers College Press.

Banks, J. (2013). The construction and historical development of multicultural education, 1962-2012. *Theory Into Practice, 52*, 73-82.

Blair, J. (2002). Colleges sending teacher-candidates to see the world. *Education Week*, *22*(15).

Blair, T., & Jones, D. (1998). *Preparing for student teaching in a pluralistic classroom*. Boston, MA: Allyn, & Bacon.

Bryan, S. L., & Sprague, M. M. (1997). The effect of overseas internships on early teaching experiences. *Clearing House*, *70*(4), 199.

Clement, M. C., & Outlaw, M. E. (2002). Student teaching abroad: Learning about teaching. *Kappa Delta Pi Record*, *38*, 180-183.

Cushner, K., & Brennan (2007). *Intercultural student teaching: A bridge to global competence*. Lanham, MD: Rowman & Littlefield Education.

Cushner, K. & Brislin (1996). *Intercultural interactions: A practical guide*. Thousand Oaks, CA: Sage.

Dantas, M. L. (2007). Building teacher competency to work with diverse learners in the context of international education. *Teacher Education Quarterly, 34*(1), 75-94.

Darling-Hammond, L. (2006). *Powerful teacher education: Lessons from exemplary programs*. San Francisco, CA: Jossey-Bass.

Doppen, F., & Jing, A. (2014). Student teaching abroad: Enhancing global awareness. *International Education, 43*(2), 59-75.

Doppen, F., Jing, A., & Diki, K. (2016). Why do student teachers go global. *The Journal of Social Studies Research 40*, 85-95.

Gilson, T. W., & Martin, L. C. (2010). Does student teaching abroad affect teacher competencies? Perspectives from Iowa school administrators. *Action in Teacher Education, 31*(4), 3-13.

Irizarry, S., & Williams, S. (2013). Lending student voice to Latino ELL migrant children's perspectives on learning. *Journal of Latinos and Education, 12* (3), 171-185.

MacPherson, S. (2010). Teachers' collaborative conversation about culture: Negotiating decision making in intercultural teaching. *Journal of Teacher Education, 61*(3), 271-286.

Mahon & Cushner (2002). The overseas student teaching experience: Creating optimal culture learning. *Multicultural Perspectives, 4*(3) 3-8.

Mahon, J., & Stachowski, L. (1990). New horizons: Student teaching abroad to enrich understanding of diversity. *Action in Teacher Education*, (3) 13-21.

Malewski, E., Sharma, S., & Phillion, J. (2012). How international field experiences promote cross-cultural awareness in pre-service teachers through experiential learning: Findings from a six-year collective case study. *Teachers College Record, 114*(8), 1-44.

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Merryfield, M. (2000). Why aren't teachers being prepared to teach for global diversity, equity, and global interconnectedness? *Teaching and Teacher Education, 16* (4) 29-43.

National Council of Teachers of English (2008). *English language learners: A policy research brief*. Urbana, IL.

Quezada, R. L. (2005). Beyond educational tourism: Lessons learned while student teaching abroad. *International Education Journal*, *5*(4), 458-465.

Quinn, L., Barr, H., Jarchow, E., Powell, R., & McKay, J. (1995). International student teaching: New Zealand and the United States perspectives on schooling. *Action in Teacher Education*, *12*(3), 13-21.

Shiveley, J., & Misco, T. (2012). Student teaching abroad will help you get a job: Exploring administrator perceptions of international experience value for pre-service teachers. *The International Education Journal: Comparative Perspectives, 11*(1), 52-68.

Shiveley, J., & Misco, T. (2015). Long-term impacts of short-term study abroad: Teacher perceptions of pre-service study abroad experiences. *The Interdisciplinary Journal of Study Abroad, 26*, 107-120.

Stachowski, L., Richardson, J., & Henderson, M. (2003). Student teachers report on the influence of cultural values on classroom practice and community involvement: Perspectives from the Navajo reservation and from abroad. *Teacher Educator, 39*(1), 52-63.

Stachowski, L., & Visconti V. (1998). Service learning in overseas nations: US student teachers give, grown and gain outside the classroom. *Journal of Teacher Education*, *49*(3), 212-219.

Yin, R. K. (2003). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.

Appendix A

Consortium for Overseas Student Teaching (COST)

Participating Universities

- Ashland University
- Auburn University
- Berry College
- Eastern Illinois University
- Grand Valley State University
- Kent State University
- Middle Tennessee University
- Northern Kentucky University
- Ohio University
- Thomas Moore College
- University of Alabama
- University of Georgia
- University of Kentucky
- University of Reno Nevada
- University of Wisconsin

Receiving Countries

- Australia
- Bahamas
- Canada
- Costa Rica
- Ecuador
- France
- Germany
- Greece
- Ireland
- Japan
- Mexico
- New Zealand
- Scotland
- South Africa
- Spain
- Switzerland

Appendix B

Participant Initial Contact

Greetings former COST (Consortium of Overseas Student Teachers) participants! I hope all is well with each of you.

I NEED YOUR HELP. I am conducting a study examining the impact a program such as COST has on students in their teaching careers. I am asking former participants to answer a few short questions, allowing me to analyze the experiences you had. It should take no more than **30 minutes** of your time.

If you are willing to participate (please, please), simply hit respond and send me a phone number and time/day you would like me to contact you. I have attached the questions I will be asking for you to look over prior to our conversation. If you prefer, you can write a response to each and send it back to me instead of a phone conversation—whichever is easiest for you. I have also attached the legal disclosure of the study, as required by law.

If you have kept in touch with other COST participants who may not be getting this correspondence, please pass it along. I hope you will assist me in my endeavor to collect information regarding the COST experience!

Thank you.

Appendix C

Informed Consent Form

Dear COST participant,

Thank you for participating in this survey. The purpose of this questionnaire is to assess and document the experiences of student teachers returning from the COST program. It should also serve to give you an opportunity to share feedback and advice, and in doing so, contribute to the never-ending process of program improvement and refinement. You may also benefit indirectly by gaining knowledge about yourself through the process of formulating responses to the questions asked.

Your participation in the current research is entirely voluntary and your responses will remain completely confidential. If at any time you feel unable or unwilling to continue participating, you have the right to withdraw from participation without prejudice or penalty. This survey should take about one half hour to complete. When you have finished your survey, please save the file and attach it to a "reply" e-mail. With your survey, you will be sent a brief description of the study and given an opportunity to ask any questions you might have via e-mail, phone, or in person with (name of PI).

If at any point you have questions about your participation in this research study, please e-mail (name of PI) at (PI's e-mail). You may also contact (name of chair), the chairperson of (name of university) Human Subject Committee at (phone number of chair).

Signature: _____

Print name: _____

Date: _____

Appendix D

Survey / Interview Questions

1. Where and when did you complete your overseas student teaching?
2. What is your current position or major area if in graduate school?
3. What was the most challenging aspect of the experience at the time?
4. Do you feel your overseas student teaching experience has influenced your cultural awareness / competency? If so, how?
5. Do you feel your overseas student teaching experience has influenced your classroom practices or procedures? If so, how?
6. Do you use information or skills in your current position you acquired while teaching overseas? If so, give examples.
7. Do you feel this experience was helpful in finding employment or guiding your graduate focus? If so, how?
8. How, specifically, do you feel teaching abroad has influenced or impacted you?
9. Would you recommend student teaching abroad to others? Why or why not?
10. Is there anything else you would like to say concerning your experience?

Dr. Sherie Williams is an Associate Professor in the College of Education at Grand Valley State University. Dr. Williams serves as the study abroad advocate for her college and has organized and supervised several study abroad experiences and faculty/student exchanges. She is also the International Director for COST (Consortium for Overseas Student Teaching) which is a 15 university consortium with over 30 overseas placement sites.

Field Experience: A Key Factor in the Development of Teacher Self-Efficacy

Joshua DeSantis and Nicole Hesson

York College

Introduction

The central mission of teacher education is to ready pre-service teachers to be outstanding classroom practitioners. Creating structures that promote the development of pre-service teachers' self-efficacy is an essential component of this mission. This article summarizes the concept of teacher self-efficacy and describes the role of self-efficacy development during pre-service teachers' field experiences. It also presents the results of a study designed to determine the effects of a field experience practicum on the development of self-efficacy among pre-service teachers. Findings from the study and their implications for teacher education curriculum and field experience design are also discussed.

Self-Efficacy and Teacher Education

The traditional teacher education curriculum includes many components. We ready pre-service teachers to employ research-supported pedagogies. We require them to secure comprehensive understandings of the subjects they will one day teach. We oblige them to learn to plan assessments and integrate emerging technologies during instruction. We challenge them to learn classroom management techniques. Teacher education curriculum, by mandate and necessity, has a wide breadth. The comprehensiveness of teacher education curricula, coupled with the enhanced utilization of standardized assessments in teacher education, has caused many pre-service teachers to experience their curriculum as a collection of siloed components. They learn to employ content-specific pedagogies in teaching strategies courses, use an interactive

whiteboard in education technology courses, and employ preventative behavior management techniques in classroom management courses. This practice is a rational response to the structure of higher education and the national accountability in education movement. It is also deeply rooted in the history of teacher education in the United States.

Each component of the traditional education curriculum is essential, but the knowledge and skills embedded in each curricular area are not so neatly divided in practice. Schools are dynamic. Students are unpredictable. Teachers' roles are constantly evolving. Pre-service teachers will be faced with challenges in their career that cannot be foreseen, even by the most prescient teacher educators. To be successful in their careers, pre-service teachers need a foundational understanding of the content and skills taught in traditional teacher education curricula. They must also, however, possess the intellectual and emotional resources to overcome the wide range of unforeseen challenges they will face during their careers. They need to set lofty goals for themselves and organize their own routes to achieving those goals. They must learn from failures and setbacks while building the confidence required to take on difficult tasks. Together, these attributes have been described as self-efficacy (Bandura, 1997). According to Bandura, people with high self-efficacy "approach difficult tasks as challenges to be mastered rather than as threats to be avoided" (p. 2). Possession of this attitude is critical for novices in the teaching profession.

Teacher self-efficacy (TSE), rooted in Bandura's (1997) self-efficacy model, has emerged as both a means of understanding pre-service teachers' readiness to enter the profession and a goal of teacher education curriculum design. According to Tschannen-Moran, Hoy and Hoy (1998), TSE is defined as a "teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular

context" (p. 233). The teaching tasks embedded within this TSE definition have been interpreted in the research to include classroom management (Henson, 2001; Klassen & Chiu, 2010), using educational technology (Abitt, 2011; Brinkerfoff, 2006), and the ability to build students' literacy skills (Guo, Piasta, Justice, & Kaderavek, 2010). The students of teachers with high TSE have been shown to perform better in the classroom than those assigned to teachers with low TSE (Caprara, Barbaranelli, Steca, & Malone, 2006; Mojavezi & Tamiz, 2012). Teachers' possession of high levels of TSE has also been positively correlated to their retention in the teaching profession (Knobloch & Whittington, 2001; Darling-Hammond, Chung, & Frelow, 2002). The ubiquity of the TSE model, and the mounting evidence demonstrating its value, has spurred research exploring how it develops among pre-service teachers.

Field Experience and TSE Development

Bandura (1997) originally identified four conditions that help novice learners develop self-efficacy. These include limiting stressful situations among novice learners, providing robust constructive feedback, allowing novice learners to observe others being successful at the desired skill, and designing opportunities for learners to successfully perform the new skill. Of these four sources, Bandura proposed that engaging in mastery experiences provides a powerful means of self-efficacy development. Tschannen-Moran and Hoy (2007) explored this concept by the self-efficacy beliefs of early-career and veteran teachers. While both groups enjoyed the efficacy-building effects of engaging in mastery experiences, beginning teachers derived much more their TSE from positive interactions with colleagues and encouragement from administrators. Novice teachers, constricted in the frequency and quality of mastery experiences they can engage in, are much more likely to derive their TSE from the quality and frequency of positive social

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interactions among their peers and mentors. This reality compels teacher educators to account for TSE in teacher education curriculum design.

The field experience portion of teacher education curriculum is a natural origin point for the efficacy-building activities described by Bandura and Tschannen-Moran and Hoy. It is pre-service teachers' initial experiences with students and in classroom settings that most directly influence their development of TSE. Moreover, Bandura suggested that learners' self-efficacy beliefs are most malleable during their initial encounters with a novel situation. Numerous studies have found that components of teacher education programs, including field experiences, have positive effects on pre-service teachers TSE (Hoy & Spero, 2005; Palmer, 2006; Pendergast, Garvis, & Keogh, 2011). The TSE-enhancing benefits of field experience has spurred interest among researchers and teacher educators. Much of this attention centers on determining which field experience structures contribute the most to TSE development among pre-service teachers.

TSE and Type of Placement

The conditions at the placement site have an important impact on the quality of experience for pre-service teachers. Variables like the quality of administrative support, parental engagement, and students' academic achievement have significant effects on the lessons pre-service teachers take away from a field experience. Moulding, Stewart, and Dunmeyer (2014) sought out correlations between types of field experience placements and TSE. Their findings indicated that pre-service teachers placed in schools with relatively high percentages of top-achieving students were more likely to register high levels of TSE. These findings were corroborated by Ronfeldt (2012) who found that field experience placement in a difficult school was did not contribute to the retention rates of novice teachers. While the literature includes

many examples of the positive benefits of designing field experience in a diverse array of contexts (Hollins & Guzman, 2005; McKinney, Haberman, Stafford-Johnson & Robinson, 2008; Worthy, 2005; Siwatu, 2011), the current research indicates that self-efficacy is most likely to increase during placements at schools with high percentages of high-achieving students.

TSE and Pre-Service Teacher Aptitudes

Jamil, Downer and Pianta (2012) sought to identify if pre-service teachers' personal characteristics influenced the degree to which they developed TSE. Their findings suggest that extraverted students and students who expressed a belief in the learning potential of all students were most likely to exhibit high levels of TSE. A secondary finding of their work, that the frequency of mastery experiences was not correlated to TSE, validates the supposition that mastery experience are less relevant for novice teachers made by Tschannen-Moran and Hoy (2007). Moulding, Steward, and Dunmeyer (2014) also sought to connect student attributes with TSE development. They found no correlations between TSE and pre-service teachers aptitudes as measured by standardized tests or grade point averages.

Efficacy-Enhancing Field Experience

While the characteristics of placement sites and of pre-service teachers themselves have not yet yielded a correlation with TSE, the research does indicate that some field experience structures are likely to promote TSE development. One prominent structure centers on the relationship between pre-service teachers and field experience mentors. A sustained and constructive relationship between pre-service teachers and their mentors has been shown to be a powerful contributor to pre-service teachers' TSE (Aydin & Woolfolk Hoy, 2005). Creating frequent opportunities for pre-service teachers to authentically reflect on their experiences is a second essential efficacy-building component of field experience (Yost, 2006). The success of a

field experience is also contingent on pre-service teachers connecting the theories and pedagogies they learn in their college classrooms to the practices they observe and participate in during their field experiences (McDonnough & Matkins, 2010; Zeichner, 2010). Pre-service teachers are much more likely to develop TSE when teacher educators include these components in their field experience designs.

Summary and Study Objectives

The author of the present study integrated the efficacy-building structures described in the literature in a novel field experience designed for junior and senior level pre-service teachers seeking secondary education certification. Once constructed, the author sought to explore the effects this field experience had on pre-service teachers' TSE and in their readiness to teach in their content areas. Two questions guided this inquiry: (1) *To what extent did the field experience partnership under study contribute to pre-service teachers' self-efficacy development;* (2) *What pedagogical or classroom-management skills were enhanced among pre-service teachers following their participation in the field experience partnership under study?* Findings from this study inform the scholarly discussion on the role of field experience in assisting pre-service teachers in developing TSE.

Methods

Participants

Participants for this study were pre-service secondary and middle level education students who entered their junior and senior years during the Fall, 2015 semester (N = 21) at a small liberal arts college in south central Pennsylvania. Participants were made eligible for this study through their enrollment in one of four content methods courses and the associated field experience for those courses at the study site. While all participants engaged in the field

experience under study, their placement contexts were contingent on their content certifications. Table 1 displays the number of students placed within each content area during the present study.

Table 1
Participants by content area.

Content Area	Number of Participants
English	4
Mathematics	7
Science	4
Social Studies	6

Field Experience Partnership

The field experience partnership under study addressed the stage three field component of the field experience competencies designated by the Pennsylvania Department of Education, the agency regulating the study site. This level of field experience immediately precedes student teaching and serves as the capstone field experience in the secondary education program at the study site. Pre-service teachers engaging in this level of field experience are expected to engage the professional tasks incumbent on classroom teachers, including planning and delivering lessons, writing tests and lessons, and facilitating communication with school administrators and parents.

The field experience partnership studied during this project is a component of the teacher education curriculum in place at the study site. Students complete this field experience concurrently with one of four content methods courses (English, Mathematics, Science, and Social Studies). All students, regardless of their content concentration, engage in their field experiences at one of two designated sites. Both sites are large, suburban districts near the study site. The partnerships with these districts were secured through memorandums of understanding established in May, 2015. Two administrators at each field experience site solicited host teachers to act as mentors to pre-service teachers during the experience. Invitations were extended to

potential teacher mentors with no fewer than five years of experience at the field experience location and whom expressed both an interest to serve as mentors to pre-service teachers. Each mentor was assigned one pre-service teacher with whom they worked throughout the entire semester. Mentors ensured the pre-service teachers were able to complete their requisite field experience related tasks, assisted the pre-service teachers in developing lessons that supported the curriculum at the host school, and evaluated the pre-service teachers on their professionalism and in their instructional performance.

Instruments

Two measures were used to determine changes in participants' self-efficacy during the field experience under study. The first, titled the *Teacher Sense of Efficacy Survey* (TSES), was originally developed by Tschannen-Moran, M., & Woolfolk Hoy, A. (2001) to measure the self-efficacy of teachers. The TSES includes twenty-four Likert scaled items arranged in three subscales; engagement, instruction, and classroom management. All items from the TSES are presented in Appendix A. Reliability was affirmed for the instrument as a whole, as well as the three subscales. The Cronbach's α values for the instrument, originally reported by Tschannen-Moran and Woolfolk Hoy (2001), are presented in Table 2.

Table 2
Cronbach's α for subscales of the TSES

Subscale	Cronbach's α	SD
TSES Total	.90	.98
Engagement	.81	1.20
Instruction	.86	1.20
Management	.86	1.20

A second instrument, the Pre-Service Teacher Pedagogy and Classroom Management Survey (TPCM), was created to learn participants' confidence levels for various professional actions teachers must engage in and to solicit qualitative data regarding participants' experiences

and TSE changes during the field experience. This instrument was designed by the author for this study. It included three quantitative subscales; planning, instruction, and classroom management. It also included five open-ended items. All TPCM questions are presented in Appendix B.

Procedures

All participants completed the TSES and the TPCM their first meeting of the content methods courses affiliated with this program during the Fall, 2015 semester (methods of teaching English, mathematics, science and social studies). Both instruments were shared as Google Forms. Participants then engaged in the field experience activities under study. The assessments required of the pre-service teachers participating in this partnership measured the degree to which students could perform the competencies designate for stage three field experience. Descriptions of the field experience requirements, activities, and assignments are shared in Appendix C.

The first assessment required the pre-service teachers to conduct three formal observations of lessons taught by either their mentor or another teacher designated by the mentor. The pre-service teachers also taught three comprehensive lesson plans that met the curricular needs in place at their host school site. These lesson plans each included a discipline-specific pedagogy presented during the affiliated content methods courses. For example, students seeking a social studies certification taught lessons that included primary source analysis and Socratic seminars and students seeking an English certification taught lessons that included identifying bias in a non-fiction narrative and analyzing figurative language in a literature text. These lessons were taught on three separate days during the semester as decided by the pre-service teacher and the mentor teacher. The participating pre-service teachers gathered artifacts of each lesson, including photos and videos of their lesson and artifacts of students' work, and

organized them into a ten-minute presentation that described their work. The presentations also included the lessons they had learned from their teaching experience. These presentations were delivered to all the participating peer pre-service teachers during three designated presentation events held during the Fall, 2015 semester.

All assessments (observations, lesson plans, and reflection presentations) were evaluated by the four higher education faculty member teaching the pre-service teachers' affiliated content methods course. The final field experience evaluations, completed by mentors at the host sites, were also collected and used to ensure the pre-service teachers completed the requisite components of the field experience. Mentors also used these evaluations to assess the degree to which students successfully designed and led classroom instruction and performed the other professional responsibilities incumbent upon them during the field experience partnership. Data collection was completed on the final class meeting of each of the four associated content methods courses in December, 2015. The TSES and TPCM were re-administered to participants as Google Forms.

Quantitative Findings

A paired sample *t-test* was employed to compare the pre- and post-field experience TSES scores of the participants. The arrangement of item responses on a Likert scale ensured that the data from the Pre- and Post-TSES samples were interval. The descriptive data that identified the changes in participants' total TSES and TSES subscale scores as recorded by the pre- and post-field experience TSES surveys are displayed in Table 3.

Table 3
Pre- and Post-Field Experience TSES Results

Measure	N	Mean	SD
Pre-Total TSES	21	3.86	0.57
Post-Total TSES	21	3.90	0.63

The null-hypothesis for the paired-sample *t-test*, employed to determine if there was a statistically significant difference between participants' pre- and post-experience total score on the TSES, was that there was no difference between the mean scores for the Pre-TSES and Post-TSES samples. The paired samples *t-test* indicated a p value of 0.80. This value is above the p = 0.05 threshold, confirming the null hypothesis. The results of the paired-sample *t-test* demonstrated that the mean score for Post-TSES samples were not significantly higher than the mean score of the Pre-TSES participants. These results are illustrated in Table 4.

Table 4
Paired-sample t-test comparison of the Pre- and Post-treatment TSES scores

	df	MD	t	p
Pre- and Post-TSES Scores	40	0.05	0.26	0.80

A *t-test* was also employed to compare the pre- and post-field experience TPCM scores of the participants. The arrangement of item responses on a Likert scale ensured that the data from the Pre- and Post-TPCM samples were interval. The descriptive data that identified the changes in participants' total TPCM and TPCM subscale scores as recorded by the pre- and post-field experience TPCM surveys are displayed in Table 5.

Table 5
Pre- and Post-Field Experience TPCM Results

Measure	N	Mean	SD
Pre-Total TPCM	21	3.73	0.41
Post-Total TPCM	21	4.01	0.35

The null-hypothesis for the *t-test*, employed to determine if there was a statistically significant difference between participants' pre- and post-experience total score on the TPCM, was that there was no difference between the mean scores for the Pre-TPCM and Post-TPCM samples. The *t-test* indicated a p value of 0.01. This value is below the p = 0.05 threshold,

indicating a rejection of the null hypothesis. The results of the *t-test* demonstrated that the mean score for Post-TPCM samples was significantly higher than the mean score of the Pre-TPCM participants. Cohen's d (1988) model was utilized to determine the effect. The d was calculated to be 0.76 which, according to Cohen (1988), is a moderate effect. These results are illustrated in Table 6.

Table 6
Paired-sample t-test comparison of the Pre- and Post-treatment TPCM scores

	df	MD	t	p
Pre- and Post-TPCM Scores	40	0.37	3.12	0.01

Discussion

The field experience studied during the present investigation exposed participants to the full range of professional tasks they are likely to encounter in their careers. It was the most sustained and robust field experience the participants had completed; making it a mastery experience as defined by Bandura (1997). The authors hypothesized increases in both self-efficacy and confidence for completing specific tasks required of classroom teachers. Our findings revealed that the field experience program under study did not improve participants' TSE. It did, however have a moderate effect on their self-assurance in their classroom teaching skills.

Teachers' self-efficacy is an artifact of their self-reported confidence for managing the diverse array of challenges they face in the classroom (Tschannen-Moran, Hoy & Hoy, 1998) Our findings, as evidenced by the absence of a statistically significant difference in the pre- and post-treatment TSES scores, revealed students began the field experience program under study with a high degree of self-efficacy, which was maintained throughout the program. While no changes in participants' self-efficacy were found, the authors did identify teachers' confidence

for engaging in specific teaching tasks like preparing formative assessments and holding students' attention during direct instruction. At the conclusion of the field experience the participants in this study felt more confident in their abilities to complete the professional actions related to planning, instruction, and classroom management that were listed in the survey.

Self-Efficacy versus Confidence

Self-efficacy, as defined by Bandura (1997) and refined by Tchannen-Moran and Hoy (2007) is a general construct and refers to an individual's self-reported self-assurance for completing a range of tasks. The TSES was used to assess participants' pre-and post-field experience self-efficacy for teaching. This assessment yielded no significant difference in the pre- and post-experience self-efficacy of participants. This finding, while surprising, is consistent with other evidence in the literature indicating that mastery experiences, like those completed during experience by our participants, are not likely to significantly affect self-efficacy (Jamil, Downer & Pianta, 2012).

Our findings did yield a significant effect on participants' confidence for completing specific teaching tasks, as evidenced by the TPCM. These identified participants' confidence for performing the explicit skills required of classroom teachers, not general self-efficacy. For example, the TSES assessed formative assessment by asking participants "How much can you gauge student comprehension of what you have taught?" The TPCM dialed in this relatively open question by asking participants to what extent their "lesson plans include questions they intend to ask their students". This difference allowed the researchers to assess participants' self-perceived skill readiness for the range of tasks required of classroom teachers. These positive findings are aligned with other scholarship on the effects of field experience on building pre-service teachers' confidence (McDonnough & Matkins, 2010; Zeichner, 2010).

Evidence in the Qualitative Responses

The five open-ended items on the TPCM provided qualitative data on the pre-service teachers' self-assessed areas of strengths and weaknesses. On the first administration of the survey, most participants noted knowledge of their content area and relatability to students as areas of strength. They believed they were able to "present content in multiple ways" and "make the content relatable." Participants also stated they had a "high investment in students" and were able to "connect with students" on a personal level. Most participants identified flexibility as an area of weakness. Only one participant noted his ability to "adapt to unforeseen circumstances" as a strength. On the second administration of the survey, nearly half of the participants noted their ability to adapt their lessons or manage time as a strength. As one participant noted, she was "comfortable changing lesson plans and activities if problems arise or [if she had] to add more content for students to be successful." The pre- and post-survey differences related to adaptability and time management can be explained by the programmatic sequence. Prior to the stage 3 field experiences, pre-service teachers have completed many credit hours within their content areas and comparatively few in education. Within their education classes, the pre-service teachers have completed between 80 and 130 hours in the field, which mainly consisted of making observations and delivering short mini-lessons. This stage 3 experience included 60 hours in the field performing a wide range of professional tasks. For some, it was their first experience planning and delivering a full lesson from beginning to end.

On the second administration of the TCPM, five pre-service teachers still identified time management as a weakness. Four of these five participants were earning a certification in Mathematics and represented roughly half of all the Mathematics pre-service teachers. The fifth

participant (whose certification area was Science) elaborated that she struggled with time management because she had "only generated about five lessons in total" and surmised that time management would "get easier with the more lessons" she created and when she knew "the students a little better" because she would "get a feel for how long an assignment generally takes them." Those participants with a math certification did not elaborate on why they identified time management as an area of weakness. However, it is likely that the pre-service teachers with a concentration in math encountered more questions from their students than their counterparts in other content areas. These additional questions likely interfered with their ability to manage the timing of their lessons.

In addition to flexibility, many students self-identified classroom management as an area of weakness on the first administration of the TCPM. Two students explained that "handling misbehavior" was an area where they had little or no experience. A pre-service teacher indicated she had "anxiety about classroom management." One participant voiced the opinion that the "program does not allow opportunity to practice much classroom management because you have no formal say over students' behavior." As described in a previous paragraph, this is a result of program design. In the current design, the field experience hours are relatively sporadic. Pre-service teachers participate in the classroom once or twice a week for a large portion of the semester. As a consequence of their limited exposure, they have difficulty building rapport with students and rarely get to experience what it is actually like to run a classroom.

Classroom management remained a self-identified area of weakness for several students on the second administration of the survey. However, when asked "what skills did your education coursework this semester provide you with that you are very glad you now possess," some participants remarked that they "learned how to better manage a room" and were "better at

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being clear and direct." Two participants noted that the field experience made them "feel more confident about going into student teaching" (both used the same quote). Although some students still identified classroom management as an area of weakness, overall it appears that the stage 3 field experience increased levels of confidence around classroom management among participants in this study.

Two participants commented that they felt weak in classroom management because it was "awkward" to "jump into a room full of strangers." For the 2016-2017 academic year, the partnerships with the local districts has been expanded so that select students will spend the entire academic year with one host teacher (as part of the stage 3 field experience in the fall and for student teaching in the spring). We have already proposed a study to determine the impact of the singular host teacher experience versus the traditional bifurcated experience. We look forward to discovering the effects of this change in the partnership on pre-service teacher self-efficacy.

Beyond classroom management, many students mentioned knowledge of content-specific teaching pedagogies as skills they were provided with during the semester that they were glad to possess. Students noted that they felt comfortable using these pedagogies in their future classrooms. This is likely because they had been given an opportunity to practice during the field experience partnership.

Conclusion

This current study had some limitations. Our entire sample was only 21 students, and the small number of students in each content class made it impossible to compare results across content area. In the future, we would like to partner with other area colleges to compare more diverse populations and different types of field placement experiences. Furthermore, we were

unable to probe open-ended responses on the TCPM and would have likely gained more insight about the student experience if we had done so. In the follow-up study that is planned, we will conduct focus groups with students that will allow us to garner valuable insight on their stage 3 field experiences and subsequent student teaching experiences. In the follow-up study, we will also collect teaching artifacts (e.g. lesson plans, observation forms, student work) from the pre-service teachers that will add to the qualitative data. These additions will allow for more detailed analysis of the field experience partnership.

The stage 3 field experience partnership was a substantial change to the teacher education program at our institution. We sought to discover the impact of this new partnership. The TSES showed no significant difference pre- and post-field experience partnership, while the TCPM showed a moderate difference. Responses to the qualitative portion of the TCPM revealed that the skills of flexibility, time management, and classroom management were enhanced by participation in the field experience partnership. It appears the field experience partnership contributed in a modest way to the development of our pre-service teachers' self-efficacy.

References

Abbitt, J. T. (2011). An investigation of the relationship between self-efficacy beliefs about technology integration and technological pedagogical content knowledge (TPACK) among preservice teachers. *Journal of Digital Learning in Teacher Education*, *27*(4), 134-143.

Aydin, Y. C., & Woolfolk Hoy, A. (2005). What predicts student teacher self-efficacy. *Academic Exchange Quarterly*, *9*(4), 123-127.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W.H. Freeman.

Brinkerhoff, J. (2006). Effects of a long-duration, professional development academy on technology skills, computer self-efficacy, and technology integration beliefs and practices. *Journal of Research on Technology in Education*, *39*(1), 22-43.

Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, *44*(6), 473-490.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence.

Darling-Hammond, L., Chung, R., & Frelow, F. (2002). Variation in teacher preparation: How well do different pathways prepare teachers to teach? *Journal of Teacher Education, 53*(4), 286-302.

Guo, Y., Piasta, S. B., Justice, L. M., & Kaderavek, J. N. (2010). Relations among preschool teachers' self-efficacy, classroom quality, and children's language and literacy gains. *Teaching and Teacher Education*, *26*(4), 1094-1103.

Henson, R. K. (2001). *Relationships between Preservice Teachers' Self-Efficacy, Task Analysis,*

    and Classroom Management Beliefs. Presented at the Annual Meeting of the Southwest

    Educational Research Association, New Orleans, LA.

Hollins, E. R., & Torres Guzman, M. (2005). Research on preparing teachers for diverse

    population. In M. Cochran-Smith & K. Zeichner (Eds.), *Studying teacher education: The*

    report of the AERA Panel on Research and Teacher Education (477-544). Mahwah, NJ:

    Lawrence Erlbaum

Hoy, A. W., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of

    teaching: A comparison of four measures. *Teaching and teacher education*, *21*(4), 343-

    356.

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction:

    Teacher gender, years of experience, and job stress. *Journal of educational*

    Psychology, *102*(3), 741.

Knobloch, N., & Whittington, M. S. (2002). Novice teachers' perceptions of support, teacher

    preparation quality, and student teaching experience related to teacher efficacy. *Journal*

    of Vocational Education Research, *27*(3), 331-341.

McDonnough, J. T., & Matkins, J. J. (2010). The Role of Field Experience in Elementary

    Preservice Teachers' Self-Efficacy and Ability to Connect Research to Practice. *School*

    Science and Mathematics, *110*(1), 13-23.

McKinney, S. E., Haberman, M., Stafford-Johnson, D., & Robinson, J. (2008). Developing

    Teachers for High-Poverty Schools: The Role of the Internship Experience. *Urban*

    Education, *43*(1), 68-82.

Mojavezi, A., & Tamiz, M. P. (2012). The Impact of teacher self-efficacy on the students'

    motivation and achievement. *Theory and Practice in Language Studies*, *2*(3), 483-491.

Moulding, L. R., Stewart, P. W., & Dunmeyer, M. L. (2014). Pre-service teachers' sense of

    efficacy: Relationship to academic ability, student teaching placement characteristics, and

    mentor support. *Teaching and Teacher Education, 41*, 60-66.

Palmer, D. (2006). Durability of changes in self-efficacy of preservice primary

    teachers. *International Journal of Science Education*, *28*(6), 655-671.

Pendergast, D., Garvis, S., & Keogh, J. (2011). Pre-service student-teacher self-efficacy beliefs:

    An insight into the making of teachers. *Australian Journal of Teacher Education*, *36*(12),

    4.

Ronfeldt, M. (2012). Where should student teachers learn to teach? Effects of field placement

    school characteristics on teacher retention and effectiveness. *Educational Evaluation and

    Policy Analysis*, *34*(1), 3-26.

Siwatu, K. O. (2011). Preservice teachers' sense of preparedness and self-efficacy to

    teach in America's urban and suburban schools: Does context matter? *Teaching and

    Teacher Education, 27*(2), 357-365.

Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and

    measure. *Review of educational research*, *68*(2), 202-248.

Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive

    construct. *Teaching and Teacher Education, 17*, 783-805

Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs

    of novice and experienced teachers. *Teaching and teacher Education*, *23*(6), 944-956.

Worthy, J. (2005). 'It didn't have to be so hard': the first years of teaching in an urban school. *International Journal of Qualitative Studies in Education*, *18*(3), 379-398.

Yost, D. S. (2006). Reflection and Self-Efficacy: Enhancing the Retention of Qualified Teachers from a Teacher Education Perspective. *Teacher Education Quarterly*, *33*(4), 59.

Zeichner, K. (2010). Rethinking the connections between campus courses and field experiences in college-and university-based teacher education. *Journal of Teacher Education*, *61*(1-2), 89-99.

Appendix A
Teacher Sense of Efficacy Survey

1. How much can you do to get through to the most difficult students?
2. How much can you do to help your students think critically?
3. How much can you do to control disruptive behavior in the classroom?
4. How much can you do to motivate students who show low interest in school work?
5. To what extent can you make your expectations clear about student behavior
6. How much can you do to get students to believe they can do well in school work?
7. How well can you respond to difficult questions from your students
8. How well can you establish routines to keep activities running smoothly?
9. How much can you do to help your students value learning?
10. How much can you gauge student comprehension of what you have taught?
11. To what extent can you craft good questions for your students?
12. How much can you do to foster student creativity?
13. How much can you do to get children to follow classroom rules?
14. How much can you do to improve the understanding of a student who is failing?
15. How much can you do to calm a student who is disruptive or noisy
16. How well can you establish a classroom management system with each group of students?
17. How much can you do to adjust your lessons to the proper level for individual students?
18. How much can you use a variety of assessment strategies?
19. How well can you keep a few problem students form ruining an entire lesson?
20. To what extent can you provide an alternative explanation or example when students are confused?
21. How well can you respond to defiant students?
22. How much can you assist families in helping their children do well in school?
23. How well can you implement alternative strategies in your classroom?
24. How well can you provide appropriate challenges for very capable students?

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Appendix B
Pre-Service Teacher Pedagogy and Classroom Management Survey
Quantitative Portion – Participants will respond with one of the following answer choices:
Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree.

Planning
My lesson plans are sufficiently detailed.
I know several techniques to help me teach my subject.
I know how to plan for various types of learners.
My lesson plans include questions I intend to ask my students.
I employ one or more content-specific pedagogies in nearly every lesson.
I am confident in my ability to plan excellent lessons as I begin my teaching career.
My plans are adaptable for students of varying ability levels.
I do not include formative assessment in my planning.
I create high-quality materials to accompany my plans (readings, audio-visuals, technological
components, graphic organizers).

Instruction
Students interact with each other frequently as part of my instruction.
Too few students participate when I teach.
I frequently gather informal formative assessment during my lessons.
My plans frequently take much longer or much shorter than I planned.
I can take advantage of student interest during my lessons.
I can lead high-quality class discussions with my students.
Students are highly engaged in my lessons.
I do not feel comfortable modifying instruction mid-lesson to account for student interest,
scheduling disruptions, or unforeseen circumstances.
I feel confident in delivering high-quality instruction as I begin my teaching career.

Classroom Management
I know the routines, rules, and procedures I want for my classroom.
I arrange my physical classroom space in a way that enhances student learning.
I have a classroom management philosophy that I adhere to.
I have many more positive interactions with students than negative ones.
I feel comfortable establishing disequilibrium with my students (safely allowing students to leave
their comfort-zones).
I can effectively manage moderate to severe student disruptions during my lessons.
I am comfortable using a variety of preventative and supportive classroom management
strategies with students.
I speak to students respectfully at all times.
I frequently show too much emotion in my responses to student misbehavior.

Qualitative Portion – Students will respond to the following open-ended question prompts.
What elements of teaching are areas of strength for you?
What are your areas of weakness as they relate to your teaching?

What skills did your education coursework this semester provide you with that you are very glad you now possess?

What skills, not covered during your education coursework this semester, did you hope would be covered?

What do you want the education department faculty to know about the secondary education curriculum at [our college]?

Appendix C
Summary of Field Experience Tasks and Assignments

The SE Stage 3 Field Experience courses include a 60 hour field experience requirement. This field experience…

- *Is to be conducted with a practicing, full-time, licensed Secondary teacher.*
- *Must occur in a school setting.*
- *Will include contact hours in the school, including designing and teaching three separate lessons and observing and reflecting lessons taught by your host teachers and/or other teachers in your content area.* (45 Contact Hours)
- *Will also include time creating classroom resources as agreed upon by your host teacher and travelling.* (15 hours creating materials).
- *Must be completed before the final day of class (not finals) to be issued a grade for the course. Students who do not complete the field experience will be issued an "I" for the course and given 2 months to complete it. If the field experience is not completed it will convert to a "0".*
- *Students that do not successfully complete the field experience for this course will not be cleared to schedule for their student teaching semester.*

Instructions

1. Secure all clearances in the education office. All clearances must be less than one year old. You are not permitted by the York College Education Department to enter a school without first securing valid clearances and ensuring photocopies of those experiences are on file in the Education Office.
   - ✓ **PA Child Abuse**
   - ✓ **PA State Police Clearance**
   - ✓ **PA FBI Clearance**
2. Conduct your on-site and off-site field experience activities
3. Keep logs recording all of your work
4. Ensure you receive all your required signatures and initials
5. Gather and submit all required materials

On-Site Tasks (45 Hours completed in a school setting)
   - ✓ Log each visit to the host activities. Suggested activities to participate in during visits include (but are not limited to)…
     - o Assisting with small groups in host teachers' classrooms
     - o Leading short instructional activities designed by the host teacher
     - o Assisting in assessing student work (if given permission by the host teacher)

- o Creating materials for the host teacher (primary sources, graphic organizers, projects, etc.)
- o Observing other teachers in different subjects and grades
- o Assisting in the completion of teacher's assignments (lunch duty, dismissals, team, department, or faculty meetings, parent-teacher conferences, tutoring, study hall, etc.)
- ✓ 3 full lesson observations and reflections (includes the following – about 1 page each [typed and double-spaced])
  - o Summary of a lesson (purpose, methods, resources, technologies)
  - o Reflection on strengths/weaknesses of lesson
- 3 full lessons taught.
  - o Each lesson must include at least one instructional strategy covered during the course.
  - o Must include a thoroughly completed lesson plan including comprehensive reflections.
  - o Must include all associated materials (PowerPoints, worksheets, activities, graphic organizers).
  - o While inspiration may be obtained from the internet, all materials MUST be created by you.

Off-Site Tasks (15 Hours completed off-site)
- ✓ Traveling to host site
- ✓ Creating materials for the on-site field experience
  - o Drafting Lesson Observations and reflections
  - o Creating lesson plans
  - o Creating student materials (handouts, PowerPoints, resources, worksheets, primary sources, etc.)
- ✓ Creating your unit plan
  - o Interpreting Standards
  - o Creating Assessments
  - o Designing Lesson Plans
  - o Creating Student Materials

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Exploring the Efficacy of an CBM-Focused Field Experience

Through a District and University Partnership

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In today's accountability-driven era of education, assessment data should be used to identify students who need more support and to evaluate the effectiveness of educational programs (Allington, 2012). Ideally, the skills and knowledge required to administer, score, and interpret data should have been learned and mastered by preservice teachers during their education preparation programs (Al Otaiba & Hosp, 2004). However, educator preparation programs have been extensively criticized by a variety of researchers and organizations for failing to effectively prepare preservice teachers (e.g., Carnegie Task Force, 1986; Coltheart & Prior, 2006; Holmes Group, 1986; Ishler, Edens & Berry, 1996; Kauffman, 1999; Kavale & Forness, 2000; Labaree, 1996; Lucas, 1997; National Commission on Teaching and America's Future, 1996). Unfortunately, no matter how dated, those complaints are still justified. Kena et al. (2016) shared, according to the National Assessment of Educational Progress (NAEP) that approximately 64% of 4th graders and 66% of 8th graders in the United States cannot read at the proficient level, a statistic that has not significantly improved since 2007. Additionally, in 2015, 60% of 4th graders and 67% of 8th graders nationally scored below proficient in math (Kena et al, 2016). The evidence is clear: educator preparation programs must work harder to teach preservice teachers the professional knowledge and pedagogical skills they need to maximize the learning outcomes of students (Prasse et al., 2012).

Assessment Literacy

The knowledge and skills needed by preservice teachers to improve student learning has been expertly summarized by Reschly and Wood-Garnett (2009). Those competencies start with a deep-seeded belief and understanding that all students have the ability and want to learn. Proficient preservice teachers pair that belief with a range of problem-solving skills including the ability to (a) gather reliable student-level data, (b) monitor student progress using a variety of assessments, (c) note and monitor student behavior, (d) effectively communicate student performance with diverse audiences, and (e) incorporate evidence-based interventions into their instructional routine with integrity (Reschly & Wood-Garnett, 2009). In other words, to improve the learning of all students, teachers need to be assessment literate, which Popham (2009) defined as an educator's understanding and level of expertise with the basic concepts of classroom-related measurement.

A variety of educational researchers have noted the lack of in-service teachers' skills with assessment literacy and related educational measurement topics, which might very well be the reason a majority of American students struggle to meet grade-level academic learning expectations (e.g., DeLuca & Klinger, 2005; Popham, 2008, 2009). Therefore, preservice and in-service teachers alike must become more skilled with assessment literacy topics. "Assessment literacy is a sine qua non for today's competent educator, and must be a pivotal content area in preservice teacher education programs." (Popham, 2009, p. 4).

Unfortunately, educational measurement researchers have repeatedly shared their concerns about the inadequacy of both in-service and preservice teachers' knowledge of, skills with, and attitudes about assessment literacy. While Popham (2009) reported an increase in the educational measurement course requirements of educator preparation programming, preservice

and in-service teachers alike continue to demonstrate low-levels of assessment literacy and find the work challenging (Athanases, Bennett & Wahleithner, 2013; DeLuca & Bellara, 2013; Giannakaki, Hobson, & Marderez, 2011; Mertler, 2003a, 2004b; Stobaugh, Tassell & Norman, 2010; Volante & Fazio, 2007; Wayman & Jimerson, 2014).

Mertler (2003, 2004) found that on average preservice teachers had a lower level of assessment literacy than in-service teachers irrespective of the amount of time that passed since their most recent educational measurement course. This is concerning because Stiggens (1999) reported in-service teachers typically spend between 30% and 50% of their time engaged with and completing a variety of assessment activities. Further, Stiggens (2004) found that very few in-service teachers feel equipped with the knowledge and skills needed to collect and analyze student-level data and postulated the low assessment literacy confidence levels of in-service teachers may be due a lack of opportunities to learn those skills as preservice teachers (Stiggens, 2004).

To investigate Stiggens (2004) claim, Volante and Fazio (2007) used a survey to examine preservice teachers changing perceptions of their competence with the concepts of assessment literacy during the four years they were enrolled in their education preparation program. Results demonstrated that preservice teachers wanted more practical knowledge about assessments that included generally accepted universal assessment practices, scoring and administration (Volante & Fazio, 2007). Similarly, Begeny and Martens (2006) surveyed students at a variety of universities and colleges in the Northwest and found that participants received minimal amounts of practical training related to academic assessment practices. The researchers noted this general lack of training in academic assessment and educational measurement could have serious

consequences on the methods used by in-service teachers to assess students (Begeny & Martens, 2006).

Alkharusi, Kazen and Al-Musawai (2011) studied the differences between a sample of 279 preservice and 233 in-service teachers using a questionnaire that measured their knowledge of, perceived skills in, and attitudes related to a variety of assessment literacy and educational measurement related topics. Results demonstrated that in-service teachers had lower levels of knowledge, higher skill self-perceptions, and a more positive attitude about assessment literacy and educational measurement than their preservice counterparts (Alkharusi, Kazen & Al-Musawai, 2011), which supports the findings of Criswell and Criswell (1995) who found that preservice teachers may benefit from operationalizing assessment literacy knowledge into classroom settings to connect assessment literacy concepts with the ongoing assessment activities.

Coulter, Shavin & Gichuru (2009) studied how preservice teachers enrolled in one of two education classes at a western university in the United States assessed and categorized oral reading samples of 1st and 6th grade readers using the ORF subtest of DIBELS (Good & Kaminski, 2002). The authors found that, on average, the preservice teachers correctly classified an audiotape of a 1st grade student using standardized DIBELS cutoff points. However 48.8% of preservice teachers inaccurately categorized the audiotape simulation of a 6th grade reader when a different reading classification was more suitable. Similarly, Reeves & Honig (2015) examined how a 6-hour data scoring and analysis activity impacted preservice teachers' perceptions, beliefs and attitudes about the assessment literacy. The authors shared after the intervention, the study participants reported somewhat higher levels of confidence and efficacy with data and

moderately stronger beliefs in the validity of assessment data than they did before the intervention.

Of special note, each of the above studies measured the assessment literacy perceptions of preservice and in-service teachers, or provided simulations of topics associated with assessment literacy. However, there is an absence in the body of assessment literacy research that investigates how preservice teachers perform in a real classroom-setting as they assess students. Thus, special weight needs to be placed on providing preservice teachers with the opportunities to maximize their assessment literacy knowledge and gain experience with monitoring student progress during their educator preparation program in classroom settings.

Field Experiences

Prater and Sileo (2002) shared that traditional student teaching models, typically the culminating activity of educator preparation programs, are not capable of providing preservice teachers with the comprehensive range of experiences needed to positively impact student learning early in their professional career. More recently, Ronfeldt (2012) found that high-quality field-based experiences that take place in schools and classrooms over multiple semesters generally have a positive impact on pre-service educators' ability to impact student learning. Ronfeldt and Reininger (2012) expanded, sharing that multi-semester field-based experiences tend to help preservice teachers feel prepared and efficacious as they work with students in a classroom-setting. Further, multi-semester school-based experiences often provide teacher candidates with the ability to positively and thoughtfully develop a wide range of effective teaching behaviors (Ronfeldt, 2012; Ronfeldt & Reininger, 2012), including those that are focused on developing preservice teachers confidence with assessment literacy (DeLuca & Bellara, 2013). Alkharusi (2009) noted for the ideal assessment of student learning to occur,

teachers must have gained the requisite knowledge, skills, and positive attitudes about education measurement. Therefore, any assessment-related experience preservice teachers have during the course of their student teaching experience can be used to build a strong foundation of skills in assessment literacy (DeLuca & Klinger, 2010).

Curriculum-Based Measurement (CBM)

Stecker, Fuchs & Fuchs (2005) shared that when assessing student progress to enhance learning, using tools that are technically sound and provide reliable data is crucial. Additionally, DeLuca, Chavez and Cao (2013) found when in-service teachers understand assessment theory and can apply it in their professional practice, there is an increased likelihood that the data those assessments yield will be interpreted in more reliable and valid ways (Popham, 2004, 2008). Curriculum-based measures (CBM) are a well-researched and technically valid type of formative assessment that can be used to monitor individual student progress in the areas of reading, math, spelling, and writing (Brown-Chidsey & Steege, 2010; Deno, 1985; Foegen, Espin, Allinder, & Markell, 2011). A variety of researchers have found that CBMs of students' oral reading fluency are particularly useful because the one-minute measures are efficient, can be used to accurately predict a student's future reading skills, and can be used to monitor the progress of students in general- and special-education settings (e.g., Barger, 2003; Buck & Torgesen, 2003; Johns, 2005; Vander Meer, Lentz, & Stollar, 2005; Wilson, 2005). The challenge of preparing new teachers to use CBM tools effectively in schools when they begin their teaching career can be addressed by educator preparation programs that create clinical partnerships with school districts and individual school partners.

The purpose of this study was to examine the outcomes of a partnership developed between a university special education teacher preparation program and a suburban school

district in the western part of the United States. The study examined the impact of a CBM-focused field experience on the ability of district elementary schools to collect student-level progress monitoring data within a Response to Intervention /Multi-Tiered System of Supports (RTI/MTSS) framework and evaluate the impact of this experience on pre-service special education teacher candidates. Specifically, the study aimed to determine whether pre-service teachers would prove to be a viable resource to collect student-level progress monitoring data. The researchers wanted to evaluate whether teacher candidates would be able to administer the assessments accurately and with fidelity when compared with classroom teachers. Additionally, the researchers sought to ascertain if the classroom teachers working in the schools would find the assistance of the teacher candidates helpful, and whether the teacher candidates found the experience beneficial.

Method

After being approved by the university's Institutional Review Board, a partnership was forged between a suburban school district in the Rocky Mountain region and a university special education teacher preparation program. Six elementary schools within the district designated a cooperating teacher who served as the primary liaison between the school and the university personnel. A single teacher candidate from the university was assigned to each of the six schools.

Once the teacher candidates were assigned to their respective schools, they were trained to administer AIMSweb Reading Curriculum Based Measures (AIMSweb R-CBM) assessments. Data was gathered to assure that both the teacher candidates and the cooperating teachers were able to administer the CBMs with fidelity. Student progress monitoring data was gathered using the AIMSweb oral reading fluency assessments, which were already being used within the

schools before the study started. After all progress monitoring data had been gathered, teacher candidates and cooperating teachers were asked to complete a survey measuring their perceptions of the experience, and were interviewed to gather feedback on specific aspects of the project.

Participants

The six classroom teachers who participated in the project and served as the coordinating teachers were all female. One of the cooperating teachers served students with gifts and talents (GT), one was a teacher on special assignment (TOSA) and the remaining four (66%) were literacy specialists. Five (83.3%) of the cooperating teachers had a master's degree, and one (16.7%) had earned her Ph.D. A majority of the teachers included in the sample (83.3 %) had completed some type of specialized training in assessment. The cooperating teachers had between 7 and 27 years of experiences working in schools with students.

While participation in this project was open to each teacher candidate who met the initial requirements, the first six individuals to sign up were selected to participate in the study. Each of the teacher candidates were undergraduates majoring in special education and had a grade-point average of 3.0 or higher. Two of the teacher candidates were juniors, and the remaining candidates were seniors. Each of the six was in the final two or three semesters of their program and had completed a required university course focused on assessment.

Materials

AIMSweb's Oral Reading Fluency measure (AIMSweb R-CBM) is a standardized, research-based CBM that is sensitive to incremental growth in reading rate and can be used both as a universal screener and progress monitoring tool (Shinn & Shinn, 2002). The AIMSweb R-CBM was selected as the assessment tool for the project because of its effectiveness, because the

one-minute CBM measures could be administered by the project participants without disrupting classroom instruction, and because it was already being used within the district elementary schools with teachers who participated in the study.

Data Analysis

Implementation fidelity was measured using the AIMSweb Accuracy of Implementation Rating Scale (AIRS). AIRS evaluates the assessors' level of conformity using a set of 14 identified behaviors and actions, provides opportunities for multiple fidelity checks, and standardizes the AIMSweb testing process. When AIRS was used to quantitatively measure both participant groups, the teacher candidates used the CBM accurately 98.6% of the time, while the cooperating teachers accurately used the CBM 93.8% of the time, with an inter-rater reliability rate of 99%. Individual AIRS results demonstrated the largest difference between the two groups of participants were noted when comparing the use of standardized directions. Data for the two groups of participants were measured a total of 88 times during the project (Teacher candidates $n = 63$, cooperating teachers $n = 25$).

To analyze the CBM data, a single two-level random-intercept hierarchical linear model was run, incorporating students (Level 1) nested within classrooms (Level 2) to model the relationship between the dependent and independent variables while properly accounting for the correlated and nested structure of the data (Singer & Willett, 2003; Woltman, Feldstain, MacKay & Rocci, 2012) Answers to open-ended survey questions were also analyzed at the end of the project to qualitatively evaluate the project's impact on the teacher candidates and cooperating teachers who participated in the study.

Results

Model A: Unconditional Means Model

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This model, which calculated a single average for the student progress monitoring data without including any additional predictor variables, indicated that there was a significant amount of unexplained within-student variability in the model. Additionally, the model included a significant amount of between-student initial status variability, which measures the amount of difference between initial values of individual students included in the sample. The data demonstrates that a larger portion of the variability was attributable to differences between students ($p < .05$) as compared to the within student data. As such, this model did not yield any surprising information, was not of primary interest, nor included in further analysis or evaluations.

Model B: Unconditional Growth Model

The statistical information analyzed in the second model indicates that there was significant amount of unexplained within-student variability ($p > .05$) in the data. However, the within-student variability was less than the total student variability of the previous model. This implies that the amount of change demonstrated by students longitudinally could be used to help explain the model's overall outcome. Because this current model permitted individual student growth trajectories to change over time, it yielded a smaller amount of unexplained variability in the 'within student' data. Therefore, a significant amount of student-specific initial status variability, which is the amount of variability in the initial values between students, was observed and used to explain the final outcomes. However, there was no evidence of a correlation between student specific initial status, and their overall rate of change.

Model C and D: Above-Grade Reading Level as a Level-2 Fixed Effect Covariate

The third and fourth nested models of the hierarchical linear regression analyzed the impact that a student's beginning reading level had on the outcome variable. Data of students

who were reading above-grade level were analyzed to determine if there was an overall effect. The data demonstrated that the rate of change over time was a significant predictor variable of reading scores, and that a student's reading level did contribute significantly to the prediction of their final scores ($p > .05$). In Model C, analysis revealed that there was no significant correlation between students who were reading above grade-level and student reading scores over time, so the interaction effects between the above-grade term and the rate of change over time were not included in subsequent models.

Model E: Effect of Universal Administration on Student Outcomes

This model investigated whether the individual administering the reading assessment impacted student growth rates, and as such was of primary interest to the researchers. The data demonstrates that there was not a significant relationship between the individual who administered the CBM and the student's average score ($p < .05$). In other words, on average, students reading scores were similar, and not dependent on whether the classroom teacher or student teacher was the administrator of the assessment.

Model F: The Effect of Individual Teacher Candidates on Student Scores

This final model of the hierarchical linear regression investigated the impact that individual teacher candidates and cooperating teachers had on student reading scores. While this model was not of primary interest to the researchers, the analysis demonstrated that there was a significant difference in the average scores between teacher candidates' scores and cooperating teachers' scores. However, and perhaps unsurprisingly, the above-grade reading level and time predictor variables continued to have a significant effect on the model ($p > .05$).

Table 1

Fixed Effects and Standard Errors

		Unconditional		Above Grade		University Administrator	
	Parameter	A	B	C	D	E	F
		Coeff. SE	Coeff. SE	Coeff. SE	Coeff. SE	Coeff. SE	Coeff. SE
Initial Status							
Y-intercept	G00	80.00 1.71	62.94 1.81	63.08 1.58	63.12 1.57	63.04 1.58	63.19 1.58
Above Grade	G01			25.00 2.14	25.58 1.87	25.61 1.87	25.59 1.87
University Adm	G02					-1.37* .92	-7.34* 4.69
Rate of Change							
Y-intercept	G10		1.38 .05*	1.30 .06	1.29 .06	1.31 .06	1.30 .06
Above Grade	G11			.05* .09			
University Adm	G12						.38 .29

Notes. Coeff. = Model Coefficient, SE = Standard Error

*coefficient is *not* significant, p-value >.05; all other values significant

Qualitative Findings

Qualitative data from cooperating teacher surveys and individual interviews were used to qualitatively evaluate this project. The cooperating teachers shared that the project's partnership with the university and the teacher candidates helped them to consistently collect student progress monitoring data. Additionally, the partnership ultimately provided the cooperating teachers with more time for teaching. Finally, the cooperating teachers stated that the project helped strengthen their school's relationship with the university. Qualitative data provided by the teacher candidates demonstrated that the teacher candidates appreciated (a) learning about and using a CBM that is commonly used in schools, (b) the opportunities the project provided for

practice in a school-setting, and (c) being provided with the chance to form relationships with potential future employers.

Both groups of participants, teacher candidates and cooperating teachers, made suggestions that could be used to strengthen similar projects in the future. The cooperating teachers shared that (a) having a consistent testing schedule would have been beneficial, (b) they would have liked the teacher candidates to be trained on a wider assortment of CBM tools, and (c) teacher candidates could have benefited from more time to become familiar with the elementary students they tested before the project began. The teacher candidates also indicated that they would have liked to work in more than one school, wanted a clearer picture on the amount of time that participating in the project would require, and wanted to increase the communication channels to ensure that their questions were answered in a timely manner before assessing the students.

The project researchers identified three outcomes of the project that are noteworthy. First, the cooperating teachers stated that the project positively impacted the schools, the teacher candidates, and the overall relationship the school had with the university. The teacher candidates also identified that the project improved their competency and ability to use the curriculum-based measures to assess and monitor student progress in reading. Finally, the quantitative data demonstrated that all of the teacher candidates were able to administer the CBM with fidelity and accurately score the assessment.

Discussion

Research has clearly demonstrated the importance of field experience opportunities for teacher candidates as they prepare to enter the teaching profession (LaMaster, 2001). Professional agencies have responded to this research base and continue to encourage teacher

preparation programs to embed more high-quality field experience opportunities in their programs, including opportunities related to assessing students in schools. While embedding more quality field experiences can benefit teacher candidate preparation, increasing accountability standards have pushed schools to be more cautious in deciding who works with their students.

One of the primary questions in this study examined whether teacher candidates could collect student data as accurately as practicing cooperating teachers. If teacher candidates could not accurately collect student data, then it would not be feasible to build similar field experience opportunities into teacher preparation programs. However, if the teacher candidates could accurately collect student data, the model could be used in the future to both provide teacher candidates with an additional field experience opportunity that was valuable and relevant and provide needed resources to schools that could be used by teachers to deliver more instruction instead of spending large amounts of time administering CBMs. The analysis of the nested data demonstrates that there was no difference in student performance on the CBM between the individual who administered the assessment (i.e., cooperating teacher and teacher candidates). Data also demonstrated that the teacher candidates implemented the R-CBM assessments with a greater level of fidelity than the cooperating teachers. This means that schools can have confidence in the abilities of trained teacher candidates to collect R-CBM data and that educator preparation programs can embed CBM-related field experiences to expand the learning opportunities in schools for their teacher candidates.

While the quantitative data demonstrated that quality school-university partnerships focused on assessment can be developed, this study also examined whether the participants valued the experience. Comments gathered from surveys and during interviews of the two groups

of participants identified a variety of positive impacts. A majority of the cooperating teachers indicated that having teacher candidates in the school allowed them to collect student data efficiently and provide better services to their students than if the teacher candidates had not participated. For example, one cooperating teacher stated "… it helped gather data quicker to analyze the effectiveness of the services." A second teacher commented "… I feel that having another person here to administer them helped ensure they (the CBM measures) were being given." Finally, at the end of the project, school personnel indicated that they received the needed resources which enabled them to consistently gather student data.

The teacher candidates shared that they both appreciated the opportunity to practice progress monitoring and the additional exposure to a popular curriculum-based measurement tool: "(the project) provided me with specific practice in effectively administering CBMs. (It also) provided the school with a helping hand and another person to help with data collection and progress monitoring." Another student noted that the project allowed her to "…apply the knowledge I have learned in my assessment courses, which we really do not get the chance to do while in class." Finally, one student noted that the project enabled her to "gain a lot more confidence in the area of assessment and being able to administer assessments myself." Teacher candidates also appreciated the project because they were able to gain valuable experience and further their reading assessment skills before beginning their teaching career. Finally, the teacher candidates, cooperating teachers, and university researchers stated that they valued the opportunity provided enabling relationships that would facilitate future partnerships.

Limitations

As with all research, the current study has a variety of limitations. First, the study included a small sample of cooperating teacher ($n= 6$) and teacher candidates ($n= 6$). Future

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studies should strive to include a larger sample, and include students from programs that do not have any courses focusing on assessment before the results can be generalized to the population. Second, the students included in the study were all enrolled in a single school-district and all were in elementary schools. A larger range of grade-levels may change the study's outcomes. Finally, the qualitative data provided by the teacher candidates was submitted to the university faculty member and primary investigator, and therefore is subject to a certain degree of bias.

Future Research

The results of this study indicated the potential positive impact of having teacher candidates collect CBM data in schools as part of a district and university clinical partnership. Due to the relatively small sample size, this project should be replicated on a larger scale to establish whether the results and finding can be duplicated in a variety of settings. Additional CBM tools should be incorporated into the design of future research to establish whether the results can be replicated. Finally, future research should identify additional areas of similar need within K-12 educational settings and teacher preparation programs in order to develop reciprocal partnerships to meet the needs of both organizations.

Dr. Pierce's research interests include studying how to effectively implement of Response to Intervention/Multi-Tier System of Supports (RTI/MTSS) at the school and district level, and the evaluation of the impact of RTI/MTSS on student academic and behavioral outcomes. Additionally, Dr. Pierce is interested in evaluating the impact of traditional and apprenticeship models of special education teacher preparation on teacher effectiveness.
Mrs. Sherman is a former classroom teacher and reading specialist whose interests include discovering how effective implementation efforts of the MTSS framework impacts student reading achievement. Currently, Mrs. Sherman is doctoral student in the School of Special Education at the University of Northern Colorado in Greeley, Colorado.
Mr. Kreider earned a MS in Statistics from Kansas State University and is currently completing a PhD in Applied Statistics from the University of Northern Colorado. He has a background in medical as well as educational research with a primary focus on the modeling of longitudinal and multivariate data.

References

Al Otaiba, S., & Hosp, M. K. (2004). Providing effective literacy instruction to students with Down syndrome. *Teaching Exceptional Children*, *36*(4), 28-35.

Alkharusi, H. (2009). Correlates of teacher education students' academic performance in an educational measurement course. *International Journal of Learning, 16*(2), 1–15.

Alkharusi, H., Kazen, A. M., & Al-Musawai, A. (2011). Knowledge, skills, and attitudes of preservice teachers and in-service teachers in educational measurement. *Asia-Pacific Journal of Teacher Education, 39*(2), 113-123. doi: 10.1080/1359866X.2011.560649

Allington, R. L. (2012). What at-risk readers need. *Educational Leadership, 69*(9), 1-5.

Athanases, S. Z., Bennett, L. H., & Wahleithner, J. M. (2013). Fostering data literacy through preservice teacher inquiry in English Language arts. *The Teacher Educator, 48*(1), 8-28. doi: 10.1080/08878730.2012.740151

Barger, J. (2003). *Comparing the DIBELS oral reading fluency indicator and the North Carolina end-of-grade reading assessment* (Tech. Rep.). Asheville, NC: North Carolina Teacher Academy.

Begeny, J. & Martens, B. K. (2006). Assessing pre-service teachers' training in empirically-validated behavioral instructional practices. *School Psychology Quarterly, 21*(3), 262-285.

Brown-Chidsey, R., & Steege, M. W. (2010). *Response to intervention: Principles and strategies for effective practice* (2nd ed.). New York, NY: Guilford.

Buck, J., & Torgesen, J. (2003). *The relationship between performance on a measure of oral reading fluency and performance on the Florida Comprehensive Assessment Test (FCRR Tech Rep No. 1)*. Tallahassee, FL: Florida Center for Reading Research.

Carnegie Taskforce (1986). A nation prepared: Teachers for the 21st century. *Education Digest 52*, 8-9.

Coltheart, M., & Prior, M. (2006). Learning to read in Australia. *Australian Journal of Learning Difficulties*, *11*(4), 157-164.

Coulter, G., Shavin, K., & Gichuru, M. (2009). Oral reading fluency: Accuracy of assessing errors and classification of readers using a 1-min timed reading sample. *Preventing School Failure, 54*(1), 71-76.

Criswell, J. R., & Criswell, S. J. (1995). Modeling alternative classroom assessment practices in teacher education coursework. *Journal of Instructional Psychology, 22*, 190-193.

DeLuca, C. & Bellara, A. (2013). The current state of assessment education: Aligning policy, standards, and teacher education curriculum. *Journal of Teacher Education, 64*(4), 356-372. doi: 10.1177/0022487113488144

DeLuca, C., Chavez, T & Cao, C. (2013). Establishing a foundation for valid teacher judgement on student learning: The role of pre-service assessment education. *Assessment in Education: Principles, Policy & Practice, 20*(1), 107-126. doi: 10.1080/0969594X.2010.516643

Deno, S. L. (1985). Curriculum-based measurement: the emerging alternative. *Exceptional Children, 52*(3), 219-232.

Foegen, A., Espin, C. A., Allinder, R., & Markell, M. (2001). Translating research to practice: Preservice teachers' beliefs in curriculum-based measurement. *Journal of Special Education, 34*, 226-236.

Giannakaki, M. S., Hobson, A. J., & Marderez, A. (2011). Student teachers' perceptions of the

    effectiveness of their initial preparation. *European Journal of Education, 46*(4), 456-473.

    doi: 10.1111/j.1465-3435.2011.01493.x

Good, R. H. & Kaminski, R. A. (Eds.) (2002). *Dynamic Indicators of Basic Early Literacy Skills*

    (6th ed.). Eugene, OR: Institute for the Development of Educational Achievement.

    Retrieved from hppt://dibels.uoregon.edu

Holmes Group (1986). *Tomorrow's teachers: A Report of the Holmes Group*. East Lansing, MI:

    Holmes Group

Ishler, R. E., Edens, K. M., & Berry, B. W. (1996). Elementary education. In J. Sikula (Ed.),

    Handbook of research on teacher education (2nd ed., pp. 348-377). New York, NY:

    MacMillan.

Johns, J. L. (2005). Fluency norms for students in grades one through eight. *Illinois Reading*

    Council Journal, 33(4), 3–8.

Kauffman, J. M. (1999). Commentary: Today's special education and its messages for

    tomorrow. *The Journal of Special Education*, *32*(4), 244-254.

Kavale, K. A., & Forness, S. R. (2000). History, rhetoric, and reality: Analysis of the inclusion

    debate. *Remedial and Special Education, 21*(5) 279-29. doi:

    10.1177/074193250002100505

Kena, G., Hussar W., McFarland J., de Brey C., Musu-Gillette, L., Wang, X., Zhang, J.,

    Rathbun, A., Wilkinson-Flicker, S., Diliberti, M., Barmer, A., Bullock Mann, F., &

    Dunlop Velez, E. (2016). *The Condition of Education 2016* (NCES 2016-144). U.S.

    Department of Education, National Center for Education Statistics. Washington, DC.

    Retrieved from http://nces.ed.gov/pubsearch.

Labaree, D. F. (1996). The trouble with Ed schools. *The Journal of Educational Foundations*, *10*(3), 27-45.

LaMaster, K. J. (2001). Enhancing preservice teachers field experiences through the addition of a service-learning component. *The Journal of Special Education, 24*, 27-33.

Lucas, C. J. (1997). *Teacher education in America: Reform agendas for the twenty-first century.* New York, NY: St. Martin's Press

Mertler, C. A. (2003, October). *Preservice versus in-service teachers' assessment literacy: Does classroom experience make a difference*? Paper presented at the meeting of the Mid-Western Educational Research Association, Columbus, OH.

Mertler, C.A. (2004). Secondary teachers' assessment literacy: Does classroom experience make a difference? *American Secondary Education, 33*, 49–64.

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

Popham, W. J. (2004). Why assessment illiteracy is professional suicide. *Educational Leadership 62*(1), 82–83.

Popham, W. J. (2008). *Classroom assessment: What teachers need to know* (5th ed.). New York, NY: Pearson/Allyn & Bacon

Popham, W. J. (2009). Assessment literacy for teachers: Faddish or fundamental? *Theory into Practice, 48*(1), 4-11. doi: 10.1080/00405840802577536

Prasse, D. P., Breunlin, R. J., Giroux, D., Hunt, J., Morrison, D., & Thier, K. (2012). Embedding Multi-Tiered System of Supports/Response to Intervention into teacher preparation. *Learning Disabilities -- A Contemporary Journal, 10*(2), 75-93.

Prater, M. A. & Sileo, T. W. (2002). School-University partnerships in special education field

    experiences. *Remedial and Special Education, 23*(6), 325-334.

Reeves, T. D. & Honig, S. L. (2015). A classroom data literacy intervention or pre-service

    teachers. *Teaching and Teacher Education, 50,* 90-101. doi: 10.1016/j.tate.2015.05.007

Reschly, D. J., & Wood-Garnett, S. (2009). *Teacher preparation and response to intervention at*

    middle and high schools. Washington, DC: Learning Point Associates, National

    Comprehensive Center for Teacher Quality. Retrieved from: http://www.tqsource.

    org/publications/September2009Brief.pdf

Ronfeldt, M. (2012). Where should student teachers learn to teach? Effects of field placement

    school characteristics on teacher retention and effectiveness. *Educational Evaluation and*

    Policy Analysis, 34, 3-26. doi: 10.3102/0162373711420865

Ronfeldt, M. & Reininger, M. (2012). More or better student teaching? *Teaching and Teacher*

    Education, 28, 1091-1106. doi: 10.1016/j.tate.2012.06.003

Shinn, M. M., & Shinn, M. R. (2002). *AIMSweb training workbook: Administration and scoring*

    of reading curriculum-based measurement (R-CBM) for use in general outcome

    measurement. Bloomington, MN: Pearson, Inc.

Singer, J.D. & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and*

    event occurrences. New York, NY: Oxford University Press.

Stecker, P. M., Fuchs, L. S., & Fuchs, D. (2005). Using curriculum-based measurement to

    improve student achievement: Review of research. *Psychology in the Schools, 42*(8), 795-

    819. doi: 10.1002/pits.20113

Stiggens, R. (1999). Evaluating classroom assessment training in teacher education programs. *Educational Measurement: Issues and Practice, 18*(1), 23-27. doi: 10.1111/j.1745-3992.1999.tb00004.x

Stiggens, R. (2004). New assessment beliefs for a new school mission. *Phi Delta Kappan, 86*(1), 22-27.

Stobaugh, R. R., Tassell, J. L & Norman, A. D. (2010). Improving preservice teacher preparation through the Teacher Work Sample: Exploring assessment and analysis of student learning. *Action in Teacher Education, 32*(1), 39-53.

Vander Meer, C. D., Lentz, F. E., & Stollar, S. (2005). *The relationship between oral reading fluency and Ohio proficiency testing in reading* (Tech. Rep.). Eugene: University of Oregon.

Volante, L., & Fazio, X. (2007). Exploring teacher candidates' assessment literacy: Implications for teacher education reform and professional development. *Canadian Journal of Education, 30*(3), 749-770. doi: 10.2370/20466661

Wayman, J. C. & Jimerson, J. B. (2014). Teacher needs for data-related professional learning. *Studies in Educational Evaluation, 42*, 25-34. doi: 10.1016/j.stueduc.2013.11.001

Wilson, J. (2005). *The relationship of Dynamic Indicators of Basic Early Literacy Skills (DIBELS) oral reading fluency to performance on Arizona Instrument to Measure Standards (AIMS)*. Tempe, AZ: Tempe School District No. 3.

Woltman, H. Feldstain, A. MacKay, J. C. & Rocchi, M. (2012). An introduction to hierarchical linear modeling. *Tutorials in Quantitative Methods for Psychology, 8*(1), 52-69.

Beginning with Co-Teaching to Improve K–5 Student Achievement

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School districts and teachers in the United States are becoming increasingly reluctant to accept pre-service teachers (Goldhaber, Liddle, & Theobald, 2012). This reluctance is not surprising for several reasons. First, state and national trends in educational policies seem to be based on the assumption that there is no beneficial connection between most teacher preparation institutions and improved student learning (Greenberg, McKee, & Walsh, 2013). Second, these policy assumptions have led to legislation that directly affects the decisions of cooperating teachers (CTs) and school district leaders to accept pre-service teachers. Third, this legislation expects teachers to achieve mandated mastery for all students while teaching to an increasingly diverse population of students. Finally, teachers must often cope with a legislated emphasis on standardized testing and value-added models in evaluation systems, which attempt to identify the causal effects of individual teachers on student learning (Koppich & Esch, 2012). With individual professional evaluation on the line for the CTs, is it any wonder that teachers and school districts are reluctant to take a risk by opening their classrooms to teachers in training?

Background

Although recent research suggests a link between teacher preparation and increased student academic achievement in the classroom (Bacharach, Heck, & Dahlberg, 2010), other research suggests that this link is not well established (Darling-Hammond, Holtzman, Gatlin, & Heilig, 2005; Goodnough, Osmond, Dibbon, Glassman, & Stevens, 2009). This ambiguity about

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research connecting teacher preparation to student learning in the classroom means that teacher educators must take a more active role in demonstrating the value of teacher preparation in improving student learning in the K–5 classroom (Sleeter, 2014).

This need to demonstrate the value of teacher preparation comes at a time when school districts are finding that substantive change is required to close achievement gaps in learning based on the race and socio-economic status of students. Teachers, principals, and district leaders must not only adopt these new approaches, but sustain ongoing reflection to deepen their understanding as they master those approaches (Calderhead, 1990; Cochran-Smith, 1991). The "clinical" aspect of teacher preparation, pre-service teaching, can play a role in this deepening of understanding to the extent that CTs collaborate with their pre-service teachers in the design and implementation of the new approaches. But, as suggested by Bacharach et al. (2010), teacher educators must move beyond the traditional pre-service teaching model to do so. The significance of guidance and mentorship for pre-service teachers (Korthagen, Loughran, & Russell, 2006) indicates the need for a pre-service teaching model that facilitates integration between knowing about teaching and actually teaching (Bashan & Holsblat, 2012).

Thus, it would be useful to find a pre-service teaching model that can deliver a high-quality learning experience for pre-service teachers (Goodnough et al., 2009) while at the same time supporting sustainability and mastery for the CTs. Bacharach et al. (2010) suggested more than five years ago that co-teaching shows promise as this pre-service teaching model. This appears to be especially true when co-teaching is conceptualized as a form of collaboration that supports both teacher training and the professional development of current teachers (Landt, 2004; Meirinka, Imants, Meijer, & Verloop, 2010; Sawyer & Rimm-Kaufman, 2007).

Developing a Co-Teaching Model for Pre-service Teaching

Cook (2004) has suggested that co-teaching is a vehicle promising success for all students. Co-teaching occurs when two teachers agree to share responsibility and ownership for the content-based instruction of a group of students in one classroom. When co-teaching, teachers share resources and assume joint accountability, although each individual's level of participation may vary. Cook and Friend (2004) identified six types of co-teaching approaches: (a) one teach, one observe; (b) one teach, one drift; (c) parallel teaching; (d) station teaching; (e) alternative teaching; and (f) team teaching. Regardless of the approach, the development of any co-teaching model for pre-service teaching requires a reexamination of the roles of pre-service teachers, CTs, university supervisors, and school principals.

Pre-service Teachers' Role

Pre-service teachers are expected to put into practice the knowledge they have obtained from university courses. At the same time, they are expected to transform this received classroom knowledge while shifting from a student's perspective to a teacher's perspective. This transformation can be difficult, but grounding knowledge in actual classroom practice is a powerful means of fostering effective teachers (Fernandez, 2002).

Cooperating Teachers' Role

Research suggests that CTs perceive their role to be of a practical and technical nature. This often involves a focus on the daily nuances of effective classroom management (Rajuana, Beijaardb, & Verloop, 2007). It follows that nurturing CTs lead pre-service teachers into effective classroom practices (Valencia, Martin, Place, & Grossman, 2013). CTs are responsible for determining whether that experience is hierarchical or collaborative.

University Supervisors' Role

For co-teaching experiences to be successful, university supervisors have to be certain that conditions are right for co-teaching before, during, and even after pre-service teaching placements. Working with CTs and school principals, university supervisors can teach and promote norms of collaboration and collective responsibility (Levine, 2011).

School Principals' Role

University supervisors and principals must work in tandem to ensure that expectations foster co-teaching as a manifestation of collaboration. Upon concluding their seminal study of co-teaching as a pre-service experience, Roth and Tobin (2002) did not feel they were successful in bringing principals into the experience. Without this involvement, they speculated, the system itself would not change and, over time, would revert.

Need for Collaboration

Much of the current teaching workforce has had little preparation for co-teaching roles (Bashan & Holsblat, 2012). Although the potential to collaborate in all phases of teaching does exist in a co-teaching pre-service model, often the cooperative partnership process is left to chance (Davison, 2006). The development of an effective co-teaching model depends on the intentional development of a strong professional relationship between the novice and the experienced teacher. In turn, this relationship is essential to building a positive classroom learning environment in which a co-teaching pre-service model can flourish (Sileo, 2011; Smith, 2007). In addition, a positive classroom environment permits flexibility, which needs to be paramount if the needs of students, teachers, and schools are to be met (Goodnough et al., 2009).

Theoretical Framework for the Study

The idea of co-teaching, as theorized by Roth and Tobin (2002), informed our study. By definition, and as noted in the work of Roth and Tobin, viewing the pre-service teacher as the "new teacher," rather than the "student teacher" or "prospective teacher," is best suited to a co-teaching model for teacher preparation. The co-teaching model is based on the notion that pre-service teachers learn to teach by teaching rather than by studying teaching. Co-teaching that uses the concept of "new teacher" brings legitimacy to pre-service teaching, whereas traditional student teachers are often regarded as novice, or even deficient, teachers whose presence might threaten a high-quality learning environment (Roth & Tobin, 2002).

There is an additional underlying factor in this model of pre-service co-teaching. While professional growth is anticipated for the pre-service teacher, it is seldom expected in traditional models that the CTs also will experience professional development. However, if the conditions necessary for teacher learning are an integral part of the CT/pre-service teacher relationship, the veteran teachers can benefit professionally from the encounter. As co-learners, CTs, pre-service teachers, and university supervisors have the potential to collaborate in all phases of teaching.

Research Question

Our research explored the notion that a nonhierarchical co-teaching relationship between pre-service teachers and CTs leads to a more beneficial learning experience for the pre-service teacher (Kim & Danforth, 2012). Since engagement is highest when students are actively participating with a teacher (Magliaro & Borko, 1986), this study tested the following hypothesis: was there a statistically significant improvement in academic achievement between K–5 students who participated in a co-teaching research project and K–5 students who did not?

Method

The study used an explanatory mixed methods design to collect quantitative data on K–5 student achievement and qualitative data on pre-service teachers and CTs who participated in the co-teaching research project. Qualitative data were collected as the primary data source to better understand (a) the different co-teaching styles exhibited in classrooms, and (b) the engagement of elementary students when they were exposed to the co-teaching pre-service model. Quantitative data were collected as secondary data to allow us to compare student performance in years when the co-teaching pre-service teaching model was used to years when that model was not used.

Qualitative Method

A grounded theory framework structured our qualitative approach. As described by Charmaz (2009), grounded theory offered several advantages for use in our study, including explicit, sequential guidelines for conducting qualitative research. We utilized several of the stages involved in grounded theory, including interviews, note taking, memoing (i.e., journaling), and textual coding into categories.

Our research was conducted by three faculty members from the college of education at a regional university in the Midwestern United States. The study was designed as a pilot field experience program. A new co-teaching pre-service teaching model was implemented in all K–5 classrooms in two elementary schools in the same school district, which shared one principal. This elementary field experience included two semesters of practicum work. Beginning in the fall semester, the elementary pre-service teachers who participated in this study spent five mornings a week in a classroom placement while enrolled in additional university coursework. Then they continued on with a full-time classroom placement for the entire winter semester.

Participants

The researchers contacted potential participants from the pool of incoming pre-service teachers at the university. Candidates for the pilot program then self-selected by indicating their initial interest in participating. Those who wished to be considered were interviewed by the university's director of teacher education and the university supervisor. Five pre-service teachers were selected to participate in a full academic year of the co-teaching pilot.

After the cohort of pre-service teachers was identified, the principal for the two elementary schools selected eight CTs who indicated interest in participating in this co-teaching model. These eight CTs each participated in at least one semester of the co-teaching pilot. A "meet and greet" took place where the pre-service teachers and CTs engaged in conversations directed by the university supervisor. After this meeting, the CTs and pre-service teachers submitted an ordered list of pairing preferences. The principal and the university supervisor then met and made the final pairings based on these expressed preferences and their own professional insights.

Co-Teaching Process

After pairings were established for the fall semester half-day practicum, the university supervisor began monthly professional development meetings within the school buildings; these meetings highlighted co-teaching literature, best practices, and specific co-teaching models. Cook and Friend's (2004) six co-teaching models were introduced, and the CTs and pre-service teachers were given the freedom to determine which model would work best for any given lesson. Discussions took place in which participants sorted out the best co-teaching models for each pair. The school year opened with the pre-service teachers in active co-teaching roles from the first day.

Throughout the semester, the university supervisor visited every three weeks to observe the pre-service teachers' lessons using a co-teaching model. These observations were followed by individual three-way meetings between the university supervisor, the CTs, and the pre-service teachers, where the discussion focused on what worked well in that particular model and what could be improved. Upon completion of the fall semester half-day practicum, the building principal sought feedback from the university supervisor, pre-service teachers, and CTs to determine the best pairings for the full-day pre-service teaching practicum semester that was to follow. Pre-service teachers who were in lower elementary (grades K–2) the first semester were assigned an upper elementary (grades 3–5) placement for the next semester, and vice versa. The same process and collaboration then took place during the winter semester.

Data Collection

Primary qualitative data were collected via weekly journal reflections from the pre-service teachers and written observation transcripts from the university supervisor. The CTs' comments were collected by the university supervisor. All of the weekly pre-service teacher reflections included specific prompts that evaluated their co-teaching performance with the CTs and how co-teaching models affected interactions with the elementary students. These prompts included (a) procedures in the classroom, (b) interaction skills, (c) building classroom community, (d) managing difficult situations, (e) monitoring behaviors, (f) balancing supportive rapport, and (g) developmental autonomy.

Note Taking and Memoing

One of the early stages in grounded theory is note taking. In this context, note taking meant the required written weekly reflections of the pre-service teachers and the required observation notes from the university supervisor. In our study, these weekly reflections were

imported into NVivo 10 (QSR International, 2012) and then subdivided into information by specific pre-service teachers and weekly reflection themes. The collected textual documents were analyzed to identify potential trends and commonalities from the different textual data sources.

Another stage in the grounded theory framework is memoing. In our study, this meant the brief, nonrequired, written observations of the university supervisor about the classrooms using a co-teaching model. Memoing was included in the data collection to add to the credibility of the qualitative research and provide a record of meanings derived from the data (Groenewald, 2008).

Coding

Coding was another stage in grounded theory that we employed. The first phase of coding the qualitative data involved open coding. This divided significant texts into core categories, with each category containing a set of sentences and phrases mentioned frequently (Charmaz, 2009). Our open coding process identified the following seven broad categories:

- *Positive Teaching Experience:* descriptions of productive pre-service experiences

- *Negative Teaching Experience:* descriptions of counterproductive experiences

- *Elementary Student Emphasis:* descriptions of teaching, learning, and engagement focused on K–5 students

- *Pre-service Emphasis:* descriptions of teaching, learning, and engagement focused on the pre-service teacher

- *Cooperating Teacher Emphasis:* descriptions of the CTs' specific efforts

- *Co-teaching Planning:* descriptions of efforts and coordination by pre-service teachers and CTs to design and evaluate co-teaching methods

- *Co-teaching Facilitated:* descriptions of narratives, examples, and instances where co-teaching methods were facilitated in the classroom

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Our second phase of coding was axial coding, during which we identified connections among these categories. Conditions, contexts, interactional strategies, and consequences in the textual data were identified and highlighted to differentiate them from extraneous text (Charmaz, 2009). The seven core categories identified in the open coding phase were used as specific highlighters for the axial coding process, organizing the data so it could be further interpreted in a subsequent selective coding process.

Sorting

The final phase involved sorting the organized data to construct a comprehensive, cohesive description (Groenewald, 2008). We identified coded similarities in the data across subdivisions—such as different pre-service teachers' weekly classroom reflections and observation transcripts—with specific coding markers. This comparative analysis made similarities in the data visible and linked the experiences of the pre-service teachers.

<center>**Qualitative Data Results**</center>

The qualitative data analysis ultimately led to the identification of seven specific categories for the outcomes reported by pre-service teachers and CTs in response to the introduction of the co-teaching curricula. These are described below.

Partnership, not Mentorship

While mentoring components were in place for pre-service teacher development, the comments gathered suggested that pre-service teachers and CTs did not rely exclusively on a hierarchical approach. Instead, they developed a partnership when working with lesson planning and curriculum design. This approach defined the climate of the classroom early on as a practicum experience where pre-service students could actually teach. One pre-service teacher

noted, "Although I was learning during this co-teaching experience, it felt like . . . the students saw us as equals."

Maximized Practicum Experience

Under this co-teaching model, pre-service teachers were not simply passively shadowing their CTs; they were actively integrated in co-teaching and classroom management from the beginning. This gave pre-service teachers the opportunity to put their academic learning outcomes into practice in a full teaching role. In addition, their active role in the classroom allowed K–5 students to quickly perceive them as a teaching authority figure, rather than simply some type of helper in the classroom. This active role was illustrated when a pre-service teacher noted, "I didn't realize what a significant role I would play. . . . This co-teaching model really helps put the education theory I'm learning to practice."

Increased Classroom Management

Because there were two adults in the classroom during this pilot program, the classroom management process became more efficient. CTs could spend less time managing minor problems and troubleshooting issues and more time teaching students. This also applied to pre-service teachers if they were the lead teachers for specific lessons. A pre-service teacher said, "There was so much extra time to solve classroom issues because two of us teachers were in the classroom organizing student learning."

Reciprocal Development

Pre-service teachers and CTs actively learned from one another throughout the co-teaching process, specifically regarding teacher education practices. CTs were able to offer pre-service teachers hands-on advice due to their experiences as established teachers. In turn, pre-service teachers were able to offer innovative teaching methods due to their familiarity with

current teacher education literature and best practice strategies obtained from university faculty and professional development opportunities. One pre-service teacher said, "My cooperating teacher wanted me to help build the curriculum based on new teacher education strategies, and I made sure to watch closely how she taught based on the curriculum."

Strengthened Rapport with K–5 Students

Data indicated that all pre-service teachers could more easily take an active role in the classroom by early in the second semester. In addition, the K–5 students built stronger bonds with the pre-service teachers because they were not perceived as strangers. This finding was illustrated by one pre-service teacher who said, "I knew how to work with most of my students already. . . . This allowed me to help students how I knew they needed to be helped."

Increased Attention to K–5 Students

With two adults teaching in the classroom, there was more time to work with students individually while not halting lessons being taught to the whole group. This allowed the flow of the classroom to continue while simultaneously giving the students appropriate assistance. One pre-service teacher's comment illustrates this increased attention to students: "Because of co-teaching structure instead of just teacher assisting, there was always someone actively watching over the class and could help students when needed."

Differentiated Co-Teaching Model

The pre-service teachers and CTs in our study demonstrated a co-teaching model that ended up differing slightly from the co-teaching models described by Cook and Friend (2004). In our model, the beginning and end of the lessons were often facilitated by one teacher (either the pre-service teacher or the CT), while the middle was facilitated by the other.

Quantitative Method

Quantitative analysis added another layer of insight to our findings by comparing the proportion of students across three categories of need for intervention. The two elementary schools that we studied use a progress monitoring system for their students based on an initial diagnostic reading assessment. Utilizing the data gathered from this assessment, the school district has a tiered intervention system with three categories for the classroom: Benchmark (students who function in the classroom with minimal assistance), Strategic (students who require some in-class assistance), and Intensive (students who require extensive assistance). We used a Z-test to find the significance of difference (at the .05 level of significance) in the K–5 populations' means in the Intensive, Strategic, and Benchmark progress monitoring categories.

Quantitative Data Results

Based on results of the Z-test, we are 95% confident that student achievement increased in the two years with the co-teaching pre-service model for more than half of the grade levels examined—as measured by the proportion of students in each category of intervention. For example, in 2011, 72% of the grade K students were in the Benchmark category with no co-teaching; the proportion increased to 91% with co-teaching in 2014. Also in 2011, 11% of the grade K students were in the Intensive category with no co-teaching; this proportion decreased to zero with co-teaching in 2014.

The mean proportions of students in various categories of intervention are reported in the following tables as percentages, rounded to the nearest whole number. In reviewing the three categories of intervention presented in these tables, it should be noted that a proportional change in any category resulted in a proportional change in one or both of the other categories because the total for all categories was 100% of the students involved.

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As Table 1 shows, when the co-teaching pre-service teaching model was used, the mean proportion of students in the Benchmark category (i.e., those needing no intervention) increased significantly in Kindergarten and somewhat in the first, fourth, and fifth grades. For the second and third grades, the mean proportion of students in this category declined somewhat.

When the co-teaching model was used, the mean proportion of students in the Strategic category (i.e., those needing some classroom assistance) decreased moderately in Kindergarten and fifth grade, and slightly in fourth grade (Table 2). The mean proportion of students in this category was essentially unchanged for the first grade, increasing moderately for the second and third grades.

Finally, when the co-teaching model was used, the mean proportion of students in the Intensive category (i.e., those requiring extensive assistance) decreased significantly in Kindergarten and more modestly in the first, second, third, and fourth grades (Table 3). Grade five was the exception, reporting an increase in the mean proportion in the Intensive category.

Although the quantitative analysis points to the possibility of a causal relationship between pre-service co-teaching and student academic improvement, we cannot conclude with certainty that this relationship exists. There were other programs implemented in the district at the time of our intervention. However, the qualitative data findings suggest that the co-teaching pre-service model led to the presence of a teaching partnership; increased classroom management efficiency; promoted reciprocal development between the pre-service teachers and the CTs; and strengthened rapport and increased the instructional attention provided to students.

Discussion

Prior to this study, the university's director of teacher education intuitively believed that K–5 student achievement would increase when two teachers worked collaboratively within the

classroom. However, data were needed to document this belief. Our analysis of the quantitative and qualitative data gathered from this pilot project offers at least some confirmation.

Two particular highlights emerged from the qualitative data. First, more time was potentially available for personalized instruction, as characterized by increased rapport with students and attention to individual student needs. Because the pre-service teachers were involved in actual teaching from the beginning of the term, classroom management procedures were more quickly established and reinforced. With this focus on actual teaching throughout, the pre-service teachers began to be viewed as "real" teachers rather than as "practice" teachers and fewer interruptions to instruction were needed to address issues of classroom management. Second, the qualitative data also seemed to correlate with the characteristics related to effective instruction described in the literature review. For example, planning partnerships emerged between the pre-service teachers and the CTs, and reciprocity was reported. This allowed the pre-service teachers to benefit from the theoretical background and practical experiences of the CTs, while the CTs were able to find value in the ideas of the pre-service teachers.

The highlights revealed by the qualitative and quantitative data seemed to point to improved student achievement in the pilot program. Student achievement increased for each grade, as reflected by the need for reduced intervention in at least one of the intervention categories in every grade. Kindergarten showed the most dramatic increase, with double-digit improvement in the proportion of students in the Benchmark category and a double-digit decrease in the Intensive category. When probing the reasons for this marked improvement, the elementary school principal responded that the developmental dependence traits of young Kindergarten students maximized the benefit of having a second adult in the room. For first through fourth grades, student achievement was indicated by a modest decrease in the proportion

of students in the Intensive category for each grade, while fifth grade showed a double-digit decrease in the proportion of students in the Strategic category.

Conclusion

Additional research and further testing of co-teaching models for pre-service teaching will be necessary to confirm their influence on K–5 student achievement. However, this study suggests that at least this one co-teaching pre-service model offered a win-win-win-win approach for K–5 students, CTs, pre-service teachers, and universities and school districts.

Acknowledgments

References

Bacharach, N., Heck, T., & Dahlberg, K. (2010). Changing the face of student teaching through co-teaching. *Action in Teacher Education*, *32*(1),12–13.

Bashan, B., & Holsblat, R. (2012). Co-teaching through modeling processes: Professional development of students and instructors in a teacher training program. *Mentoring & Tutoring: Partnership in Learning*, *20*(2), 207–226.

Calderhead, J. (1990). Reviewed work [Initial teacher training and the role of the school by V. J. Furlong, P. H. Hirst, K. Pocklington, S. Miles]. *British Journal of Educational Studies*, *38*(1), 84–86.

Charmaz, K. (2009). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: SAGE.

Cochran-Smith, M. (1991). Learning to teach against the grain. *Harvard Educational Review*, *61*(3), 279–310.

Cook, L. (2004, April). *Co-teaching: Principles, practices, and pragmatics*. Paper presented at the New Mexico Public Education Department Quarterly Special Education Meeting. Retrieved from ERIC database (ED486454).

Darling-Hammond, L., Holtzman, D. J., Gatlin, S. J., & Heilig, J. V. (2005). Does teacher preparation matter? Evidence about teacher certification, Teach for America, and teacher effectiveness. *Education Policy Analysis Archives*, *13*(42), 1–39.

Davison, C. (2006). Collaboration between ESL and content teachers: How do we know when we are doing it right? *International Journal of Bilingual Education and Bilingualism*, *9*(4), 454–475.

Fernandez, C. (2002). Learning from Japanese approaches to professional development: The case of lesson study. *Journal of Teacher Education*, *53*(5), 393–405.

Goldhaber, D., Liddle, S., & Theobald, R. (2012). The gateway to the profession: Assessing teacher preparation programs based on student achievement. Working paper retrieved from ERIC database (ED537142).

Goodnough, K., Osmond, P., Dibbon, D., Glassman, M., & Stevens, K. (2009). Exploring a triad model of student teaching: Pre-service teacher and cooperating teacher perceptions teaching and teacher education. *An International Journal of Research and Studies*, *25*(2), 285–296.

Greenberg, J., McKee, A., & Walsh, K. (2013). Teacher prep review: A review of the nation's teacher preparation programs. Retrieved from ERIC database (ED543515).

Groenewald, T. (2008). Memos and memoing. In L. Given (Ed.), *The SAGE encyclopedia of qualitative research methods* (pp. 506–507). Thousand Oaks, CA: SAGE.

Kim, T., & Danforth S. (2012). Non-authoritative approach to supervision of student teachers: Cooperating teachers' conceptual metaphors. *Journal of Education for Teaching: International research and pedagogy*, *38*(1), 67–82.

Koppich, J. E., & Esch, C. (2012). Grabbing the brass ring: Who shapes teacher policy? *Educational Policy, 26*, 79–95.

Korthagen, F., Loughran, J., & Russell, T. (2006). Developing fundamental principles for teacher education programs and practices. *Teaching and Teacher Education*, *22*, 1020–1041.

Landt, S. M. (2004). Professional development of middle and secondary level educators in the role of cooperating teacher. *Action in Teacher Education*, *26*(1), 74–84.

Levine, T. (2011). Features and strategies of supervisor professional community as a means of improving the supervision of pre-service teachers. *Teaching and Teacher Education, 27*, 930–941.

Magliaro, S., & Borko, H. (1986). A naturalistic investigation of experienced teachers' and student teachers' instructional practice. *Teaching and Teacher Education, 2*(2), 127–137.

Meirinka, J. A., Imants, J., Meijer, P. C., & Verloop, N. (2010). Teacher learning and collaboration in innovative teams. *Cambridge Journal of Education*, *40*(2), 161–181.

QSR International. (2012). NVivo qualitative data analysis software; QSR International Pty Ltd. Version 10.

Rajuana, M., Beijaardb, D., & Verloop, N. (2007). The role of the cooperating teacher: Bridging the gap between the expectations of cooperating teachers and student teachers. *Mentoring & Tutoring, 15*(3), 223–242.

Roth, W., & Tobin, K. (2002). *At the elbow of another: Learning to teach by co-teaching*. New York, NY: Peter Lang.

Sawyer, L. B., & Rimm-Kaufman, S. (2007). Teacher collaboration in the context of the responsive classroom approach. *Teachers and Teaching: Theory and Practice, 13*(3), 211–245.

Sileo, J. M. (2011). Co-teaching: Getting to know your partner. *Teaching Exceptional Children*, *43*(5), 32–38.

Sleeter, C. (2014). Toward teacher education research that informs policy. *Educational Researcher, 43*, 146–153.

Smith, E. R. (2007). Negotiating power and pedagogy in student teaching: Expanding and shifting roles in expert–novice discourse. *Mentoring & Tutoring: Partnership in Learning*, *15*(1), 87–106.

Valencia S., Martin, S., Place, N., & Grossman, P. (2013). Complex interactions in student teaching. *Journal of Teacher Education*, *60*(3), 304–322.

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Table 1
Mean Proportion of Students in Benchmark Category, by Grade

Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade
26%–27%	2%–4%	4%–7%	2%–4%	1%–4%	5%–7%
Increase	Increase	Decrease	Decrease	Increase	Increase

Table 2
Mean Proportion of Students in Strategic Category, by Grade

Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade
7–9%	-1% to +1%	8%–9%	7%–8%	.04%–2%	10%–12%
Decrease	Unchanged	Increase	Increase	Decrease	Decrease

Table 3
Mean Proportion of Students in Intensive Category, by Grade

Kindergarten	First Grade	Second Grade	Third Grade	Fourth Grade	Fifth Grade
17%–19%	1%–4%	2%–4%	3%–6%	1%–2%	3%–4%
Decrease	Decrease	Decrease	Decrease	Decrease	Increase

Extending Student Teaching beyond the Fifteen Weeks: Benefits and Drawbacks for K-4

Teacher Candidates, Mentor Teachers, and Elementary Students

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Abstract

Teacher candidates (education majors) enrolled in a K-4 teacher certification program participated in an extended student teaching year-long experience. Candidates spent a minimum of nine hours each week during the fall semester and the entire fifteen weeks of the spring semester in the same classroom with a cooperating teacher (mentor teacher). Survey results suggest that candidates and their mentors experienced positive results with minimal drawbacks. Results from both candidates and mentors suggest continuation and expansion of the extended student teaching for future teacher candidates. The overall positive results support recommendations for implementation at other universities.

Teacher education programs across the United States have increasingly responded to the need for a more clinical approach to educator preparation. Including high quality field experiences with effective mentor teachers allows teacher candidates (education majors) direct involvement with classrooms prior their first teaching job (Mercer & Myers, 2014). Typically teacher education programs have a series of stages or blocks of field experiences, culminating in the final semester of a candidate's preparation, which is student teaching. (Altan & Saglamel, 2015; Spooner, Flowers, Lambert, & Agozzine, 2008). Teacher candidates are placed with experienced classroom teachers to mentor them throughout the semester-long experience (Glenn, 2006). Although most programs have a series of field experiences and a culminating student teaching experience there is little agreement on what constitutes student teaching.

> Most states require student teaching, the majority requiring somewhere between 10 and 14 weeks, but with few exceptions, such as Maryland and the state of Washington, they are silent on what this crucially important experience should look like, and how programs should be held accountable (NCATE, 2010, p. 4).

Despite traditional student teaching experiences being a semester long experience, more educator preparation programs are moving toward a year-long clinical model (Sampson, Linek, Raine, & Szabo, 2013). Each university's version of a year-long clinical experience is slightly different during the first half of the "year-long", whether it includes two full days in the elementary classroom during the first half of the year (Sampson, Linek, Raine, & Szabo, 2013) or whether the year-long is truly a full year, with participants in the field for five days a week both semesters (Oja, Graam & Andrew, 2011).

Method

Participants

Teacher candidates from a mid-size public university in the Mid Atlantic region of the United States participated in this project. They were all enrolled in a Pre K-grade 4 certification program as undergraduate education majors (known as teacher candidates). The year-long experience has been an option at this university for ten years, with an increasing number of teacher candidates and classroom teachers (also known as mentor teachers or cooperating teachers) participating each year.

Year-long Experience Description

Teacher candidates attended an informational session with the Coordinator of Field Experiences if they were interested in participating in the K-4 year-long experience. After the information session, they were sent an email with an application attached. Upon receiving the returned the application electronically, it is reviewed by the Coordinator of Field Experiences to determine eligibility. Eligible candidates have a 3.2 GPA and availability to spend additional time in the field placement the semester before student teaching. In addition, candidates must explain how they would be involved in school activities during the year of their placement.

Candidates indicated first, second, and third choices out of a list of five possible different school district locations for their year-long placement. Normally, candidates do not have a choice in their placement location. However, the year-long candidates at our university have the opportunity to rank their top three and most candidates in the year-long program received their first choice location. Candidates who met the eligibility requirements enrolled in a specific section of a six credit reading practicum course. Each section was matched with a partnering school district. Once enrolled, the Coordinator of Field Experiences facilitated the interview process. Each of the five school partners structured the interviews differently. The chart below provides a comparison of the various approaches to interviewing teacher candidates (Table 1).

The interview allowed the administrator an opportunity to meet the candidates before accepting them as student teachers. The interview also provided the teachers and/or principal with input into candidates' personalities to assist in best match. For example, in any given school, if there were four candidates and four mentor teachers interested in hosting candidates, the principal or other administrator endeavor to match pairs based on interests, personalities, and/or strengths/weaknesses.

Table 1: School district interviews of teacher candidates

District	Who Interviewed?	Decision
District #1	Central Office HR Director interviewed candidates individually	HR Director made matches of candidates with interested teachers
District #2	Two elementary building principals together interviewed candidates one at a time	Principals assigned candidates to particular teachers.
District #3	All interested teachers joined all interested candidates as well as university faculty and building administrator for a large group conversation	Teachers submitted list of top 3 choices to building administrator
District #4	Building principal interviewed all candidates at once, with interested teachers present.	Teachers submitted list to building principal
District #5	Building principal and HR Director interviewed candidates individually with teachers present.	Principal assigned matches in consultation with teachers.

Instruments

Teacher candidates and mentor teachers were each sent a link to an electronic survey at the conclusion of the year-long experience in 2013, 2014, and 2015. (see Appendices 1 and 2).

Results

Benefits

Twenty-eight teacher candidates (out of eighty) responded to the electronic survey at the conclusion of the year-long experience, across three years. The first question asked them to

identify the most beneficial aspect of the year-long program. Candidates almost unanimously responded with something related to their K-4 students. Twenty-seven of twenty-eight (96%) candidates described in detail how working with the same students for an entire school year was the best part of the experience. The one remaining participant found the whole teaching experience most beneficial.

The second question continued to focus on benefits, where the participants were asked to list any other benefits besides their top choice that was already given in question one. Twenty-six candidates responded to this question and most indicated more than one benefit. Nearly one-third of the candidates responded that working with other teachers and staff in the building (8 responses) and being part of the school community (8 responses) were also benefits of participation in the year-long experience. Nineteen percent of the participants (five responses) listed that they had more teaching time, they were not stressed about the second semester (student teaching) since they knew their cooperating teacher and the students, they had a strong relationship with their cooperating teacher, and they benefitted from attending all of the annual events occurring in an elementary school (Back-to-School night, fall and spring parent conferences, etc.). Four candidates (15%) mentioned that they learned how to differentiate to meet the unique needs of each student and four also mentioned that they benefitted in the area of classroom management. Three candidates (12%) mentioned the benefit of experiencing student growth across the entire year. Two candidates (8%) felt more confident in their teaching and two felt a benefit was spending an entire year with the curriculum, while one candidate mentioned being viewed as a real teacher, and one candidate found a benefit in listing this experience on his or her resume.

Classroom teachers who mentored the candidates also responded to a survey (see Appendix 2). Thirty-seven K-4 teachers out of eighty responded to the electronic survey across three years (2014, 2015 & 2016). Classroom teachers were asked what they thought was most beneficial about having their teacher candidate for the year. As with teacher candidates, the most common response related back to the elementary students. Seventeen (46%) teachers responded that the relationship between the teacher candidate and the students, or the student growth that the candidate witnessed was the most beneficial. Their second most commonly chosen response to question one dealt with their teacher candidate. Eleven of the mentor teachers (30%)suggested that their candidate had a richer experience and was more prepared to be a teacher as a result of experiencing the entire year. Nine teachers (24%) responded that having a second teacher in the room to collaborate or co-teach with was the most beneficial aspect of having a candidate all year. Question two asked the teachers to list other benefits, aside from the most important benefit, and the answers varied widely. The candidate got to know the students better (29%), they had a smoother transition to student teaching since they knew the routines better (23%), they could co-teach and candidates could teach more (14%), and the teachers felt that the candidates took more ownership in the class' progress (14%).

Disadvantages

Teacher candidates were asked to share the disadvantages of the year-long experience. Twenty-two participants responded to this question. Eight respondents (36%) indicated that they felt there were no disadvantages and eight respondents indicated that a disadvantage was that they did not spend time in other grade levels or with other teachers. Classroom teachers had similar responses. Nineteen teachers (54%) shared that there were no disadvantages. Eight teachers of thirty-five (23%) responded that the disadvantage was that candidates only

experienced one grade level and teacher for the entire year. Five teachers (14%) noted that it could be a disadvantage if the pair were not compatible. One teacher remarked that mentoring a weak student teacher would be a disadvantage (3%). Another teacher noted that she/he was ready to take the class back after sharing for the year. Finally, one teacher explained that a disadvantage was that a mentor teacher needs endurance and patience to mentor a teacher candidate for an entire year.

Recommendations for the Future

The teacher candidates were asked if they would recommend the year-long experience to other teacher candidates. One person did not respond. 100% of the candidates who responded said yes (27/27). The classroom teacher response was similar. Thirty-six teachers responded to this question. Twenty-nine (81%) indicated that they would host a year-long candidate in the future. Of the seven who responded that they would not, three commented that they are retiring, one commented that she already received a spring-to-fall year-long candidate, one commented that she would be on maternity leave and could not host, and one teacher shared that she would like to participate again but just not next year. Only one person who responded that he or she would not host again did not give a reason.

The classroom teachers were asked how the year-long differs from the traditional student teaching experience. Most of the teachers had hosted a traditional student teacher before hosting a year-long candidate. Twenty-seven teachers responded to this question. Grouping their responses, the most common theme was planning/teaching/managing (56%). A close second was the theme of working relationships. Whether relationship building between the classroom teacher and teacher candidate or between the teacher candidate and elementary students, 30% of teachers who responded felt that was a major difference between traditional student teachers and year-

long student teachers. The remaining themes were teacher candidate professional growth (7%) and not applicable (7%).

Discussion

There are several implications from this project. First, participants noted that their elementary students benefitted the most from the program. Second, the biggest drawback is the lack of a different grade level or teacher to experience for that extended time. Third, participants would recommend participation to others, thereby endorsing the continuation and expansion of the program.

Elementary Students

The most beneficial aspect of the year-long program for the candidates was the opportunity to focus on the elementary students. All but one teacher candidate responded with an answer related to their K-4 students as the biggest benefit to their participation in the year-long experience. Their focus on their students is impressive. Rather than career focused responses related to their future employment or their own learning, they focused on the students. Later in the survey, when they were asked to list other benefits, a wide array of responses were given. One might be surprised to see low numbers on the responses related to student growth and differentiating for students' needs, yet the largest responses were related to their students. Their responses on this second question focused more on the wide array of other benefits.

Similarly, classroom teachers were focused on the benefits of the elementary students. Almost half of the teacher (46%) shared that the candidate's relationship with the students was the most beneficial part of the experience. Their focus was on their K-4 students as this teacher stated:

> I love this program! There are proven results in classroom data. My
> students made a lot more progress this year than they would have if I had

been the only teacher in the classroom. I had a very academically weak group of students this year, and they had shown significant gains. I am impressed by the way this program benefits our students (T165).

Their other benefits included many different areas, some that were similar to their candidates' list (knowing routines, cyclical activities of the school year, more teaching time), and some that the candidates did not consider (how the building operates, learning the reading curriculum in-depth).

Grade Levels

Thirty-six percent of the teacher candidates who responded shared that a disadvantage was that they spent a full year with only one teacher and one grade level. Had they been traditional student teachers, they would have had one reading practicum placement and a different student teaching placement. They may or may not have had the same grade level, but they would have had a different teacher. The participating teachers shared similar responses. Most did not state a disadvantage, but those who did, shared that the candidates had only experienced one teacher and grade level for both semesters. This is an important consideration as we move forward with our plans for expanding this program in the future, and for other universities who plan to replicate our experience. One solution is to require more than just the current requirement of four observations of other grade levels. An easy solution is to require year-long candidates to spend at least two full days in another grade level, or even one full week with another teacher. Since many of the candidates indicated that they developed relationships with many other teachers in the building, this would not be a difficult solution to implement.

Most teachers and all teacher candidates recommended that others participate in this experience. It was helpful to know that teacher candidates found this experience valuable. Even more interesting is that classroom teachers, many of whom had hosted traditional student

teachers, also indicated overwhelmingly that they would participate again. Their feedback and in particular, their comparisons with the traditional student teaching, are compelling reasons to work towards implementation for every candidate.

Limitations

This study has several important limitations. First, teacher candidates who self-selected to participate in the year-long program do not represent the typical teacher candidate. They agreed to spend an additional three hours each week in their classrooms during the first half of the year. They also agreed to involve themselves in the life of the school. The typical teacher candidate, if forced into a year-long experience may not realize the same benefits as these participants. Second, not all participants responded to the survey. Twenty-eight candidates out of eighty (35%) and thirty-seven classroom teachers out of eighty (46%) responded to the survey. Results might have been quite different had all participants shared their benefits and drawbacks, as well as feedback for improvement.

Future Research

Future directions for this line of research include following graduates into their first teaching position. The question under investigation in the next project is, "In what ways does participation in the year-long student teaching experience prepare teachers for their first teaching job?".

Conclusion

Teacher candidates, who were given the option of a year-long student teaching experience, shared many benefits and a few disadvantages to participation. Classroom teachers who volunteered to mentor them also shared a great many benefits, including the difference

between a traditional one-semester student teaching and the year-long experience. One participating mentor teacher said it best best when she said,

> The full year teacher has a different attitude about the experience. She was fully committed to the students and their growth in a way that far exceeds that of students not in a full year program. The growth I saw in my student teacher was just as phenomenal as the growth I saw in my students. There is a direct correlation to student achievement and this program this year (T158).

The year-long experience provides teacher candidates with an opportunity to help elementary students learn and grown throughout the entire year, while learning and growing as a novice teacher, guided by an experienced mentor.

References

Altan, M. Z. & Saglamel, H. (2015). Student teaching from the perspectives of cooperating

teachers and pupils. *Cogent Education, 2*(1), 1. 10.1080/2331186X.2015.1086291

Glenn, W. J. (2006). Model versus mentor: Defining the necessary qualities of the effective

cooperating teacher. *Teacher Education Quarterly, 33*(1), 85-95.

Mercer, D. & Myers, S. (2014). History and future of professional development schools in

Kansas. *Educational Considerations, 42*(1), 55-60.

Oja, S. N., Graham, S. E., & Andrew, M. D. (2011). Change in moral judgment of teaching

interns in a full-year internship. *Journal of Research in Character Education, 9*(1), 35-56.

Sampson, M.B., Linek, W. M., Raine, I. L., & Szabo, S. (2013). The influence of prior

knowledge, university coursework, and field experience on a primary preservice teachers'

use of reading comprehension strategies in a year-long field based teacher education

program. *Literacy Research and Instruction, 52*(4), 281-311.

Spooner, M., Flowers, C., Lambert, R. & Algozzine, R. (2008). Is more really better? Examining

perceived benefits of an extended student teaching experience. *The Clearing House,

81*(6), 263-9.

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Appendix 1: Teacher Candidate Survey

The survey questions for teacher candidate participants are:

1. What was most beneficial about spending two semesters in the same classroom?

2. What were some of the other advantages of the year-long program?

3. What were the disadvantages, from your perspective, of the year-long program?

4. Would you recommend this program to others?

5. Do you have any other feedback to help us improve this program?

Appendix 2: Mentor Teacher Survey

1. What was most beneficial about having your year-long candidate for the entire year?

2. What are some of the other advantages of keeping the WCU candidate for practicum and student teaching?

3. What were the disadvantages, from your perspective, of the year-long opportunity?

4. Would you be interested in participating next year?

5. How is the student teaching experience different, if at all, from when you hosted a student teacher who was not in the year-long program?

6. Do you have any other feedback to help us improve this program?

7. How would you rate your year-long student on their involvement in the school community throughout the year?

Watch and Wonder: Field Notes that Reveal Teacher Candidate Curiosities

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Abstract

When teacher candidates observe the teaching-learning process for the first time, the information gathered during their field experience can promote reflective practices and provide insight on better preparation of teacher candidates in teacher education programs. Providing the student an organized way to give an account of their observations and curiosities, candidates are held accountable for their own investigation and reflective practices. The purpose of this study is to discover what questions beginning teacher candidates ponder as they observe in the public schools during their first field experience. Interviews, questionnaires, and participant's recorded field notes and assignments provide triangulation of data. Through the use of *Watch and Wonder* field notes, teacher candidates are required to document what they see and hear in the classroom during the learning-teaching process then further extend their investigation by articulating their sense of wonder in the form of questions. By categorizing the questions candidates formulated into themes, teacher educators can more effectively provide a curriculum that connects theory to effective practices while guiding and supporting teacher candidates in developing a sense of wonder about the happenings that occur in the classroom.

Key words: classroom observation, field experience, field notes, candidate curiosities

Watch and Wonder: Field Notes that Reveal Teacher Candidate Curiosities

The type of data collection process used by candidates during their field experience in the public school classroom can enhance their understanding of the complexities of learning environments and encourage investigation. Borich (2011) contends that during classroom observations, candidates develop a professional frame from which to make sense of classroom events. Candidates are able to describe classroom events from insider perspectives and become informed observers when they gather detailed field notes to record classroom happenings and discourse (Frank & Uy, 2004). According to Frank and Uy, using systems that require candidates to rely primarily on predetermined expectations limit understanding of the learning-teaching process. However, Hammerness, et al, (2005) warn that when candidates observe effective teaching during field experiences, gleaning a thorough understanding of the complexities of the learning environment is not easily accomplished. The outcomes of fieldwork experiences are often emphasized over the process of learning during field experiences (Ward & McCotter, 2004). Young and Bender-Slack (2011) found that when candidates were expected to take field notes beyond simply documenting what was seen and heard, this process organized their observations and increased their learning about teaching. Journals that record observations are found to be beneficial for candidate development when candidates receive instruction in qualitative methods (Reynolds-Keefer, 2010).

Classroom observations have the capacity to encourage reflective practice. Field notes should not only capture what candidates see and hear but also how the data causes them to question and develop their curiosities about the learning-teaching process. Candidates are challenged to perceive the learning environment from a different lens, taking on the perspective of teacher rather than student (Borich, 2011). Collecting data in a way that requires them to

reflect on what they see and hear builds perceptual knowledge. Loughran (2006) suggests that perceptual knowledge must become a significant part of candidate development. Field notes that emphasize the perception of candidates in investigating the learning environment and develop a sense of wonder can encourage candidates to look beyond what they see and hear and promote reflective practice.

The perceptions and concerns candidates have of the learning environment must become a voice within teacher education programs. Unless teacher educators understand a baseline from where teacher candidates begin to observe the classroom environment, the old paradigm of university-based teacher education that views academic knowledge as the authoritative source of candidate development will remain (Zeichner, 2010). Productively observing the learning environment through field experiences allows candidates to comprehend the connection between theory and effective practices more successfully. If teacher educators are to facilitate candidates in making this connection, the voices of the candidates must be valued in teacher education programs. When students are presented with learning experiences that require them to discern the complexities of the learning environment rather than answer predetermined questions developed by a teacher educator, the connection from theory to practice begins first by accurately examining and recording the practices in great detail. Loughran (2006) advocates that the experiences of candidates must be at the center of learning to teach and suggests that professional learning is improved when candidates become more perceptive to the complexities, opportunities, and nuances of teaching contexts rather than merely increase more knowledge about teaching.

The purpose of this qualitative study was to investigate how teacher candidates use *Watch and Wonder* field notes in their first field experience in the public school classroom to

document questions they have regarding the classroom learning environment. Questions posed by candidates reveal their concerns and curiosities of the learning environment, as well as create the foundation for reflective practice.

Method

Participants in this qualitative study included students enrolled in an introductory education course at a small, rural university in the Southwest. The study was conducted over one academic year. The course, *Structured Observations of Teaching and Learning*, requires students to complete 40 hours of classroom field experience in the public schools. Since this is a foundational education course in the teacher education program, the course was a required for all students, with the exception of early childhood majors. Field placements were made by the director of the Field Placement Office through the partnership of the local, rural public school district. The field experience was 40 hours in length; split equally between elementary (K-6) and secondary (7-12) levels. In the fall 2014 semester, there were sixteen participants, and in the spring 2015 semester, there were seventeen participants.

During the field experience observations, students document field notes using a *Watch and Wonder* format, which was created by the instructor of the course. The field notes are a course requirement. Before students began their observation in the public school classrooms, they received direct instruction and participated in guided practice on how to create the *Watch and Wonder* field notes. Students completed their observation notes in a spiral notebook. Three video clips, featuring a variety of grade levels, were used during the guided practice session. The *Watch and Wonder* format required students to document what they see and hear happening in the classroom on the left column of the paper. Students labeled this column "Watch." Students were instructed to act like reporters and gather the facts as they perceived them happening in the

classroom. The right column of the paper was labeled "Wonder." Students documented questions regarding what they saw and heard in the classroom. Students were instructed to write questions that begin with *how*, *what*, and *why* to document their sense of wonder in correlation to what they wrote in the "Watch" column. Figures 1 and 2 provide examples of *Watch and Wonder* field notes.

Data Collection

Participants submitted their field notes as required by the course schedule. For the purpose of this study, participants electronically submitted a list of their top thirty questions from both their elementary and secondary field placements. A total of 990 were collected. Questions were copied and pasted to one document. If students were not able to send their questions electronically, a research assistant typed the questions on the cumulative document. In order to unitize the data, a continual numbering system was used to provide each question with its own number in each of the five sets. Further, to identify whether the questions were written by secondary licensure candidates, kindergarten through twelfth grade (K12) licensure candidates, or elementary/special education majors, different treatments to the font were utilized:

- Secondary licensure students' questions were left in regular font,

- Kindergarten through twelfth grade licensure students' questions were italicized, and

- Elementary/special education majors' questions were bold type.

Data Analysis

Analysis of data is a recursive process (Bogdan & Biklen, 1998). We based our analysis on naturalistic inquiry (see Lincoln and Guba, 1985) and used inductive data analysis processes (Lincoln & Guba, 1985; see also Bogdan & Biklen, 1998). Two subprocesses involved in inductive data analysis are "'unitizing' and 'categorizing'" (p. 203). Unitizing is a "process of

coding" (Lincoln & Guba, 1985, p. 203). Categorizing is a "process whereby previously unitized data are organized into categories that provide descriptive or inferential information about the context or setting from which the units were derived" (p. 203). This process is related to the constant comparative method, as defined by Glaser and Strauss (1967). Lincoln and Guba describe the method as involving "sorting units into provisional categories on the basis of 'look-alike' characteristics, which, in the spirit of the naturalistic paradigm, may initially be only tacitly understood" (p. 203). Units are placed into categories, under which a rule can be ascribed. This is different than deductive inquiries where the data are defined by categories that exist before data is collected.

Establishing interrater reliability was essential to the data analysis process. To do this, researchers coded a data set from the spring 2014 semester. All three researchers met and read through the questions together, coding each question. As codes were developed, they became more refined and categories emerged. A second set of questions was coded by the research team to hone the interrater reliability. After the researchers analyzed the second set of data, the categories were confirmed. Table 1 lists the codes and categories in the order they emerged.

After coding the pilot questions and developing the categories, the researchers analyzed the remaining three sets of data: *Watch and Wonder* questions from elementary placements in the fall 2014, and spring 2015 semesters, as well as one remaining set of questions from the spring 2015 secondary placement. In order to systematically analyze the data, the researchers created a method assigning the data sets to two of the three readers. Researcher A and Researcher B coded the secondary placement data from spring 2015; Researcher B and Researcher C coded the elementary placement data from fall 2014; and Researcher A and Researcher C coded the elementary placement data from spring 2015.

Findings and Implications

Previous research in teacher preparation has shown the importance of consistent development, continuity, and field experiences which allow teacher candidates to advance their development throughout the program (Darling-Hammond, 2006). Through candidate's observations and reflections, this research continued to observe many of the same deficiencies in program development that has been shown in prior research (Hughes, 2009; Schussler, Stooksberry, & Bercaw, 2010). However, the current research investigated the areas in which teacher candidates were most concerned. Conclusions and findings showed specific areas in which teacher education programs should develop in order to assuage the concerns of the teacher candidates. Focusing curricular classes on classroom management, student behavior, dispositions, and instructional strategies may allow the students to feel more comfortable in continuing toward graduating in the teacher education program. Confidence in these areas could allow the teacher candidates to show more creativity and motivation in learning realistic teaching methods.

Research questions showed a distinction between the concerns of students observing secondary classrooms and those in elementary age classrooms, however classroom management and instructional strategies were the top two concerns overall. Due to the collection of observations coming at the beginning of the teacher education program, the researchers believe that these two categories may be the top concerns because these two areas are covered in the more advanced program courses. Since the teacher candidates have not been required to take courses that cover classroom management or instructional strategies completely in the first year, it is understandable that these areas are a concern to them. Understanding this caveat, there still should be a concerted effort for teacher preparation courses to assess the entire teacher education

program to guarantee that the current required courses cover classroom management and instructional strategies in a consistent manner throughout the program.

Program directors understand the importance of the quality of the cooperating or observed professional teacher when assigning teacher candidates to a location. Especially in secondary placements dispositional questions and observations was the next highest category scrutinized by the students. Freeman (2009) in her guide to successful field experiences, highlights the importance of preparation and planning for providing 'good' teachers for the students to observe. Asking principals or superintendents is helpful, as well as considering requiring the professional teachers to go through short training sessions will allow for positive teacher dispositions to be observed by the teacher candidate. The primary researchers agreed that the concern for teacher dispositions by the teacher candidates was encouraging. Questions ranged from "Do teachers have to buy their own decorations for classrooms?" to "Is it necessary to show students tragic or dangerous videos?" For students to be questioning these qualities shows considerable perception of the diverse nature of teaching. While observing in the elementary classrooms these dispositional questions did not come up so often, rather students had more questions focusing on student behavior.

Student behavior was the final category with distinguishing questions from the teacher candidates. The researchers separated this theme from the rest due to the specific nature of the questions. This category was not a surprise as a distinctive subject, considering the transition of going from student to teacher is quite unique. Higher education freshman and sophomores in general have not matured to a level that would allow them to reflect on their own behavior in elementary school nor remember the diversity that exists within a classroom. Developing a course which deals with student behavior and how to deal with diverse nature of a teaching

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environment is difficult. Most programs require psychology and child development classes which can assist in developing knowledge about student behavior but many do not have the ability to help the students in making the transfer of knowledge to practice that is required of teachers. Curriculums need to continue to adjust in order to supply the teacher candidates with the entire realm of information and practice that is needed to be comfortable in performing in a classroom.

The importance of field observations, experiences, and practicums has been solidified in prior research for beginning teachers (Allsop,et al, 2006 ; Keefer, 2010). Using this practice to gain advanced knowledge from teacher candidates at the beginning of their training is invaluable. Learning from the students about their concerns of becoming a teacher will assist teacher education programs in developing curriculum that can distinguish themselves by developing students ready to make the transition between being a student and becoming a teacher. Finding that classroom management and instructional strategies were two of the main concerns of teacher candidates was not a surprise but is good to have a solid background to support the courses which deal with these issues. Dispositions and student behavior will be more difficult to ensure efficient transition from knowledge to practice but understanding the demand will support the development of courses that focus on these themes.

Future Research

Observation, reflection, and evaluative methods for teaching have been used by most teachers at one time or another. Research has helped to produce curriculum changes and enlighten administrators in the value of reflective practices that will enhance the development of teacher candidates, as well as current teaching professionals. The current researchers continued to raise questions on areas that would need additional research to produce even better

information for advancing the progress of student-teacher candidates. Combining categories, in-depth coding, longitudinal studies, and theoretical investigation are just a few of the ideas that came up during the process of evaluating the current data.

The simplest continuation of this research would be to separate the current codes and themes into more in-depth themes. A specific example would be to isolate the questions from the classroom management section into organizational activities, class rules, and transitional activities. Isolating each type of classroom management activity will show more specifically which areas the student-teacher candidates have more questions on. In turn this information will assist the curriculum focus on those precise areas rather reviewing a broad spectrum of classroom management skills that may not be as helpful for student-teacher candidates. Another area that would be helpful to separate into more distinctive categories would be the dispositions section. Considering the questions that arose within the current research; student relationships with teachers, colleague communication, and planning support were the most common in-depth themes that were raised by the students during observations.

Extending the research to incorporate a longitudinal study would not be difficult. Tracking the students as they have graduated and continued on to employment then requesting information on how much reflection each teacher is completing on their own, would be interesting to find out. Collecting long term data is difficult due to candidates moving and finding jobs in different locations, but the possibility of proving that with continued practice of reflection, once the candidate becomes a teacher they will continue to do reflection is very enticing. Habits formed during developmental phases are often continued until four stages of change have been completed (U.S.Dept. of Health, 2008). Allowing students to develop the habit

of reflective writing and observing with procedural questioning will help them continue this practice throughout their careers.

Reassigning questions to combined categories would bring out different levels of complexity about the data that may be helpful in designing classes or reconfiguring requirements for student teacher candidates. Comparing current EBI-Tee surveys with future surveys, would allow researchers to obtain other data points that would be helpful in comparing current practices of student candidates to their future practices when they are professional teachers. The last suggestion for future research would be to categorize the questions with a different theoretical or procedural base. The current study categorized with Bloom's Taxonomy in mind, starting with the knowledge and progressing to the understanding by requiring the questions after the student did observations. However, if one would look at the content of the questions with Fink's Taxonomy (Fink, 2013) which focuses on application and integration. The categories or themes may have resulted in a more comprehensive list as it includes categories such as "learning how to learn, the human dimension of learning, and the caring dimension of learning" (Apul & Philpott, 2011, p. 71). The categories may be considerably different, adding a distinct context to the questions that were formed. These are just a few ideas for further research which could be investigated from the current data.

Conclusion

Insight is needed on how teacher candidates perceive the complexities of the teaching-learning process during field experiences. A sense of wonder during classroom observations can enable teacher candidates to develop reflective practices. This research examines the questions candidates formulate using a *Watch and Wonder* field note format. As teacher candidates record what they watch in the classroom and create questions to reveal their sense of wonder, salient

themes include classroom management, student behavior, instructional strategies, and dispositions. A careful analysis of these themes uncovers the areas of concern candidates have and allows for adjustments in the teacher education program curriculum in order to address these issues. In addition, the data collected influences and contributes to the improvement and refinement of the field placement assignments in order to provide teacher candidates with positive field experiences optimizing their potential for reflection. When candidates are provided with a process in which to formally gather data, the resulting field notes according to their own perceptions, they are given the opportunity to become genuine investigators of the learning-teaching process and accountable for their development of reflective practices.

Appendix A

Figure 1 Example of Watch and Wonder Field Notes

Watch	Wonder
One Large Circle of desks in middle of class, with several smaller desk groupings surrounding.	- Why such an irregular pattern? - Does it make students comfortable/uncomfortable?
Females are sent first to sanitize hands and get breakfast, and then the males follow after.	- Why not send all students at same time?
- Most students ate breakfast	· Is the school providing a nutritious meal?
- Students come into class with a smart projector with CNN student news on display to start class.	- Are there any other educational websites that can be used as a homepage?
- Pledge of Allegiance is done during daily announcements	
- CNN video covers a plane crash story, and dash cams.	· Is it necessary to expose students to videos that show tragic or dangerous events? Why?
- Student walked into class, and all classroom students place their attn. on that one student who walked in.	- Is there a way to condition the classroom students so that they don't lose focus?
- When beginning the first lesson, each student opens their book and each student has a "passport" for filling out info for different countries that they're studying in the text.	- Is this a common method of teaching? - Do the students like it?

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Figure 2 Example of Watch and Wonder Field Notes

Table 1
Categories Identified by Codes

Categories	Codes
1. Classroom management/organization	Grouping of students, Routines, Procedures/Policies, Physical environment/space, Allowed
2. Formal curriculum/Systemic structures	Teacher has no control over, Class composition, Programs, Policies, Content
3. Discipline/Student behavior	Reactive, Handle, Deal with, Control, Consequence
4. Differentiated instruction/Modifications	Adapt, Different, Modify, Meeting needs of various groups, Other methods
5. Motivation/Engagement	Rewards, Teacher "get", Focus, Bored, On task, Encourage, Paying attention (or not), Interested (or not), Involvement
6. Social interactions	Joking, Attention seeking, Neediness, Communicating, Language, Talking, Conversation, Interact, Relation
7. Instructional strategies/Delivery of instruction	Way(s), Activities; game(s), Teaching; to teach, Incorporate, Demonstrate, Promote, Explaining, Prepare students, Method(s)
8. Professionalism/Dispositions	Character, Personality, Collegiality, Credentials, Attitude, "How can I…?", Draw the line
9. Parent involvement/issues	Home, Families
10. Assessment	Progress: keep track, Formative measures, "Know if", Questioning, Testing, Feedback, Grade
11. Learning styles/strategies	Learn best, Feel, Prefer, Benefit for students, Student respond/se
12. Technology	Online, Smart Board, Phones, Video, Calculator
13. Other	Not enough context in the question to identify a theme, Too many various content
14. Student Behavior	Act/Action, Behave/Behavior, Choices they make, Doing/not doing, Supposed to

References

Allsop, D. H., DeMarie, D., Alvarez-McHatton, P., & Doone, E. (2006) Bridging the gap
between theory and practice: Connecting courses with field experiences. *Teacher
Education Quarterly*. Winter. Retrieved from
research%20studies/watch%20and%20wonder%20research/Connecting%20Courses%20
with%20field%20experiences.pdf

Apul, D. S., & Philpott, S. M. (2011). Use of outdoor living spaces and fink's taxonomy of
significant learning in sustainability engineering education. *Journal of Professional
Issues in Engineering Education and Practice, 137,* 2, 69-77

Bloom, B. S., Krathwohl, D. R., & Masia, B. B. (1956). *Taxonomy of educational objectives:
The classification of educational goals*. New York: D. McKay.

Bogdan, R. C., & Biklen, S. K. (1998). *Qualitative research for education: An introduction to
theory and methods* (3rd ed.). Boston: Allyn and Bacon.

Borich, G. D. (2011). *Observation skills for effective teaching (6th ed.)*. Boston: Pearson.

Darling-Hammond, L. (2006). Constructing 21st century teacher education programs. *Journal of
Teacher Education*, 57 *(X)*. DOI: 10.1177/0022487105285962

Fink, D. L. (2013) *Creating Significant Learning Experiences: An Integrated Approach to
Designing College Courses* (2nd Ed.) John Wiley & Sons.

Frank, C. R. & Uy, F. L. (2004). Ethnography for teacher education. *Journal of Teacher
Education 55*(3). 269-283.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory*. Chicago: Aldine.

Hammerness, K., Darling-Hammond, L, Bransford, J., et al (2005). How teachers learn and
develop. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a*

changing world (pp. 358-389). San Francisco: Jossey-Bass.

Hughes, J. (2009) An instructional model for preparing teachers for fieldwork. *International Journal of Teaching and Learning in Higher Education*. 21 *(2)*, 252-257. Retrieved from: http://www.isetl.org/ijtlhe/   ISSN 1812-9129.

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Thousand Oaks, CA: Sage.

Loughran, J. (2006). *Developing a pedagogy of teacher education: Understanding Teaching and learning about teaching*. New York: Routedge.

Reynolds-Keefer, L. (2010). Improving the quality of experience journals: Training educational psychology students in basic qualitative methodology. *Teaching Educational Psychology 6(1)*. 20-32.

Schussler, D. L., Stooksberry, L. M., & Bercaw, L. A. (2010). Understanding teacher candidate dispositions: Reflecting to build self-awareness. *Journal of Teacher Education*, 61*(4)*. 350 –363 © 2010 American Association of College for Teacher Education Reprints and permission: http://www. sagepub.com/journalsPermissions.nav DOI: 10.1177/0022487110371377 http://jte.sagepub.com

U.S. Department of Health (2008) Changing your habits: Steps to better health. Retrieved from https://www.niddk.nih.gov/health-information/health-topics/diet/changing-habits/Documents/Changing_Your_Habits.pdf

Ward, J. R., & McCotter, S. S. (2004). Reflection as a visible outcome for preservice teachers. *Teaching and Teacher Education*, *20*(3), 243-257.

Young, T, & Bender-Slack, D. (Spring 2011). Where do I look? Pre-service teachers' classroom observation patterns. *Mid-Western Educational Researcher 24*(2). 15-26.

Zeichner, K. (2010). Rethinking the connections between campus courses and field

experiences in college and university based teacher education. *Journal of*

Teacher Education 61(1-2). 89-99.

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