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# The Field Experience Journal

###  *Volume 23 Spring 2019*

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From the Editor

Dear Readers of *The* *Field Experience Journal:*

This edition of *The Field Experience Journal* begins with a submission from Ksenia S. Zhbanovatitled, “International Pen-Pal Project: Benefits for Teacher Candidates”. This article describes the benefits to American pre-service teachers and students in a pen-pal project with a public school in Russia

 “Immersed, Embedded, and Connected: Opportunities for Early Field Experiences” by Terri Jongekrijg and Robert Wiggins shares the goal of early field experiences and the need to link university knowledge and learning to authentic practice of school classroom teaching and learning.

 In their submission, “Reflection vs. Critical Self-Reflection”, Pamela Vaughn and Susan Reily provide their beliefs about critical reflection during a practicum and how it impacted the learning opportunities for teacher candidates.

 Irene Frank and Mei Chang examine student teaching evaluations completed by both cooperating teachers and university supervisors in their submission, “Consistency in Student Teacher Evaluations: A Comparison of Cooperating Teachers and Supervisors”.

“Pre-Service Co-Teaching Research: The Continuing Value of Monitoring Student Achievement” shared by a team from Grand Valley State University comprised of Douglas Busman, Fatma Ayyad, Sheryl Vlietstra, and Paula Lancaster is a mixed-methods study where the team collected and analyzed both quantitative and qualitative data to ascertain how an implemented pre-service co-teaching model might influence teaching and learning.

 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

**International Pen-Pal Project: Benefits for Teacher Candidates**

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**Abstract**

This article describes a pen-pal project between American preservice teachers and students from a public school in Russia. Project description and suggestions on conducting similar projects are included. An international pen-pal project can be a valuable part of field experience because it allows teacher candidates to systematically apply knowledge of methods of teaching English Language Learners (ELLs) in an authentic context. Pen-pals exchanged 2 sets of letters. Teacher candidates engaged in inquiry-based discussions of diversity, teaching methods, and culturally-responsive pedagogy after every letter exchange. One of the main goals of the project was helping preservice teachers become more culturally- and linguistically- responsive through inquiry and self-reflection, which according to the participants, positively affected their future teaching practices. The insights of the participants can be divided into seven categories: inquiry, language-related difficulties; attitude toward ELLs; influence of culture; building relationships with students; common humanity and discovering assumptions through self-reflection.

**Keywords**: international pen-pal project, English Language Learner (ELL), culturally-responsive teaching, diversity, authentic field experience

**Introduction**

Communication is vital for reducing prejudice and building relationships based on deep understanding (Allport, 1954). This understanding and emerging relationships can allow them to recognize each other as humans with a common “core” of values and needs, rather than “abstract” groups (e.g. Russians) or a “collection” of diverse characteristics (Miller & Mikulec, 2014). Teachers need to view diversity from a strength-based perspective, which is essential to successfully address the needs of culturally and linguistically diverse students.

**Culturally and Linguistically Responsive Teaching**

The world today is becoming more and more interconnected making education more international at all levels (Balistreri, Giacomo, Noisette, & Ptak, 2012). According to the National Center for Education Statistics (2017), the number of ELLs at public schools increased from approximately 9.1% or 4.3 million students in 2005 to 9.4% or 4.6 million students in 2015. Thibehault, Kuhlman, and Day (2011) reported that approximately 1.5 million school students in California are not proficient in English to partake in daily classroom activities. This makes teachers’ goal of helping all students reach their full academic potential harder to reach (Auslander, 2018). To effectively work with ELLs, educators need adequate preparation that includes developing positive dispositions, understanding of language as a system tightly connected with culture and their impact on teaching and learning. Teachers need to deliver instruction based on the culture, knowledge, and experience of each child because a familiar cultural context is one of the vital components supporting academic success of ELLs (TESOL, 2010). This context is also the essence of culturally- and linguistically- responsive teaching (Ladson-Billings,1994).

Preservice teachers in the study by Terrill and Mark (2000), indicated that they felt uncomfortable about working with ELL students. Coursework focused on methods and strategies for ELLs is not enough. According to the Constructivist theory, preservice teachers need to apply knowledge from these courses to fully integrate it into their practice (Jones, Flohr, & Martin, 2015). Hence, during field experiences, they need opportunities to work with ELLs in an environment enhancing teacher candidates’ sense of self-efficacy (Stoynoff, 1999; Singh, 2017). Field experience is one of the most influential components of Teacher Education (Galindo & Newton, 2017). Its effectiveness depends on engaging teacher candidates in systematic inquiry and self-reflection (Kayapinar, 2016), which connects knowledge from methods courses to real-life situations (Caprano, Caprano, & Helfeldt, 2010). Inquiry and self-reflection are also essential to foster an attitude of appreciation for diversity and a deeper understanding of the role of language in teaching and learning. Additionally, they help candidates investigate their beliefs, biases, and misconceptions (Ladson-Billing, 1994).

A study of an authentic field experience for preservice teachers demonstrated that interacting with diverse populations of students helped candidates reach a deeper understanding of the concept of diversity, relate to students, and see them as “real” children, not abstract categories with separate attributes, such as ethnicity and language (Miller & Mikulec, 2014). Unfortunately, not all universities have access to schools with diverse populations. A pen-pal project with international students could be a valuable part of field experience, help candidates embed theory into practice, and become culturally-responsive, reflective professionals.

**Current Project, Lessons Learned, and Suggestions on Conducting Pen-Pal Projects**

 During this project, I collaborated with a teacher of English as a Second Language in Russia. Participants were 10 education majors from a university in the Southeastern United States and middle schoolers from a public school in a large city in North Eastern part of Russia. Teacher candidates were intrigued, and excited about the project because, as many of them shared, they have not done anything of the kind before. They had about a week to write the initial letters. The project allowed a lot of freedom for self-expression (see Appendix A for project guidelines and candidate-generated ideas). Candidates only knew the pen-pals’ first names, gender, and age. Letters were scanned and emailed to the teacher in Russia. She printed them and helped her students write responses over a course of 2 weeks.

 During a lively in-class discussion of letter-writing, many of the candidates noted that writing to someone they have never met was difficult and proposed that it would have been even harder for their pen-pals, which demonstrates empathy toward the pen-pals. Also, candidates expressed worries about unintentionally hurting the pen-pals through miscommunication due to cultural differences. This too demonstrates a growing empathy and understanding of possible implications of cultural differences. Another shared emotion was the excitement about talking to “real kids” from a different country.

 This pen-pal project gave candidates a chance to practice communicating with ELLs in a supportive atmosphere with access to necessary resources, which, according to my observations and candidates’ feedback, helped them feel more comfortable about ELLs. The atmosphere of letter-writing is conducive to exploring other cultures, developing cultural sensitivity and appreciation of differences (Peters,1985; Charron, 2007). Before teacher candidates began working on the second set of letters, the initial requirements for the letters, except general format, were dropped to help communication stay authentic and be guided by the participants and their interests. I skimmed all incoming and outgoing letters to find examples for class discussions and to be ready to address possible miscommunication.

 During discussions, preservice teachers practiced inquiry and investigated the role of culture and language in communication, teaching, and learning. We examined challenges they faced when writing and reading letters, found similarities and differences in pen-pals’ responses and made connections with culture, life experiences, language proficiency, and others. I encouraged preservice teachers to lead these discussions because social interaction is crucial for connecting new and preexisting knowledge according to Vygotsky’s Theory of Language Development (Charron, 2007). I also asked guiding questions to ensure that such important factors as socioeconomic status, ability levels, religion, and others were taken into consideration when inferring about the implications of linguistic and cultural differences in classrooms. The following situation is an example of such discussion: One preservice teacher read a sentence from her pen-pal’s letter where he stated that he was in eighth class. Teacher candidates quickly understood that the pen-pal meant “eighth grade”. One proposed that the word choice was influenced by the limited English proficiency. Another candidate applied her knowledge of methods of teaching ELLs and asked me to translate the word “grade” into Russian. After hearing a word that sounded very similar to the English word “class”, she suggested that the pen-pal may have assumed that these words have the same meaning because they sound alike.

In addition to culture and traditions, Russian pen-pals wrote about their friends, pets, hobbies, schools, etc. Preservice teachers noticed many similarities and differences between American and Russian schools and proposed that they are caused by the similarities and differences in culture, history, and economic situation in the countries. According to Hare (1999), such cross-cultural experiences help participants see the degree of influence of the broad social and cultural contexts and processes on a person’s life and world view. Despite these differences, the candidates began building relationships with their pen-pals. In fact, several of them were offered to stay connected after the project. The current project concluded with obtaining feedback from the candidates on the project’s utility for future teachers.

**Inquiry**

The authentic context of the pen-pal project provided a clear purpose, strong motivation, and numerous opportunities to use inquiry and self-reflection. Preservice teachers experienced and analyzed situations that often arise in a classroom with ELLs. Rankin (1992) also found a pen-pal project between university and elementary students to be highly effective for developing teacher candidates’ critical thinking. This result seems unsurprising because interacting with culturally diverse students cultivates critical thinking and creative approach to teaching (TESOL, 2010). Because inquiry is one of the main components of a successful teacher preparation program (Caprano, et. al, 2010), I devoted a significant portion of the course to discussions guided by the candidates toward the topics they found meaningful, which motivated them to practice noticing, inquiry, and self-reflection. Participants were eager to share, ask questions, infer about the causes of the issues discussed, give suggestions, and hypothesize how these issues could manifest at school. There were several themes that seemed to have facilitated inquiry and self-reflection the most: language-related difficulties; attitude toward ELLs, influence of culture, education, and life experiences; building relationships with students; common humanity; using self-reflection to discover preexisting assumptions of preservice teachers. These themes also represent the main learning areas.

**Language-related difficulties.** According to Merriam Webster (n.d.), a language barrier is “a difficulty for people communicating because they speak different languages”. Challenges related to the language barrier that naturally occurred during this project are likely to happen in a classroom. For example, one candidate asked: “What are some of the tools you used or ways that you determined phrases or words that were not clear?” This question ignited a discussion of strategies from various methods courses. Another candidate reported that her pen-pal wrote about a dish he called “flotation pasta”. After some deliberation, they concluded that the pen-pal translated the name of the dish word for word due to limited English proficiency, and the meaning of the name of the dish was lost. Then, they proceeded to discuss possible impacts of the language barrier on teaching and learning. Preservice teachers determined that using differentiation strategies is critical for student academic success, particularly during assessment to ensure the knowledge and understanding of the content are assessed, not language proficiency.

 Several candidates found misspellings in their pen-pal’s letters. Among others, they referred to the spelling of the word favorite (favourite). One made a connection to her preexisting experience with American students and suggested that the pen-pal used phonetic spelling. Yet another candidate offered a different explanation. She showed the word “theater” spelled differently (theatre) in her pen-pal’s response and stated that this was a British spelling of the word. I confirmed that often, Russian students are taught British spelling and pronunciation. Candidates concluded that to address the needs of ELLs, teachers need to first clearly understand the difficulties ELLs are experiencing and their causes. Candidates also determined that language has a profound impact on all aspects of ELLs’ learning and socialization.

**Influence of the project on attitude toward ELLs.** Exchanging written letters with Russian adolescents gave preservice teachers a chance to become more attuned to the needs and struggles of ELLs through building personal relationships with the pen-pals and sharing their feelings, thoughts, and concerns with supportive peers. One of the teacher candidates shared her discovery with the class: “…these kids from Russia … How nervous they were because it is a big deal to write a whole letter. It probably took them a lot [of time].” Another remarked: “…so if we did it in Russian, it would take up to 2 weeks.” Preservice teachers then expressed the new appreciation of their pen-pals’ bravery and discussed how awareness of this challenge affected their future teaching practices and improved their attitudes toward ELLs.

Another candidate shared a personal story about attending a school where students weren’t accepting of the ELLs. Peers diminished and disregarded their struggles by saying that they needed to “just learn how to speak English!”. She expressed her disapproval of this treatment and stated that after the pen-pal project, she developed a strong appreciation of the ELLs’ struggles and empathy toward them. Others agreed that being more understanding of the ELLs will be much easier because of this communication with Russian teenagers. Another effect of this project indicated by several candidates was a desire to learn the native languages of their future ELL students to help them learn better and feel welcomed. All preservice teachers were delighted to see how effortless building personal relationships with Russian students was.

**Culture, education, life experiences, and their influence.** During the project, teacher candidates discovered many similarities and differences between American and Russian cultures. According to my observations, these discoveries and the subsequent discussions helped them become more curious about other cultures and the effects of culture on a person’s behavior and perception of the world and teaching and learning consequently. For example, preservice teachers concluded that what is considered “mundane” in one culture could be perceived completely differently by someone from another culture. One of them shared: “I have read in a few letters that the students go to the "country" or the "village" during summer. I am not sure if that is something that a lot of people from Russia do.” Another candidate continued with an example from her pen-pal’s letter:

“‘Soon we will go to the country. We will plant vegetables, fruits, flowers.’ That was different to me because I go to the country every day. I actually live in the country. He talked about going to the country like he does not go there very often.”

The next preservice teacher added: “That is very strange about these trips to the country. This makes me wonder if this is (a) job that his family must do. (...) I would love to know more about “the country.” I explained that what the pen-pal was referring to was either visiting grandparents who live in the country or renting a summer cottage with his parents to get away from the big city life and grow some produce to use in winter. Preservice teachers indicated that this seemed odd to them, but then added that some American customs they introduced the pen-pals to could have seemed strange to Russian teenagers. This discussion lead to a conclusion that a student’s behavior is largely affected by his/her culture, habits, education, life experiences, and that it is vital for teachers to educate themselves and keep an open mind. Preservice teachers also concluded that these factors are so intertwined that it is often hard to distinguish which factor influenced the pen-pals’ reactions, the content of letters, and others.

Many discussions involved comparing educational systems of the countries. Teacher candidates concluded that transferring from one system to another can significantly influence student academic success and emotional wellbeing. One of the Russian pen-pals explained to his/her counterpart which grade levels are considered elementary, middle, and high school. She began a discussion with the following question: “…I think I saw one letter that said they start kindergarten at the age of 2. If this is so, how do you think American children would handle kindergarten?” Another candidate added “B.’s pen-pal said that she is taking 17 subjects in school! What are your thoughts on students taking so many subjects?” Preservice teachers felt that so many subjects must be overwhelming for the students, but after a discussion and some research on Russian schools, they concluded that the number of minutes allotted for each lesson makes it possible to create a reasonable schedule with 17 subjects.

After learning that Russian students typically begin first grade at 6-7 years of age, stay with the same group of peers until graduation, have same schedules, and are required to take all classes offered at the grade level, preservice teachers hypothesized that if a Russian teenager transferred to an American middle school, he or she would be confused by the schedule and may not feel comfortable being with a different group of peers in each class.

Differences in culture and traditions was another prevalent discussion topic.

“Another thing that I noticed was the dates of their holidays. C. explained that February 23rd is "the day of men." This may be Father's Day. If so, the times these holidays are celebrated are different for our countries. Also, March 8th is "the day of women." If this is the equivalent of Mother's Day, this is also celebrated on a different day. This could be because of the diversity between the countries.”

This observation opened a discussion of the significance of culture, traditions, and holidays and ways to ensure that culture and traditions of all students are appreciated at school.

**Joy of building relationships**. Rankin (1992) found a pen-pal project to be an effective method of building relationships between schoolchildren and teacher candidates who became positive adult figures for them. During the Russian pen-pal project, preservice teachers often asked if the responses from their pen-pals arrived and were excited to read and discuss them. They often said: “I just love my pen-pal!”; “I Can’t wait to read D.’s reply!”; “I hope she answers my question about her extracurricular activities, I am interested in how she manages to do so much.”; “I thoroughly enjoyed reading letters from my pen-pal.”; “I feel the same about the letters. They were exiting and enjoyable!” This project became personally significant for the participants, in part, thanks to the joy of communication and building relationships with the pen-pals. Teacher candidates often asked questions like “Will I offend them if I ask about…?” These instances demonstrated emerging care for their counterparts. Same attitude was noticed in Russian pen-pals. One of the candidates shared: “I enjoyed how much excitement the students had just to write to adults in the US.” Another noted: “They all seemed very self-conscious about what we thought of their letters… That really showed me that they cared about us.”

Yet another candidate said: “I feel it [the pen-pal project] helped us make a personal connection. We don’t know somebody from Russia, and we have this abstract concept of this “somebody from Russia” and no personal connection here. By having a pen-pal, you get to know them, they tell you about their life and their interests, you are able to connect in a way that otherwise would not be possible.”

The ability to connect and relate to diverse students is necessary to become a culturally-responsive teacher and is one of the major elements of effective classroom management that influences student academic achievements (Beaty-O’Ferrall, Green, & Hanna, 2010). Building relationships with people who are like us is easy, but what about someone who is immensely different? Preservice teachers discovered that this is not as hard as they thought. One of them shared that when the project was introduced, she worried about not being able to communicate with Russian teenagers because she has never met them and felt they must be very different. These fears evaporated after she read the first letter from her pen-pal.

**Common humanity, kids are kids everywhere.** Building relationships requires the ability to see shared humanity in everyone. Several of the candidates reported that as they were getting to know their Russian pen-pals, they began seeing them as individuals with similar values, not as an abstract category “Russians”. Similar results were obtained in a study by Barksdale, Watson, and Park, (2007). The pen-pals in the study were intrinsically motivated to seek similarities between the cultures and develop an appreciation for differences while talking about aspects of their lives and building personal relationships. During my pen-pal project, one of the candidates shared:

“The whole experience gives me a different perspective of Russia… It bothers me when I see or hear negative things on the news about Russia since we have seen the sweet faces of our pen-pals. I think about the fact that there are real people just like us in Russia...”

Another major theme that dominated class discussions was the fundamental similarity in values (e.g. kindness, honesty) and needs (e.g. love, safety) between American and Russian schoolchildren. One of the teacher candidates stated: “…I feel like now when we look at 13-year-olds, we won’t see them as kids from another country, but as just kids.” Another summed up the results of the discussion very eloquently: “I felt like I was reading a letter from one of my students at school. It made me realize that kids are kids no matter where they are from.” Then, they generalized this conclusion to all people:

“I agree and I hope that once people see that Russians are human beings just like us, they will see them differently, in a more positive way. I know my assumptions have changed and to see that they are just like us. Our pen-pals are kids just like our own kids. They like some of the same things our kids like, this shows that kids are kids no matter where they come from. This is the same for all other people, Russian or American it doesn't matter how diverse we are, we are all still people.”

Discovering this common humanity involved examining the participants’ own beliefs and assumptions, which happened naturally during discussions and letter analysis.

**Discovering assumptions through self-reflection.** This project allowed multiple opportunities for self-reflection and analysis of the candidates’ preexisting stereotypes. Self-reflection and awareness are vital for developing cultural sensitivity (McAllister & Irvine, 2002). Preservice teachers in my project made the same conclusion after deliberating on questions posed by one of them. “Did the responses to any of these letters make you picture Russia or Russian schools a little differently than before? How do you now picture it to be? Another candidate added: “E.’s pen-pal said that he hoped this type of correspondence would improve Americans' opinions of Russians.” Another preservice teacher shared with the class:

“Also, F. said, "I wish you to find your happiness and have a good rest." This was so sweet and eye-opening because I stereotyped Russia in a bad way because of rumors, news, and their ruler, and A. is just as sweet and kind as he can be. He seems to want peace and happiness just as I do.”

This discussion concluded with a suggestion that the candidates also have stereotypes and assumptions about other groups of people who they are not familiar with, such as those practicing a different religion. Preservice teachers expressed a commitment to use self-reflection in their daily teaching practice to minimize the influenced of preconceptions and stereotypes. **Evaluation of the Project**

According to the candidates’ feedback obtained during class discussions and anonymous project evaluation, they had a joyful and rich learning experience. Two preservice teachers stated that this was their most favorite project. The majority commented on its high educational value, reported an increase in compassion for ELLs, a deeper understanding of challenges they face as well as of ways to address these challenges. This feedback indicates that an international pen-pal project is a valuable educational experience for preservice teachers because it provides an opportunity to practice methods of teaching ELLs and aids in developing cultural sensitivity, appreciation for diversity. For example, at the time of the project, the candidates were completing their field experience at local public schools. They told the schoolchildren about the Russian pen-pal project and showed them pen-pals’ letters. Several read and discussed all letters from the pen-pals with their schoolchildren. Some incorporated these letters when teaching English grammar and punctuation. Preservice teachers also expressed a desire to conduct a similar project with their future students. This indicates that the project affected the participants’ teaching practices. One candidate reported that she felt significantly more comfortable regarding the perspective of working with culturally and linguistically diverse students and felt less likely to jump to conclusions. Everyone nodded in agreement.

**Possible Project Extensions**

An international pen-pal project can compensate for the lack of opportunities to work with ELLs in teacher preparation programs in areas with a small number of ELL students and a low level of cultural diversity. Such project does not have to be limited to writing letters. Preservice teachers in my class recorded a video for their Russian pen-pals where they introduced themselves, showed some local sights, talked about their families, culture, etc. Their counterparts recorded a response-video. Another exciting extension of the project can be an exchange of souvenirs and culture-related artwork via mail. Live communication through Skype, if the time difference is not too substantial, could be another beneficial extension. Teacher candidates and their pen-pals can collaborate on a science or other project. The web site PenPal Schools offers teachers and students from different countries to work on projects related to various subject areas and topics. Appendix B includes links to web sites that can aid in finding partner teachers or pen-pals from other countries.

**Tips and Suggestions**

Appendix C includes stages of the project with corresponding major goals that can be adjusted to the needs of various courses. Using email eliminates the need to collect and scan letters, gives the pen-pals greater ownership of the project, and makes keeping track of all letter exchanges easier.

 The difference in commitment levels of participants may present a challenge, which can be alleviated by deciding on a course of action for such situations in advance. Preparing a schedule of letter exchanges beforehand helps ensure that the differences in school schedules do not interfere with the project. Prewriting, postwriting, and discussions at all stages of the project are vital to timely address misunderstandings, promote collaborative learning and investigation of different perspectives on the issues of diversity. Candidates can generate a list of possible conversation topics and questions for future pen-pals during the introduction of the project to ease the challenge of writing to a stranger.

**Conclusion**

Preservice teachers found this project beneficial and highly engaging. The authentic context provided a strong motivation to learn about Russia and Russian culture. Candidates built relationships with the ELL pen-pals, which helped them feel more comfortable about working with ELLs in the future. This project created a safe environment to use inquiry to address the needs of ELLs, explore personal beliefs and assumptions regarding diversity. Preservice teachers discovered common humanity between all people and the impacts of various aspects of diversity on teaching and learning. A similar project can become a valuable part of field experience for preservice teachers. Teacher candidates in this project expanded their understanding of linguistic and cultural diversity, discovered preexisting assumptions and misconceptions and recognized the importance of inquiry and self-reflection for teachers. The candidates’ motivation to differentiate instruction to meet the needs of the ELLs also increased.

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**Appendix A**

Project Guidelines and Candidate-Generated Ideas

1. Hand-written in pen (scanned letters written in pencil are hard to read)
2. At least 1 page (one-sided)
3. Ideas; what we can talk about in the first letter. Information about us:

- some information about America and American culture

- some information about American schools

- some information about our state

- some personal information (e.g. pets, favorite food, favorite subject at school, extracurricular activities, hobbies, etc.)

1. At least 4 questions to help the ELLs with generating ideas for their replies
2. Ideas: questions we can ask in the first letter:

- a question about qualities they value in teachers

- a question about their favorite school subjects/activities

- a question about their hobbies and personal interests

- a question about their aspiration for the future

1. DOs

- include photos or drawings to illustrate the letters.

- have fun

1. DONTs

- Do not use cursive

- Do not use slang or idioms or explain the meaning

**Appendix B**

Resources that May Help Locate Pen-Pals

|  |  |
| --- | --- |
| Web Site | Link and Description |
| Students of the World | French non-profit association that can help find pen-pals of similar age from the majority of the countries of the world. <http://www.studentsoftheworld.info/menu_infopays.html>  |
| Peace Corps | Connects students with Peace Corps Volunteers to facilitate intercultural communication. <http://pcrmweb.peacecorps.gov/cn/aflq5/rpcvspeaker>  |
| iEarn | Connects teachers from different parts of the world. A teacher can announce an idea for a collaborative project (e.g. a pen-pal project) and find partners.<https://iearn.org/cc/space-10/group-171/about>  |
| PenPal Schools | Offers teachers and students from different countries to collaborate on projects related to various subject areas and topics.<https://www.penpalschools.com/>  |

**Appendix C**

Stages of Implementation of the Project

|  |  |  |
| --- | --- | --- |
| Stage | Timeline & Duration | Description |
| Introduction  | First meetingAbout 30 min. | Introduction of the project, timeframe, requirements, answer student questions.Goals: Ensure a clear understanding of the goals and requirements. Address possible reservations. Collaboratively generate ideas and questions for letters. |
| Send initial letters to Russian pen-palsDiscussion  | 1 weeklaterAbout 40 min. | Candidates bring written letters to class or scan and submit them online.Discussion of the experience of writing letters to ELLs. Areas: content, difficulties, thoughts, and emotions experienced when writing, questions regarding the project. Goals: reflect on the experience of writing to a foreigner, become aware of feelings and preconceptions about the pen-pals. Through inquiry, become aware of possible prejudices. Practice self-reflection. Address potential fears regarding ELLs. Discuss any insights concerning diversity. Promote cultural sensitivity and multicultural awareness. |
| Read Russian pen-pals’ responses Discussion  | 2 weeks laterAbout 40 min. | The partner teacher emails scanned pen-pals’ responses; candidates read and discuss them.Goals: clear any misunderstandings (e.g. caused by the language barrier) through inquiry and application of knowledge from methods courses. Discuss the effects of language, country of origin, and culture on communication and their potential implications for teaching practice. Promote cultural sensitivity and multicultural awareness. Discuss any other insights regarding diversity. Compare Russian and American cultures, daily life, schooling, and make inferences regarding teaching and learning based on the comparison.  |
| Send responses to Russian pen-palsDiscussion  | 1 week laterAbout 40 min. | Candidates bring written letters to class or scan and submit them online.Comparison of the experience of writing the first and second sets of letters.Goals: Practice self-reflection and Inquiry. Discuss changes in the content of the letters, grammar, style, and others. Determine the reasons behind the changes. Share methods/strategies/approaches to working with ELLs employed during the project. Promote cultural sensitivity and multicultural awareness. Share insights regarding diversity and its effects on teaching and learning. |
| Read Russian pen-pals’ responses Discussion | 2 weeks laterAbout 40 min. | The partner teacher emails scanned pen-pals’ responses; candidates read and discuss them.Goals: address misunderstandings. During discussions, use inquiry and apply knowledge from methods courses to determine the educational needs of the pen-pals. Discuss possible ELL strategies that could help the pen pals improve their English proficiency. Share new learning regarding ELLs, the role of language, cultural similarities and differences; discuss changes in attitudes and dispositions, and any other insights about diversity acquired from reading the responses. Address possible uncertainties regarding ELLs. Practice inquiry and self-reflection. Promote cultural sensitivity and multicultural awareness.  |
| The Final discussion of the project | 1 week laterAbout 40 min. | Discuss the project as a whole and its effects.Goals: Reflect on the experience, new learning; changes in dispositions and feelings toward ELLs. Discuss the implications of the project for future teaching. Practice critical thinking and inquiry. Promote cultural sensitivity and multicultural awareness.  |
| Candidates evaluate the project | 1 week laterAbout 15 min. | Candidates complete the anonymous survey.Goals: Obtain feedback about strengths and weaknesses of the project. Obtain additional comments, suggestions, ideas, conclusions about new learning, and any other changes caused by the project. |

**Immersed, Embedded, and Connected: Opportunities for Early Field Experiences**

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**Abstract**

It is commonly accepted that the culminating student teaching experience is not sufficient and that students also need early field placements to fully prepare them for the final internship. One important goal of these early field experiences is to link university knowledge and learning to the authentic practice of school classroom teaching and learning [Darling-Hammond, 2010a; National Council for Accreditation of Teacher Education (NCATE), 2010; Ohana, 2004]. However, the problems associated with the traditional placement process are myriad. Consequently, many early field placements are not only less than ideal, and the impact of these early fields on pre-service teachers’ development is not clear. This paper concerns one university’s attempt to address some of these problems by offering an alternative early field experience that connects to two required courses and immerses elementary level teacher candidates in a local public-school experience where they put content into practice and also become immersed in the community.

**Keywords:** teacher education, field experiences, authentic learning

**Literature Review**

**The Purpose of Fields/Problems Associated with Traditional Field Experiences**

The literature indicates a general agreement that the purpose of field experiences is to link theory and knowledge taught in university classes with real practice in classrooms. Darling-Hammond (2010b) called field experiences the “Achilles heel” of education (p. 8). “Often, the clinical side of teacher education has been fairly haphazard, depending on the idiosyncrasies of loosely selected placements with little guidance about what happens in them and little connection to university work” (Darling Hammond, 2010a, p. 40). Universities and K-12 schools have historically been viewed as sharing the task of preparing teacher candidates; unfortunately, they often do this separately. As far back as 1996, Ryan, Toohey, and Hughes described candidates applying knowledge, skills and dispositions learned in college classes to experiences as two separate entities that happen independently and hierarchically. This is particularly important in the early fields that occur before student teaching and may be because students in beginning foundations courses have little knowledge and understanding about teaching and learning other than what was modeled for them by their own K-12 teachers. They have little theoretical knowledge of or skills in design, assessment, management, or strategies for diverse learners. When observing teachers or working with pupils in the traditional field experience, students often miss moments that directly relate to course material. Wasburn-Moses, Kopp, and Hettersimer (2012) note that teacher candidates need guidance from an expert in interpreting experiences to see the “big picture” of teaching and learning. Candidates’ novice status during these first foundations courses means they need to be given focus, support, opportunities to reflect, and guidance in understanding what they see and do in classrooms.

Sutherland et al. (2010) suggest there is a mismatch between knowledge and understanding of teaching developed in these different contexts. The disconnect between theory and practice has been continually documented.(Allsopp, DeMarie, Alvarez-McHatton, & Doone, 2006; Bullough, Birrell, Young, Clark, & Erikson, 1997; Bullough et al., 1999; Darling-Hammond, 2010a; Erdman, 1983; Wasburn-Moses et al., 2012; Zeichner, 2010). Another issue is that a traditional field experience is typically accomplished by students attending a couple of hours at a time. This precludes getting to know children well, knowing support staff, seeing different subjects and methods, and observing any continuity on how teaching/learning happens, how community/relationships are built, and how classrooms are run.

Students come to university classes with questions about what they have seen and done in field experiences. Professors may be reluctant to discuss these questions for a variety of reasons. There is also a risk that students may misinterpret/misrepresent what they saw to the instructors. Additionally, a question may not be answered because it does not relate to the specific course content. These factors can lead to a disconnect between what students learned in class and what they saw in fields (Allsopp et al., 2006). Connecting course learning with field practice must be an intentional, planned, and supported effort on the part of instructors.

Welsh and Schaffer (2017) note studies that suggest improved preparation when faculty both teach courses and are also involved in field experiences. Bier et al. (2012) state that pre-service candidates report improved understanding when faculty helped them to make sense of what they saw in schools. Ohana (2004) also notes that students use each other as experts when interpreting their experiences supporting the constructivist theory component.

The problems identified in the literature, as well as the call to integrate knowledge and skill learning with practice, prompted us to design a set of courses taken early in the program based in an immersed school setting. To address the issues in the literature, we created not just an alternative approach to field placement, but a revamp of how we teach these courses. We decided to teach class onsite at a local elementary school in an intensified, short semester and to include the field time as part of the coursework that happens during class meeting times.

**Methodology**

Our school is a large Midwestern university with an enrollment of approximately 20,000 students. The first semester of the elementary education program consists of foundation courses, followed by three semesters of methods courses and a semester of student teaching.

Because we were interested in the viability of an alternative approach to field placements, we chose to look at one situation to gain a better understanding of what this field experience might mean to the participants. We were hopeful that an examination of this situation might resonate with and be helpful to others who are attempting to improve the field placement experience. Consequently, we structured this as a qualitative study and gathered data from several different sources over two summer intensive sessions. It is important to note that, since these were five-week summer semesters, most of the students only had these two courses. We have since implemented this approach in a modified form during the regular semesters.

**Context of the Study**

The setting was a nearby suburban public elementary school serving grades K-5. We utilized four classrooms for our field placements--two each at the second and third grade levels. We wanted our students to be immersed in school culture, so we arranged for our university students to spend four weeks in the school from 8:00 am-4:00 pm daily. In the mornings, we taught Instructional Design and Assessment content, worked with the 2nd-grade classes, and debriefed the experiences. After lunch, we worked with the 3rd-grade classes, debriefed, and taught the Management and Diversity course content.

In collaboration with the classroom teachers, it was decided that it would be most valuable if our students had time to observe the experienced teacher and also time to work with small groups of students. The third-grade students were engaged in a language arts/science project in which they were to write informational texts based on computer research. The teacher set up the goal each day, in an approximately 20-minute, teacher-led lesson, and the university students then worked with one to three children to do the task of that day after watching the teacher teach the lesson. The second-grade groups were working in groups of six with two university students on communication projects by creating a skit based on books about leadership habits and then videotaping the performances. This project gave more leeway to the university students in how they worked with children and progressed with the project. During field experience sessions, all students attended the same classroom at the same time each day. University instructors also attended the field experiences and made observational notes to use in the debriefing session. The second immersion session was a larger group of university candidates and, therefore, were sometimes broken into two groups to go to two different classrooms. In these instances, one instructor went with each group.

   To make connections to their coursework, the pre-service teachers were given specific focuses for each observation. These included: objectives; formative assessments and how these informed decisions; observations of how teachers managed materials, space, time, and children; observations of students’ behaviors and teachers’ responses and reactions; questioning; and generally, anything they saw related to their coursework. During the debrief sessions, students were asked to discuss the focus items as well as other things they may have noticed or questioned. They also discussed how they had interacted with their students and talked through situations about which they were unclear or wanted input. Instructors collaboratively discussed these observations with students, facilitated students’ discussions to negotiate   meaning, and offered insights and perhaps even advice in response to students’ questions.

**Participants**

The participants were 34 pre-service elementary teacher candidates enrolled in the two co-requisite foundations courses. Students self-selected to take the immersion format courses in the summer semesters. We collected data over two summers. Thirteen students participated in the first offering. This set of students was all female and of traditional college age. In the second summer offering, 19 female and 2 male students (21 total) of traditional college age participated.

**Data Collection**

We used several data sources to gather information. At the end, students engaged in small focus groups which were recorded, transcribed, and analyzed. The course instructors led the groups and began the discussions with pre-prescribed questions that changed and evolved during each session as the discussions progressed. The four participating classroom teachers were another focus group. We hoped these discussions would serve to triangulate the perceptions of the preservice teachers and possibly provide insight. In addition, we took notes about each observation so that we could discuss the focus with students each time. These anecdotal notes also became a data source as we were able to find themes to which students returned often.

**Analysis**

Our analysis process was primarily reading and rereading our transcribed data following an open coding process (Strauss & Corbin, 1990). As Maxwell (2005) advises, we began analysis as soon as we had data available and continued throughout the study. We began with the issues surrounding field placements that are identified in the literature and used these as a basis for shaping our analysis (Patton, 1987). Consequently, there was an element of a priori decision making in the process; however, we were careful to look for disconfirming evidence and checked our field notes to confirm our themes. We also engaged member checking (Lincoln and Guba, 1985) by sharing our findings with our students. The participants’ agreement with our findings giving us confidence in the integrity of the process.

**Discussion of Findings**

The first question asked of students in the focus groups was, “Why did you choose to enroll in this summer immersion site-based program?” A typical response given by many was the convenience of accomplishing 8 credits and a 30-hour field experience in 19 days. Almost all students in both groups mentioned that being at school all day for 19 days was much more convenient and less time consuming than a traditional semester. We found it interesting that only a few students mentioned that they really wanted to get a “teacher day” experience.

Yet, convenience was not the only motivation. Another clear theme reiterated the problems noted in the literature about traditional field placements. Though some students had what they felt were good experiences in previous placements, several students stated they felt their former fields were about sitting in the back of the room and observing or taking notes or not really doing much. In describing former traditional fields, students made statements like:

* “You miss a lot in the seven days you’re gone from the classroom, so you feel---more like a stranger every time you enter in there.”
* *“*I’m not really doing anything and I’m not there for a reason. I’m just kind of observing and I’m not learning anything and… sometimes I feel like it’s more of a like oh, my gosh, I’m missing work for this.”

Six of the 34 students mentioned the word “stranger” for how they felt/their perception of their role in traditional field and two others used the terms “volunteer” or “extra person”.

As suggested in the literature, many of the students shared that instructors in traditional semesters often did not talk about what was happening in schools. This was actually mentioned by 20% of the participants in the focus groups and the transcripts showed that the comments had both verbal and non-verbal agreement from many others. Comments that reveal this trend are:

* “When I’d come back to class with my professor, we did not talk about the experiences at all. So, we didn’t like get to relate anything we talked about in class to what we’re doing at the schools or anything. “

Or they were given assignments to focus on in class, but,

* “Well, a week later, when I’m in a field placement after I’ve had, you know, six more classes in between there and work and all this other stuff, and I go in my field placement and I’m like, “ok, I’m here. What do I have to do while I’m here?” I don’t remember the things that we talked about….”

Focus group participants were also asked,“How was this experience different in structure from your previous field experiences?” Responses repeatedly referred to the ability to immediately apply course content to real classroom situations, whether that was in using information and skills working with children or being able to identify concepts and examples of course content in their observations of teachers and teaching. Because students learned new content in the on-site university classes each day, we were able to give specific focuses for each observation. “Real,” “live,” and “directly,” were words students used to describe the immediacy of connections between content and classroom experience. Representative comments showing this include:

* “You learn something in class and then you see what you learned, like right then and there. Like right after. And then you come back and debrief on it; it was just cool to see it, like, live basically.”
* “We are going to have instruction, a lecture, and then we were going to walk to a class and it’s right next door… and you’re even looking for it [the focus] in that case.”
* “There’s ideas and concepts that have been brought up that I never really thought existed in the schools.., but now being immersed... you get a bigger view of everything.”
* “…when you see it in person, you can finally see exactly what you’re talking about and why we talked about it and why we have to learn it.”

In response to the question, “Are you more reflective now [at the end of the experience]?”, almost all students in all focus groups mentioned the opportunities to debrief and reflect on the experiences immediately after having engaged in them as a very positive aspect of the format. In each focus group, the students made comments that suggested that this is where much of their actual understanding happened. There were many responses to show this, for example:

* “I think that [debrief] was my favorite part…. Because there were so many times when I have been in other field placements where I so desperately wanted to talk about something that happened with the teacher but he/ she was way too busy…”
* “Actually seeing lessons maybe play out and then come back and reflecting on that… I think that helped a lot....being reflective the way this is set up is just such a part of the routine we go through...We come back, we’re reflective, we debrief on it. It was just so fresh ... right when you got back to the classroom, you talked about it at your table ...That’s where it [learning] happened a lot for me.”

In addition to being able to reflect, debrief, and ask questions, students repeatedly reiterated that having a shared set of experiences in which to do so was a main factor in their learning. Several mentioned the benefits of having peers and instructors in the classroom at the same time:

* “You guys [the instructors] were there and you can point things out in this classroom, and be like, ‘did you notice this?’ Which maybe things that slide past us like or… so you had this experience … did you notice… What should we have done?”
* “I used my peers... If somebody was sitting next to me and listening to me work with my kids... they heard everything, I reflected with them... Did you see that,... did I do something wrong, would you do something different?”

Related comments showed that students valued the continuity of the experience. A couple of comments also mentioned that having this continuity also gave them more of a sense of purpose that we would suggest aids in forming a teacher identity.

* “This is a much better opportunity being here every day with the teachers and the students here and having the opportunity to teach and go through an entire assignment with them rather than just putting on the grade and putting it in the folder or watching.”
* “You’re helping this group of students who are behind a lot of times in other field placements. [In this experience,] I’m not just helping, I’m going through a process with them and like getting them to an end goal.”
* “Seeing them every day, it changed everything. We were able to build those experiences.”

One student reported that in a previous placement, the children asked her who she was every week when she came to their classroom. Almost all our students agreed that, because of the immersion experience, the level of their knowing the children and their connections to the children were much deeper. When misbehavior or misunderstandings occurred, students felt they knew better what to do about it because they knew the children. Some responses to the question, “What was your experience in relationships with your students?” were:

* “…where if I were at a normal field, I don’t feel like it would have been my place….because I build that relationship with her, where I know her behavior.”
* “They [children] know when you are trying to manipulate them, when you are just doing things to control them….and don’t genuinely care. She [the child] knew that you genuinely cared for her and that’s why you were trying to….”

Stronger relationships contribute to a sense of community. Many students mentioned this as one of the growth aspects of this experience. In being at the school all day, every day, they got to experience a bit of what it is like to live the life of a teacher in terms of time, schedule, collegial relationships, responsibilities, and interactions. During the immersion sessions, we were able to engage in many experiences that contributed to our students’ understanding of the school climate. We attended faculty meetings and sing-a-longs, ate lunch with the teachers and the students, went to recess, took part in fire drills, and had one-on-one discussions with teachers and principal. We observed routines, including bus arrivals, office routines, dismissal, and daily announcements. These activities were not always planned; they occurred spontaneously as a result of our being present in the schools. In general, we became a part of the fabric of the school. Both teachers and children knew our names and greeted us in the hall. Our university students knew not only the teachers with whom they worked, but also the support staff, custodians, special teachers, and administrators. University students got glimpses of daily activities as well as the behind the scenes preparation necessary to get ready for school. Our students experienced more of a teacher’s life than in a traditional once-a-week field experience. One student put this very powerfully: “You get to see how rewarding it is to be in this community too, you know. It is rewarding. The whole instruction and the teaching part and management part, but you get to see more. You get to see what it’s really like to be here and to see the events they have after school and to see what the teachers do.”

Adding to this, some students mentioned that they felt more like they belonged in the classroom than in previous experiences. Relationships that were developed worked both ways.

* “So I think that they really did like see us as a part of their community…”
* “They [the children] understood that we were here to help them accomplish their goals and help them grow.”

When asked about the relationships that they had developed with the teachers, there were mixed sentiments. Some students who had had previous field placements felt that, in the traditional placements, they had spent more one-on-one time with their mentor teachers and had gotten to know them better personally. This was a consistent negative comment about the immersion format, though it represented a low percentage of the participants. Several students commented that they felt very comfortable with the embedded field teachers. A few mentioned that even though they did not get to speak directly with the teachers every day, they felt they got to know them because they were focusing on the teaching behaviors and discussing them in our debriefing sessions. While they indicated they knew the teachers in the traditional field placements better on a personal level, they felt they “knew” these teachers better professionally due to the facilitated discussions we had after every classroom visit.

Impact on attitudes towards tests and grades in a university class was another interesting idea that came from only one focus group; it just came up in the conversation, and no specific question had been asked about it in the interview questions. They suggested that they did not think so much about the grade they were going to get or feel it was so important to get the grade when they were working and learning things in order to apply them to real situations. Grades did not seem the most important outcome of the course:

 “Because throughout high school you memorize, you get to the test and you’re done. ...,you kind of memorize your stuff until you can pass and then you’re ok. But here, it’s like it doesn’t matter about memorization. It’s whether you get it or not and whether you can apply it to your classroom,... you actually have to understand…”

We also had a focus group session with the four teachers whose classrooms were used every day. Teachers reported that they were also reflective about their own management/ teaching practices since they knew that college students would be observing them every day and “there were little things… that they [university students] might have been picking up on while they were in there.”   All four agreed that the continuity of the experience and having many adults in the room at the same time were positive aspects, on several levels. First, these allowed children to work with mentors in small groups, on difficult skills, every day, which was a growth experience for the children that cannot happen with a ratio of 25 students to 1 teacher. One teacher commented, “I think it took quite a bit off of our shoulders. We attempted something...that we never, ever, ever could’ve even begun to start doing on our own...a hundred times more effective.”

A continuous experience also allowed university students to have ownership of their own learning, to reflect, and have opportunities to try alternatives based on the reflections. As discussed earlier, having purpose was also mentioned by the university students. These things are not usually possible in a once-a-week placement and was also reflected in the students’ comments about seeing things through to the end goals. One of the teachers explained,

“And I really saw the [university] students take ownership with the kids and their learning. I think.., the other [field] experiences, those are really helpful, but they are just that segment and they...feel as connected or responsible for achieving... But you saw, just physically in their faces, how much they wanted these kids to do well on this report or to figure this out or to be able to form a topic sentence. And we just felt like there was a huge buying in….They wanted it to be successful.”

The concluding comments from university students that summed up their experiences were highly positive. Many mentioned that they had a better understanding of what it meant to be a teacher. This is important because of the high rate of attrition in our field. If students understand the job in the beginning stages of preparing, they can make better informed decisions about their futures. This was repeated in various ways many times:

* “...just seeing a teacher everyday makes a difference. I mean like, we can learn about

what it means to be a good teacher, like what you’re told in class… But seeing them…”

* “For me personally, it’s just like, WOW, that’s what being a teacher means.”
* “I felt like a teacher. And that’s what I’m going for, and I want to feel like a teacher instead of just sitting in the back of a classroom for a field experience. I want to be connecting…”

**Findings and Implications**

Reflecting on the emergent themes and how they inform teacher education practice, we note that the benefits of the immersion field experience program include immediacy, continuity, guided reflection, application of course content, sense of community, and university/K-12 connections.

**Immediacy**

There is great benefit to be derived from timely discussion of the field experience. Although this is not always possible, we should, at least, be more aware of the decay that occurs when discussions of issues are not addressed for a week or more. In addition to timeliness, there was greater opportunity for accurate feedback. If we, as university instructors, did not know the reason behind a teacher’s actions, we asked the teacher and reported back to the class. Finally, there was also immediacy in our students’ interactions with the second- and third-grade students. They were aware that each day was building on and reinforcing what they had done the day before and would set the ground for the very next day. This is also an aspect of continuity.

**Continuity**

In traditional field placements, university students are in the classroom for a short time. There is little opportunity for them to see teaching and learning in the way that they actually occur --continuously and flexibly, based on ongoing assessment of the needs and progress of the students. In the embedded, immersed format, university students worked with the same children almost every day and followed a unit from beginning to end. They are able to see learning take place and begin to understand how the teaching and use of assessment data enabled that learning.

**Guided Reflection**

We teach reflective practice in our classes, but we often have little involvement in how that takes place in the field. How much better might it be if we can actually guide students as they engage in the process? Being in the classroom during the field experience enabled us to model our own reflective practice. During debriefing, the discussions were richer because they were based on the experiences we had all shared together.

**Application of Course Content**

An advantage of this experience is easy to overlook--all our students were observing in the same school and the same classrooms. As instructors, we were able to cite examples of the concepts we were teaching using actual examples of how they played out in these particular classrooms. Consequently, the principles of good assessment, classroom management, and other course material were not abstract concepts, they were practical tools of good teaching. The techniques were on display for our students every day.

**Sense of Community**

Our students toldus that,in prior fields, they often felt like an extra person. This trend from almost 25% of the participants shows that sometimes clinical experiences don’t help gain a sense of what it means to be a teacher. By working in classrooms with the same children every day, students were able to build relationships with the pupils. Since building relationships and community in the classroom is a large component of the classroom management and diversity course, this was a direction that we had hoped and expected to come out in the focus groups. Though the university students were only responsible for small groups of children, working with the same group each day for a month led to much deeper relationships, including knowing the abilities and the behaviors of the children. This was reinforced by statements made by the cooperating teachers and could be seen in the way these pre-service teachers moved through the school, talked with the teachers and staff, and, as they described it, became fixtures in the school.

**University/K-12 Connection**

Finally, we also reflected on what the experience meant to us as instructors. We believe that the immersion format gave us opportunities to connect what we teach to real world school, just as it did with our students. It is easy to move away from that when we teach content in isolation, so we felt energized by being able to put it into practice, too. We were also more able to give specific feedback to students and understand more clearly the types of questions they had from observations. We had to be more flexible in our strategies and assessments to fit with what was actually happening at the time, which involved not just covering content, but discussing whatever came up that related. Assessments often referred to actual experiences, and so seemed more authentic in addition to the methods of teaching. We were able to see our content more clearly through the eyes of practicing teachers and therefore, refine our strategies to align with what happens in schools. In general, we also connected and were better instructors because of it.

**Conclusion**

Teaching and learning in an authentic environment was shown to be beneficial for all involved. We helped our partner teachers in educating children while we learned about and connected ideas in course content, reflected on our observations and interactions, saw the continuity lessons, interacted with all staff, and became involved in the culture and community of the school. University instructors also benefited by making new real-world connections with their content, reflecting on goals for the courses, and thinking flexibly. We are aware that courses that are as heavily embedded as these were may not be possible in all settings. We are not generalizing and are not even confident there can be wide-spread transferability; however, we believe our work shows that a closer connection between the university and the school setting provides benefits to our preservice teachers. We advocate for teacher education to move in this direction such that, even if it cannot yet be the norm, it should be a goal and included whenever possible.

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**Reflection vs. Critical Self-Reflection**

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**Abstract**

It is not the intent of this article to provide an implementation model for incorporating critical reflection in a field-based practicum. This article serves as a form of critical reflection for two professors working with teacher candidates (TCs) during their initial practicum. Just as reflection is personal to the individual, so are the reflective practices professors choose to implement in their programs and with different groups of TCs. Due to the limited research of how critical reflection for TCs in practicums is fostered by supervising professors, the purpose of this article is to provide two professors’ stance and beliefs about critical reflection during a practicum and how it impacted the learning opportunities for TCs.

**Developing the Reflective Teacher**

Supervising professors of field-based practicums may understand the importance of reflection by teacher candidates (TCs), but a clear understanding of how to implement the practice of self-reflection in field experiences may not exist. First, professors must have a clear understanding of what critical reflection looks like and then how to effectively implement the practice throughout the practicum. Understanding how to implement critical reflection may be difficult due to the varying perspectives on the topic; simply adding the qualifier ‘critical’ to the term reflection does not result in a deeper level of reflection (Brookfield, 2006). The authors suggest critical reflection is both descriptive and prescriptive and a difference does exist between reflecting and critically reflecting.

Centered on theories provided by Dewey and Schön, reflection is spontaneous and requires common sense. Additional thoughts on reflection provided by Dewey and Schön propose “that reflection is the thinking process that gives coherence to an initially incoherent and unclear situation…experienced by the subject” (Clará, 2015, p. 265). John Dewey (1933), credited with instigating the concept of reflective learning, stressed the importance for teachers to take the time to reflect on observations and experiences as a way to nurture their student’s learning. Schön (1987) argued theory and practice are driven by reflection-in-action and reflection-on-action. Reflection-in-action pertains to the internal dialogue individuals experience while observing or implementing something as they interpret the current situation and make immediate decisions based on personal beliefs. Reflection-on-action also requires an individual to consider personal experiences of the past and reflect on the present experience. Reflection-on-action requires individuals to take reflection a step further by considering future implications. Some researchers (McAlpine & Weston, 2000) refer to the additional step as reflection-for-action. The reflection-for-action is a key component in developing the TC because it allows the candidate to address theory and practice and redefine or confirm their personal beliefs in order to grow professionally. Professors of practicums should provide opportunities for TCs to be active both physically and psychologically (reflection-in-action) through their experiences, but also have the opportunity to reflect in order to discover future professional needs (reflection-for-action).

The expectations and demands of the teaching profession may lead to a routine approach to providing instruction and as a result place the focus on teaching content rather than teaching students. Dewey (1933) considered the act of reflection as a departure from routine behavior; therefore, routine should not be synonymous with reflective practices. The act of critical reflection shifts the focus from a routine of teaching content to analyzing practices and the impact those practices have on student success. Although there may be varying perspectives related to critical reflection, the authors focused on a pragmatic or constructive perspective where “critical reflection is evident when people realize how they are active constructors of their own experience in a world of open possibilities” (Brookfield, 2006, pg.296). Therefore, critical reflection should involve an examination “of ends and a deliberation of the moral and ethical dimensions of education to allow teachers to see the connections between what they do in the classroom and the broader social and political contexts surrounding their work in schools” (Bates, Ramirez, & Drits, 2009, pg.93).

Due to the inconsistency related to the meaning of reflection, the practice of reflection can easily shift from an important aspect for understanding and improving teaching to a pointless assignment to complete. Therefore, reflection can turn into a summary of actions rather than critical analysis of observations and practices. Critical reflection is an inquiry approach that promotes the understanding of how an analysis of a teacher’s instructional practices can lead to continued growth for understanding concepts and practices. A common practice for implementing reflection are journals, much like diaries of observed events, lacking a meaningful analysis that can be provided through the use of critical reflection. “Occasionally the prospective teachers are asked to ‘reflect’ on one particular event during the observation. The problem is when the aspiring teachers present personal response journals of this nature they believe they have actually engaged in reflective thinking” (Hrevnack 2011, p.83). Critical reflection should lead to a change or transformation. Whereas the act of reflection results in a conclusion to a situation, critical reflection is an ongoing process leading to further exploration.

**Benefits of Requiring Critical Reflection**

For most candidates, applying theory to practice is not a natural transition that comes easily due to the differences of what has been taught and what is experienced. The same can be said for instructional coursework prior to practicums because what is learned in the TCs’ classrooms is not always as complex as what is experienced in the practicum. It is the job of the professor to provide guidance that will assist TCs understanding of the importance of reflection and provide opportunities to define or refine their own beliefs, values, and perspectives about teaching in order to enhance their practicum.

**Methods and Support for Critical Reflection**

Throughout the field experience the two professors adjusted their methods for supporting their TCs; the same opportunities to reflect were consistently implemented. As a result, the professors discovered three key points similar to those found in a study conducted by Bates et.al (2009) on the impact of critical reflection during practicums. The three key points include:

(a) an understanding of critical reflection is something that builds over time for TCs through exposure to their professor’s practice;

(b) explicitly modeling, guiding, and communicating the importance of critical reflection in teaching practice through supervisory stance helps TCs develop critically reflective practices and understandings;

(c) developing critical reflection in their individual and shared practices takes time for both parties.

It is important for educators to have the ability to reflect about instruction and classroom management. TCs will benefit from thinking deeply about what they are seeing and experiencing in the field, challenging them to think about an issue from various viewpoints, encouraging them to dig deep for resolutions and clarifications, and learn more profound lessons that would continue with them long after they graduated and moved on to their own classrooms.

“For many TCs, critical reflection does not seem to be a naturally occurring trait or tendency; it needs to be introduced, fostered, reinforced, guided, and so on until the students begin to take responsibility for their reflections themselves and the supervisors slowly progress to more a listener and less a questioner” (Bates, et. al, 2009, p. 99). The professor must understand how to scaffold support, challenging TCs to improve the depth of their reflections, and integrate theory and practice effectively. We do not actually learn from experience as much as we learn from reflecting on experience, turning a subject over in the mind and giving it serious and consecutive consideration, (Dewey, 1933). The quality of the event or stimulus that initiates the reflection may impact the quality of the reflection (Surbeck, Park, and Moyer, 1991). To achieve this goal, professors provided clearly defined student learning outcomes and designed reflection activities to achieve the student learning outcomes.

**Using Guiding Questions to Promote Critical Self-Reflection**

Because this is the TCs’ first experience with critical reflection, it is important to guide them by using an instructional strategy of asking probing questions, and as Wegner (1998) suggest, help them focus on the relationship between theory and practice. This is important because asking thought-provoking questions will more likely help the TCs to discover assumptions that may hinder reflective practice (Brookfield, 2006; Mezirow, 2000). In order to promote ongoing learning, it is vital to teach the TCs to constantly question themselves (Nieto, 1999) by not only identifying questions, but also key elements of a matter viewed as significant, then taking one’s thoughts into an inner dialogue with oneself (Palmer, 1998) and with others. Insight can be gained from this process with reference to (1) additional perspectives, (2) one’s own values, experiences, and beliefs, and (3) the larger context within which the questions are raised. (Jay & Johnson, 2002).

To better achieve critical reflection, constructivist methods of utilizing questions to promote critical-reflection, as opposed to the too often used compulsory ones, combined with theory and practice, are applied to help groom the TCs to be a life-long learner by acknowledging the value of applying critical reflection of their teaching instead of simply being taught (Cochran-Smith & Lytle, 2009). In the end, questions will result in a cognitive change (Yost & Forlenza-Bailey, 2000).

Providing questions for the different methods used to encourage critical reflection was an effective tool to support the TCs. Even with the provision of questions, some TCs’ reflection was merely descriptive in content. while the majority developed a clear understanding of how questions would help guide them to analyze their list of events into a deeper reflection of what had occurred, and the direction needed to move forward.

**Conferences with Peers and Professors**

Two formats were utilized by the professors to provide opportunities for conferencing with professors and peers; weekly lab class meetings and scheduled evaluations. Each week, the TCs and professor met during a lab for the purpose to receive training for field experiences they are encountering as well as to discuss current events. “One method of fostering critically reflective thinking in preservice teachers that has received a lot of attention in the literature recently is discussion or collaboration, which is believed to have potentially trans-formative effects” (Bates, et. al, 2009, pg. 102). With the professor acting as a spectator, this becomes the perfect outlet for the TCs to become facilitators of knowledge by discussing with their peers and analyzing their own experiences.

It is also crucial for the professor to confer with their TCs throughout their field experience to detect the types of intervention essential for shaping mastery, as well as to be vigilant in checking and adapting the intensity of anticipation providing the responses that convince them to get involved in improving the quality of their performance (Henson, 2001a). Professors must review lessons with TCs (Puchner & Taylor, 2006), offer consistent responses to individual goals they have established (Labone, 2004), and help them recognize and translate mastery experiences all while developing self-adjusting abilities through self~~-~~reflection.

When facilitating conferences, it is important to learn about the TCs’ concerns by allowing them the opportunity to talk. This is a shift from the professor being the one to do all of the talking and instead being a listener. The professor should always be the one who facilitates the conference, keeping it focused, yet allowing them to feel comfortable enough to veer off the topic if needed. If conferences veer off topic, the professor decides how to address the topic, whether it needs to be discussed immediately, or put off to another time. It is important to always return to the original topic at hand, never too rigid and intense, which can stifle the intended outcome. The professor should make decisions based on what will help the TC move forward in their ability to reflect.

There are many purposes of conducting individual conferences. For this practicum, the professor plans two observations focused on the TCs’ delivery of their small-group reading lesson and one observation focused on the TCs’ delivery of a whole class lesson. The first of the two small-group observations is the pre-observation conference, which is intended to help set the stage for ensuring the TCs will be successful . During this conference, both the professor and the TC review the previously crafted lesson plan.

To assist the TCs in being autonomist learners, the professor can use questions rather than direct orders to draw attention to areas needing revision. Bartel (2014) cautions that in order for the TCs to have ownership of his/her plan, the professor should suggest modifications only if it is really necessary. He (Bartel, 2001) also encourages “a demonstration is an efficient way to learn what is demonstrated and an inefficient way to teach creativity. Hands-on practice is more creative and an even better way to remember what is learned.” Another proactive step for setting the TC up for success is to help them predict problems that may occur and how they can be handled when they do.

During the pre-observation conference, the professor reviews the formal feedback form that requires both the TC and the professor to reflect on the process of planning and implementation of the lesson. With these forms clearly explained to the TC, he/she will more likely be empowered to meet the expectations and produce a better quality of delivery (Wiggins, 1998) and in turn understand specific target areas to reflect upon.

With expectations in place, the TC is ready to teach his/her lesson. During the observation, the professor should strive to record everything he/she hears and sees. Because the post-observation conference is not held immediately following the lesson, the TC is allowed time to reflect on his/her lesson using the provided questions. At the time of the post-observation conference, both the TC’s reflection and the professor’s observation comments are discussed. It is important for the professor to model critical reflection when needed by directing feedback to the lesson observed, showing support for the TC by offering encouragement, and also setting clear expectations on next steps needing to be taken. Once new expectations have been set in place, the professor needs to sporadically check-in with the TC to see if planned actions have been set into motion and follow-up as necessary.

Conferencing with peers and professors was an important part of the learning and development process for TCs. Without the use of them, professors would not be able to help the TC focus on priority needs, strengths, and concerns unique to him/her. With the use of them, TCs more likely are able to bridge the gap between theory learned throughout semesters prior to field experience and the real-world practice observed and implemented.

**Setting Goals**

“If you don’t know where you’re going, you might not get there,” (Berra, 2001). Though not spoken from an educator, the words hold true when TCs are required to set goals for their students. TCs must first determine the strengths and needs of their students before ever writing a lesson plan. With assessments being an essential tool used to inform instruction (Wren, 2002), the TCs must become assessment literate by administering and analyzing appropriate leveled informal reading assessments. Once completed, the TC disaggregates data and records the targeted objectives; this becomes a reflective piece for the TCs because they are required to project each of their students’ outcomes in measurable terms and gauge their students’ mastery as a result of their teaching and interaction during the 17-week practicum. When the TCs have thoughtfully considered the direction, they need to go with instructing their students, it is then time for them to discuss their plans with their professor who provides additional guidance as necessary.

TCs were required to establish long-term goals for their students after completing pre-assessments and again after completing post assessments, then established short-term goals when planning instruction for the week. By setting goals for their students the TCs began to understand that setting goals for students was also a way to establish goals for the teacher . As a result of this understanding, TCs shifted their practices and reflected more on the impact their actions, or lack thereof, had on the success of the students and their success as a teacher.

**Mentor Teacher Observations**

Often there is a disconnect between what the TC learns about theory and what they observe in the mentor teacher’s classroom. Due to this disconnect, professors must guide the TCs to focus on specific points for further discussion and understanding. From the beginning of the field experience, TCs are encouraged to get acquainted with the learning environment their mentor teachers have established, reflecting on the aspects that affect the classroom environment including the arrangement of the classroom, structure of the daily and weekly schedule, and management/discipline plan. The questions provide a basis for TCs to use when given the opportunity to further analyze and apply their personal opinions regarding what they observe from the classroom observations.

Although TCs have the opportunity to plan for whole class instruction, the majority of their time during the field experience is centered around small-group instruction. The TCs are asked to reflect on what they have observed from their mentor teacher’s practices for establishing a learning environment and in turn convey the optimal learning environment appropriate for their small-group instruction. Prior to establishing a learning environment that is appropriate for small-group instruction, the TCs are asked to reflect upon the climate or culture of the classroom and what was learned from observing the mentor teacher and the students in the classroom. Since this is the first extensive practicum, the opportunity to observe the classroom prior to reflecting on their opinion related to establishing a classroom environment is an important precursor to a critical reflection. TCs reflect informally and formally and the reflections from TCs demonstrate a growth of understanding that shifts from solely relying on theory to applying what is practiced. Beginning reflections typically consist of a regurgitation of preferred theory or a lack of clarity for what is observed and how it will impact instruction. By the end of the semester, TCs’ reflections consist of a deeper understanding that merges what was learned in theory classes, observed in the mentor teacher’s classroom, and practiced by the TC.

**Planning and Implementation of Lessons**

“It is imperative that those who are to become teachers learn to thoughtfully reflect upon their lessons and practices in order to maximize instructional effectiveness” (Hrevnack, 2011, p.82). The professors provided two opportunities to reflect on their lessons, the first occurring prior to implementing their lessons. Although, the professors used different approaches, the TCs were required to reflect on the planning of their lessons prior to submitting them for review by the professor. The lesson plan involved several components essential to preparing a lesson that provided scaffolding support before, during, and after reading a selected text. One professor provided questions for each component of the lesson plan in the form of a checklist for the TCs to use for each lesson plan. During the first few weeks of planning lessons, the majority of the TCs considered the checklist an unnecessary option to use when planning their lessons. After conferencing with peers who used the checklist and conferencing with the professor who used the same questions when the TCs struggled with planning certain components of the plan, the TCs understood the importance of the reflective checklist of questions. As a result, the TCs began to see a difference in their ability to effectively plan a lesson that would make an impact on their students understanding of the different learning objectives.

The TCs were also asked to evaluate their three weekly lessons at the end of each instructional week and choose the one they felt did not go as well planned . To allow them the opportunity to determine whether their lesson was successful in teaching students the lesson objective, the TCs are required to describe the informal assessment and graph the students’ results. By doing so, they are not merely guessing whether or not their students were successful, but instead, using opinionated results and determining if the lesson’s objective needed to be retaught. The other part of the reflection included questions to help the TC think about their actions and the outcome of the implemented lesson. When used effectively in a constructivist approach, critical reflection provides opportunities for teachers to take responsibility for their actions and use informed decision-making that positively affect student success and offer consistent responses to individual goals the TCs have established (Labone, 2004). Typically, the act of mentally reflecting will begin as soon as the lesson is over, if not sooner. It is wise to not immediately draw conclusions, especially if it was not the best of lessons; lessons that do not go accordingly are inevitable. It is important to remind the TCs that reflecting on their mistakes will help them learn at a higher rate when they work through what did and did not work well. The same can be true when reflecting on a lesson that had few to no mistakes. When TCs apply reflection, they should continually examine and evaluate their attitudes, practices, effectiveness, and accomplishments rather than relying on the authority of others (Shandomo, 2010).

Out of all the methods used throughout the semester that required the TCs to reflect, the lesson plan reflections had the greatest impact on the TCs’ critical thinking. Although TCs had opportunities to prepare lesson plans in prior courses, the practicum was the first time the TCs applied the lessons and discovered the impact their planning, or lack thereof, had on the success of their students. They also learned the importance of building on what worked and did not work with prior lessons and the developing needs of their students to better prepare for future instruction. In addition, the TCs learned how to reflect on their ability to effectively teach the learning objective and the necessity of both prior and continued research on their part to become knowledgeable about the lesson topic or skill.

**Critical Reflection Research Paper**

At the conclusion of the practicum, TCs completed a final paper that encompassed reflections completed throughout the semester along with additional opportunities to reflect on their overall experience. TCs were asked to use data collected from formal and informal assessments and observations, along with reflection completed throughout the semester, to reflect on the educational benefits for their students. In addition, TCs were asked to reflect on plans for further instruction for their students based on what they learned through their experiences and assessment results. Finally, TCs wrote a reflection focused on his/her professional growth during the field experience, addressing their understanding of the process for teaching and monitoring student progress, the personal impact of the field experience, and areas of need for professional growth based on their experiences. Some provided an analysis of the field experience within these additional required sections that were indicative of a professional who can reflect on events and the impact of those experiences.

**Professors Final Reflection**

*Professor Reily*

 During my fourth semester working with TCs in their first extensive practicum, I shifted my approach when it came time to guiding my students through the process of self-reflection. I have found that the TCs have become reliant on expressing what they have been told is best practices without understanding the impact those best practices have for their current and future instruction. Most of the TCs are so concerned about doing everything correctly, that they prefer to be told what works rather than interject their own theories about their experiences. In order to help the TC, begin to take a chance on expressing their own thoughts, I had to find a balance between the amount of support I provided with the amount of independent reflection required of the TCs. Some of the assignments that required reflection were new experiences and required more of a guided approach to help the TCs reflect rather than produce a reflection that was simply a step-by-step account of the events that took place. My approach made some TCs uncomfortable and not all of them reached the level of critical reflection. Although I saw each candidate grow as a professional who could reflect on their actions and the actions of others, I did not see the growth from all of the candidates I would have hoped for them to achieve during the semester. By allowing, and in some cases forcing, TCs to think for themselves and reflect in a way that will help them grow as teachers, I know that I have established at the very least an understanding for the purpose reflections play in their role as a teacher. I have discovered that an individual who is reflective, as is the case with other character traits, is dependent on the individual and the time and effort devoted to developing that character trait. I may value and continuously practice critical reflection within my own practices, but that does not mean that others do. Critical reflection will continue to play a major role in practicums, but I move forward with a better understanding that developing the reflective teacher is not a skill that can be taught but rather a process that must be nurtured.

*Professor Vaughn*

 My practicum preservice teachers are not the only ones who benefit from reflecting. As the professor, I have gained a great deal from this experience. Reading the TCs’ reflections provides me with an opportunity to evaluate my own teaching and to find out what worked and what did not work in class. Critical reflecting has enabled me to examine situations that surface in the TCs’ reflections, then be better able to give more personalized attention and direction where needed, and to pose questions to help them focus on relevant matters. These questions often became discussions we tackled during our weekly lab and what I found was this incidental teaching created a springboard for deeper reflecting. What began as longing to be a better professor, I have learned that critical-reflection is based on each experience with my students, colleagues, and my own personal teacher. As Nieto (1999) put it, “all good teaching is about transformation.” For me, it comes from letting go of being overly rigid and being willing to reflect on myself, realizing I have much to learn from my students.

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**Consistency in Student Teacher Evaluations:**

**A Comparison of Cooperating Teachers and Supervisors**

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**abstract**

The aim of this study was to examine the consistency of cooperating teachers’ and supervisors’ ratings on student teacher evaluations and to determine if there were specific areas in which the cooperating teachers rated student teachers more highly than supervisors. Student teaching evaluations completed by both cooperating teachers and supervisors of 701 student teachers were examined. MANOVA analysis determined that cooperating teachers did rate student teachers differently than supervisors, and that the cooperating teachers’ scores were statistically significantly and practically higher in the areas of Lesson Assessment and Diversity. Despite the group differences, both groups tended to give high scores in all categories. The presence of group differences in these categories reinforces the need for greater collaboration and communication between cooperating teachers and educator preparation programs, whereas the prevalence of high scores in both groups reinforces the need for more objective student teacher evaluation processes.

**Key words:** Cooperating teachers, Supervisors, Student teacher evaluation, Teacher Education

**Introduction**

 As the members of the professional community who spend the most time with student teachers, cooperating teachers’ evaluation should be one of the primary indicators of teacher candidates’ preparedness to enter the field (Brucklacher, 1998). This position is supported by the Council for the Accreditation of Educator Preparation's (CAEP) standard for Clinical Partnership and Practice**,** which emphasizes partnerships between educator preparation programs (EPPs) and P-12 schools in all aspects of clinical experiences, including the assessment of teacher candidates (CAEP, 2013, Standard 2). This relatively new expectation raises the question - do current practices reflect a lack of agreement between EPPs and P-12 school partners? To begin answering this question, this study investigated whether cooperating teachers tended to rate the performance of student teachers differently than did supervisors when using the same student teacher evaluation instrument. If so, were there specific categories of the evaluation instrument on which cooperating teachers’ and supervisors’ ratings tended to differ?

**Literature Review**

Student teaching refers to the full-time placement of teacher candidates in P-12 public school classrooms, under the supervision of on-site experienced teachers, most frequently called “cooperating teachers” (Clark, Triggs, & Nielson, 2014). In addition to cooperating teachers, off-site supervisors associated with the EPP visit, observe, and typically evaluate student teachers intermittently (Slick, 1998). The off-site supervisors are also responsible for communicating EPP expectations and policies to cooperating teachers (Veal & Rikard, 1998).

**The Role and Evaluative Tendencies of Cooperating Teachers**

Researchers studying the roles cooperating teachers perform during the student teaching experience have found that the roles of support provider, modeler, and planner are those most readily and frequently assumed (Clark et al., 2014; Koc, 2012; Sanders, Dowson, & Sinclair, 2005). Cooperating teachers were found to provide support and encouragement, demonstrate and model classroom procedures and instructional strategies, and co-plan teaching experiences with student teachers (Clark et al., 2014; Koc, 2012; Sanders et al., 2005). Studies investigating the effect of cooperating teachers on student teachers have found that student teachers were expected to closely mimic the practices, procedures, strategies, and curriculum of their cooperating teachers (Margolis & Doring, 2013; Rozelle & Wilson, 2012; Torrez & Krebs, 2012; Valencia, Martin, Place, & Grossman, 2009). While cooperating teachers’ responsibilities commonly included evaluation; they did not view evaluation as their primary responsibility (Clark et al., 2014; Koc, 2012; Sanders et al., 2005). In fact, cooperating teachers were often uncomfortable giving student teachers written, formal feedback, preferring instead to give informal and generally positive feedback (Clark et al.,2014).

When cooperating teachers did perform formal summative evaluations, the scores appeared to be inflated. Phelps, Schmitz, and Boatright (1986) found cooperating teachers’ Likert-type summative evaluations contained halo and leniency effects, with student teachers rated highly across the board with little or no variation. This remained true even after improvements to the evaluation instrument (Phelps, Schmitz, & Wade, 1986). These studies also found little variability between categories; that is, when cooperating teachers had good impressions of student teachers’ ability in the instructional area, they gave high scores in all categories assessed, regardless of student teachers’ abilities in other areas (Phelps, Schmitz, & Boatright, 1986; Phelps, Schmitz & Wade, 1986). It is unclear whether these tendencies exist for cooperating teachers at all grade levels. Both Phelps et al. studies found that the tendency towards high scores was slightly greater for elementary cooperating teachers, whereas Brucklacher (1998) found that both elementary and high school cooperating teachers gave uniformly high scores.

Various reasons have been suggested for the possible inflation of student teacher evaluation scores on the part of cooperating teachers. The psychometric quality of instruments used to evaluate teaching in general has been criticized (Brucklacher, 1998; Knight et al., 2014), as has an educational paradigm that assumes everyone will get high grades (Brucklacher, 1998; Gargani & Strong, 2014). Young and MacPhail (2015) further suggested that cooperating teachers who were not confident in their own teaching capabilities were reluctant to be critical of student teachers’ performance. Another common opinion among researchers is that cooperating teachers do not receive enough training about their responsibilities in general and about evaluation in particular, and thus cannot be effective evaluators (Raths & Lyman, 2003; Sanders et al., 2005; Torrez & Krebs, 2012; Young & MacPhail, 2015). The idea that lack of training leads to inflated scores is supported by several studies that found training in objective, ongoing assessment decreased score inflation and increased objectivity on the part of cooperating teachers (Clark et al., 2014; Deering, 2011; Gareis & Grant, 2014; Kent, 2001).

In addition to the reasons outlined above, most researchers investigating this area have pointed to the relationship between student teachers and cooperating teachers as the main source of inflated evaluation scores. These researchers have found that cooperating teachers were uncomfortable giving constructive criticism or corrections as it might damage their relationship with the student teachers (Brucklacher, 1998; Raths & Lyman, 2003; Torrez & Krebs, 2012; Young & MacPhail, 2015). Deering (2011) suggested that the dynamic between cooperating teachers and student teachers resulted in cooperating teachers forming allegiances to student teachers, rather than to the EPP or even to the student teachers’ future students. This position is supported by Murray (2013), who reported anecdotal evidence that cooperating teachers reported a "public" evaluation to the EPP in order to help student teachers find a job, whereas their “private” evaluation was used for mentoring and guidance.

**The Role and Evaluative Tendencies of Supervisors**

At the school site, supervisors are outsiders, viewed as evaluators, judges, and gatekeepers (Slick, 1998). As they spend less time with student teachers, supervisors are traditionally thought to represent more distant, objective evaluators (Gareis & Grant, 2014; Kent, 2001). Data presented by Gareis and Grant (2014) as part of a study on the effect of training on student teacher evaluations showed that both trained and untrained cooperating teachers gave student teachers higher overall ratings than did supervisors. Similarly, in a study comparing simultaneous evaluations of student teachers, Ziv, Silverstein, and Tamir (1993) found that scores given by supervisors were statistically significantly lower than those given by cooperating teachers, with no statistically significant difference between the scores of supervisors and the scores of independent observers. These studies support the notion of supervisors as more objective evaluators of student teachers. However, other researchers have called into question the quality of supervisors’ evaluations. Supervisors have been accused of a lack of objectivity in summative evaluations (Deering, 2011), and their ratings have been called unreliable, invalid, and un-predictive of P-12 student success (Sandholtz & Shea, 2012; Strong, Gargani, & Hacifazlioğlu, 2011; Wilson, Floden, & Ferrini-Mundy, 2001).

Reasons that supervisors might inflate student teaching evaluation scores generally echo those proposed for cooperating teachers – an expectation of excelling in the field of education (Raths & Lyman, 2003); poor training (Arends, 2006); and the supportive relationships between supervisors and student teachers (Raths & Lyman, 2003; Slick, 1997; Valencia et al., 2009). Additionally, supervisors tend to be adjunct faculty with little standing at the university who may not feel they have the power to act as true gatekeepers to the teaching profession (Raths & Lyman, 2003), or tenure-track faculty who have had supervisory duties added to an already full-load and do not have the time and energy to engage fully in supervision (Slick, 1998).

It is worth noting at this juncture that many incompetent students are counseled out of teacher education programs before they reach student teaching (Barrett, 1986). Thus, most students placed in student teaching are competent to begin with and should expect strong evaluations, reflecting Arends’ (2006) report that across the United States, 95% of student teachers received a grade of A for student teaching. However, inflated scores remain a cause for concern as student teacher evaluations are a major factor in determining whether student teachers are recommended for certification and ultimately employed (Deering, 2011). Much of the literature suggests that cooperating teachers are subjective evaluators. This may or may not be the case for supervisors. Supervisors appear to be more comfortable with the role of evaluator; however the evidence is mixed in terms of whether they are actually more objective than cooperating teachers during the evaluation process.

To our knowledge, no research in the past 20 years has attempted to directly compare the evaluations of these two groups; instead focusing on the roles of cooperating teachers and supervisors or the quality of student teacher evaluation instruments. Therefore, this study aimed to investigate the consistency of cooperating teachers’ and supervisors’ student teacher evaluations. We asked (1) whether the overall evaluations given by cooperating teachers and supervisors differed when using the same instrument to evaluate the same student teachers and (2) if there were differences within specific categories of the instrument. We hypothesized that cooperating teachers’ and supervisors’ global ratings would differ, with cooperating teachers’ ratings being higher than supervisors’ratings across all categories of the evaluation instrument.

**Method**

This study was conducted at an EPP offering traditional, degree-based, undergraduate programs, as well as certification-only post-baccalaureate graduate programs at a 4-year public university in the southern region of the United States. All of the procedures in this study were part of the EPP’s regular system for evaluating student teachers. All data were collected as part of the EPP’s normal procedures prior to the conception of the study and are thus secondary data.

**Participants**

Participants were 701 student teachers at the EPP from the fall of 2011 through the spring of 2015. Seventy two percent of the student teachers were female and twenty eight percent were male. The ethnic distribution of the student teachers was 71.6% White, 12.8% Hispanic, 5.1% Asian, 4.8% Black/African American, 0.1% Pacific Islander, and 5.3% not specified or missing. The student teachers comprised 73% undergraduate students and 27% graduate students. Of these, 6% completed student teaching in an elementary school classroom, 22% in a middle school classroom, and 72% in a high school classroom.

The evaluations of these student teachers were completed by 46 supervisors and 618 cooperating teachers. The EPP set minimum criteria for cooperating teachers and supervisors across all programs. These criteria for cooperating teachers were that they taught in the same grade and content area as the student teachers’ certification, had three or more years of teaching experience, and had received previous mentor training or been recommended to serve as a cooperating teacher by their principal. Minimum criteria for supervisors were that they held an advanced degree, were certified to teach, and had at least five years teaching experience. Almost all of the supervisors employed during the time period of this study were adjunct faculty who were retired educators; many held principal certifications and some had terminal degrees.

**Instrument and Training**

The Appraisal of Classroom Teaching (ACT) is a rating instrument developed to observe and evaluate student teaching performance in P-12 settings (Dixon-Krauss, Byrd, Ponce, & Bush, 2011, 2012). The ACT was used to evaluate student teachers’ teaching effectiveness at this EPP by both cooperating teachers and supervisors. The instrument contained 42 general pedagogy items classified into seven categories: Lesson Planning, Lesson Delivery, Lesson Assessment, Classroom Management and Engagement, Questioning and Inquiry, Diversity, and General Teaching Skills. The number of items as well as a brief description of the content of each category are displayed in Table 1. All items on the ACT were scored using a 6-point Likert-type scale (1 = unsatisfactory, 2 = needs improvement, 3 = below average, 4 = satisfactory, 5 = above average, and 6 = exceptional). Category scores were calculated by taking the mean score for all items within each category, ranging from 1 to 6.

Preliminary reliability and validity evidence for the ACT was provided by Dixon-Krauss et al. (2011, 2012). The reported inter-rater reliability was strong (96% in agreement), and the Cronbach’s alpha coefficients (Cronbach, 1951) indicated excellent internal consistency for all items (0.97) and for individual scales (ranging from 0.90-0.97) with the exception of 0.56 for the General Teaching Skills scale. In addition, Exploratory Factor Analysis (EFA) was used to inform the factor structure of the instrument. The first six categories of the items – Lesson Planning, Lesson Delivery, Lesson Assessment, Classroom Management and Engagement, Questioning and Inquiry, and Diversity – accounted for 68% of the variance in the scores (Dixon-Krauss et al., 2011). The seventh category, General Teaching Skills, was retained despite these items not loading on a factor, based on an expert panel’s knowledge of best practices indicating that teachers needed to perform well on these items.

 Supervisors at this EPP were trained in the use of the instrument upon first adoption via a four-hour training session in which expectations for each item and rating were discussed by the EPP’s director of clinical practice. This training session concluded with supervisors independently rating the video-taped performance of a student teacher with 96% agreement (Dixon-Krauss et al., 2011). New supervisors hired after the original training met individually with the EPP’s director of clinical practice to receive training. All supervisors underwent an additional three-hour training session prior to the beginning of each semester as a refresher on the ACT and other supervisory responsibilities. Supervisors were responsible for training cooperating teachers with the aid of a Mentor Teacher Handbook and online training modules.

**Observation and Data Collection Procedures**

The student teachers at this EPP were observed teaching by their supervisors four times throughout student teaching, while cooperating teachers observed student teachers each day for 15 consecutive weeks. Both cooperating teachers and supervisors completed the ACT at the end of the student teaching semester as a summative evaluation as part of the requirement for program completion. The ACT instrument was administered through an electronic assessment system, into which both evaluators logged in with unique credentials. Scores on each of the items were then extracted from the electronic assessment system for student teachers meeting the inclusion criteria. Only student teachers who had one supervisor and one cooperating teacher and who had evaluations fully completed by both were included in the study.

**Data Preparation, Analysis, and Results**

Prior to data analysis, data were checked for outliers and statistical assumptions. Because the inclusion criteria specified complete evaluations, there were no missing values. The scores in each category were evaluated for outliers using Tukey’s (1977) boxplot method. Twenty-eight evaluations (4.0%) representing low-end outlier cases were identified and retained given that in all cases, the outliers were within the possible range and deemed to be legitimate scores.

Cronbach’s alpha coefficients (Cronbach, 1951) were used to determine internal reliability of the scales. The Cronbach's alphas for each category were: 0.92 for Lesson Planning, 0.94 for Lesson Delivery, 0.97 for Lesson Assessment, 0.93 for Classroom Management and Engagement, 0.93 for Questioning and Inquiry, 0.95 for Diversity, and 0.84 for General Teaching Skills. As all values were greater than 0.80, the categories displayed excellent internal consistency (scale reliability), justifying the use of the mean score as representative of student teachers’ observed performance within each category (Crano, Brewer, & Lac, 2014).

Statistical procedures of multivariate analysis of variance (MANOVA) were used to test the difference between the two groups of assessor – cooperating teachers and supervisors – across seven dependent variables/outcomes simultaneously. After taking into account the values of skewness (Osborne, 2013) and large sample with equal group sample sizes (Field, 2009) the MANOVA statistical procedures used for data analysis were deemed appropriate for this study.

Descriptive statistics of mean and standard deviation for the seven categories are displayed in Table 2 for both evaluator groups. The mean scores showed a pattern of high scores for both groups though there are differences between the two groups across the categories. Cooperating teachers’ scores were higher than supervisors’ in the categories of Lesson Planning, Lesson Assessment, Questioning and Inquiry, and Diversity. Conversely, cooperating teachers’ scores were lower than supervisors’ in the categories of Lesson Delivery, Classroom Management and Engagement, and General Teaching Skills. Results of data analyses indicated a significant effect of assessors on the overall evaluation of student teachers, V = .22, *F*(7, 1394) = 54.786, *p* < .05. That is, the evaluations conducted by the cooperative teachers and supervisors differ statistically significantly with respect to the seven categories examined. Specifically, statistically significant differences in group means were observed in four categories: Lesson Delivery, *F*(1, 1140) = 8.35, *p* < .01; Lesson Assessment, *F*(1, 1140) = 63.51, *p* < .01; Classroom Management and Engagement, *F*(1, 1140) = 8.00, *p* < 0.01, and Diversity, *F*(1, 1140) = 36.452, *p* < .01. The Lesson Planning, Questioning and Inquiry, and General Teaching Skills categories had no statistically significant differences between the two assessors.

As interpretation based solely on statistical significance testing is notoriously problematic, the *η2* (eta squared) effect sizes were consulted in the interpretation of our results (Henson, 2006). The *η2* for the statistically significant differences were 0.006 for Lesson Delivery, 0.043 for Lesson Assessment, 0.006 for Classroom Management and Engagement, and 0.025 for Diversity. Thus, the effect sizes for the Lesson Delivery and Classroom Management and Engagement categories were so small as to be negligible (Field, 2009). The only two categories for which the differences between cooperating teachers’ ratings and supervisors’ ratings were both statistically significant and of any practical importance were Lesson Assessment and Diversity. In both these categories, the cooperating teachers tended to rate student teachers more highly than supervisors. Based on the modest effect sizes in these categories, 4.3% of the variance in the Lesson Assessment scores and 2.5% of the variance in the Diversity scores could be explained by the evaluators’ role.

**Discussion**

The aim of this study was to investigate if cooperating teachers rated student teachers differently than did supervisors and to examine if there were specific areas of the evaluation in which they tended to differ. In answer to our first research question, we did find that cooperating teachers’ ratings differed from those of supervisors’, consistent with our hypothesis and the work of Ziv et al. (1993). In regard to our second research question there were two categories for which the differences between the two group’s ratings were statistically significantly different (*p* < .05) and of noteworthy effect size. In both, cooperating teachers tended to rate student teachers more highly than supervisors. Thus, our findings partially support Ziv et al.’s findings that cooperating teachers overall rate student teachers more highly than supervisors. However, our results suggest that this trend does not hold true for all of the areas within the instrument of our research. Our findings support our hypothesis and previous findings (Brucklacher, 1998; Phelps, Schmitz, & Boatright, 1986) that cooperating teachers’ scores may not be objective and suffer from inflation, as evidenced by mean scores around 5 (Above Average) in all areas. However, the supervisors in this study also gave high scores across the board, again with all categories having a mean score of about 5. Thus, our findings contradict the view that supervisors are more objective evaluators of student teachers (Ziv et al., 1993) and instead support the assertion that both cooperating teachers and supervisors allow biases to interfere with their objectivity when evaluating student teachers (Strong et al., 2011).

In the literature review section, we introduced factors that might contribute to biases and score inflation among both cooperating teachers and supervisors. Many of these proposed reasons, such as the culture of high grades in the field of education, the supportive relationship between student teachers and evaluators, and the quality of the instrument, could apply to both evaluators in our study. Lack of training in supervisory responsibilities, often cited in the literature, would apply particularly to the cooperating teachers in this study, whose training was left up to the supervisors. This lack of training to make objective judgments may have introduced error into cooperating teacher evaluations, but due to the large number of supervisors involved, it is unlikely to have done so in any systematic way. However, the presence of two categories in which cooperating teachers systematically rated student teachers more highly than supervisors suggests that cooperating teachers might have made deliberate judgments while evaluating Lesson Assessment and Diversity, based on factors discussed below unique to the cooperating teachers’ observation of activities within these categories.

The first factor was that cooperating teachers observed student teachers over the entire semester. Thus, their conception of assessment likely included global summative assessments such as benchmark exams, unit tests, or large projects. It is possible that such summative assessments displayed greater alignment between activities, objectives and state standards than the four individual, likely formative, lesson assessments that supervisors observed, leading to higher scores among cooperating teachers. Furthermore, cooperating teachers had more opportunities to observe responses to student diversity, likely leading to higher scores in these categories as well. A second factor was that the cooperating teachers knew the curriculum as well as the students in the classroom better than the supervisors. Cooperating teachers might have recognized alignment between activities, objectives, state standards, and assessment that supervisors missed. Additionally, knowing both the visible and invisible diversity of the students in their classroom, cooperating teachers might have spotted more and nuanced responses to students’ specific needs that supervisors did not.

A further consideration within the assessment category is that the assessments used by student teachers might have belonged to the cooperating teachers (Valencia et al., 2009), particularly if the cooperating teachers’ idea of assessment included summative assessments. Thus, the higher scores in this category might represent the cooperating teachers’ higher judgment of their own work, rather than the student teachers’ ability to design assessments. Finally, in regards to the diversity category, the cooperating teachers understood the challenge of teaching this particular group of students better than the supervisors. Therefore, they might have had greater appreciation for any responses to student diversity on the part of the student teachers and been less critical of the student teachers’ performance.

 The remaining categories of the instrument contained no practically important differences between cooperating teachers and supervisors, suggesting that the two groups of evaluators did not make systematically different judgments in these categories. Most of these categories – Lesson Delivery, Classroom Management and Engagement, Questioning and Inquiry, General Teaching Skills – focus on prototypical teaching behaviors that are easily observed during the course of lesson delivery. These areas that focus on the visible output of teaching might have been less sensitive to the cooperating teachers’ background knowledge, meaning that the four observations conducted by supervisors were an adequate sample of student teachers’ behavior. The lack of practically important differences in the categories of Lesson Planning was harder to explain; as this area focuses on activities student teachers would engage in outside of supervisors’ observation. However, while supervisors might not have observed the student teachers’ planning, they did view the result of the planning during lesson delivery.

**Limitations and Future Study**

This study had a higher number of participants in the high-school or middle-school settings than those in elementary school settings; therefore, these results should be interpreted with caution when applied to student teachers in the elementary school setting. Future studies could expand the participant pool to include a more equitable distribution of cooperating teachers at each grade level, allowing for comparisons of the evaluation tendencies between cooperating teachers at different grade levels as well as between cooperating teachers and supervisors. Another limitation of this study is the use of the ACT instrument, which does not possess an extensive body of validation evidence. Future research in this area could begin with using independently collected samples and/or replicating the study by Dixon-Krauss et al. (2011) to further confirm the factor structure of the instrument. Additionally, alternative evaluation instruments could be utilized to determine whether the noted differences between the two groups of assessors hold. Future research should also examine if better training cooperating teachers and supervisors to maintain objectivity while implementing objectives-based evaluation would reduce possible score inflation among both groups, as suggested by Gareis and Grant’s (2014) research, as well as whether the differences we have observed in this study would persist after training. Such research would benefit from additional qualitative sources of evidence, allowing for an in-depth exploration of the reasons behind any observed differences. Finally, an additional area of interest is whether the patterns and differences observed here are limited to the summative evaluations included in this study, or if they might also be observed when cooperating teachers and supervisors completed the same formative assessments.

**Conclusion**

This study sought to determine whether cooperating teachers tended to rate the performance of student teachers differently than supervisors, and if there were specific areas in which the cooperating teachers rated the student teachers more highly. To our knowledge this was the first study to test differences between cooperating teachers’ and supervisors’ evaluations across the board as well as within specific categories of an evaluation instrument. Our initial hypotheses were that cooperating teachers’ scores would differ from supervisors’ scores and that the cooperating teachers’ scores would be higher than supervisors’ in all categories. However, we found that while cooperating teachers and supervisors did rate student teachers differently, cooperating teachers’ scores were statistically significantly and modestly higher in only two categories – Assessment and Diversity - and in general, both groups tended to rate the student teachers very highly. Group differences between the scores of supervisors and cooperating teachers in the areas of assessment and responses to student diversity, even in the face of high-scores across the board, suggests that cooperating teachers might have different expectations in these specific areas, different understandings of what these areas assess, or a “better view” of these activities than supervisors have. Our study demonstrates the need to engage our public school partners in the student teaching experience in order to reach consensus and consistency between cooperating teachers and supervisors. However, the ultimate purpose of student teacher evaluation is to ensure competent teachers enter the profession. This study calls into question whether evaluations conducted by either supervisors or cooperating teachers are objective and able to identify effective student teachers. While the tendency towards high scores on student teacher evaluations have been observed before, it must continue to be brought to the attention of the teacher education field. EPPs must develop practices that engage both supervisors and cooperating teachers in an objective evaluation process.

**Table 1**

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| --- |
| *Number of Items and Content Description of Each Category on the ACT* |
|  | Number of Items | Content Evaluated |
| Lesson Planning | 5 | Objectives, alignment of lesson content with objectives and state standards, use of resources, appropriateness of lesson activities |
| Lesson Delivery | 8 | Accuracy of lesson content and communication, emphasizing the value and relevance of lesson content, monitoring students’ understanding and engagement, and providing specific constructive feedback |
| Lesson Assessment | 3 | The alignment between assessment and curriculum objectives, lesson objectives, and lesson activities |
| Classroom Management and Engagement | 8 | Management procedures including reinforcing and re-directing behavior as appropriate, pacing and instructor-student interactions |
| Questioning and Inquiry | 6 | Conveying high expectations; challenging and stimulating students; encouraging participation, critical thinking, and problem solving |
| Diversity | 4 | Differentiation, culturally responsive instruction, and lesson content and materials’ relation to student diversity.  |
| General Teaching Skills | 3 | Technology use, time management, re-teaching  |

**Table 2**

|  |
| --- |
| *Mean and Standard Deviation on Each Category* |
|  | Supervisors | Cooperating Teachers |
| Category | Mean | SD | Mean | SD |
| Lesson Planning | 5.35 | 0.61 | 5.40 | 0.66 |
| Lesson Delivery\* | 5.32 | 0.56 | 5.22 | 0.71 |
| Lesson Assessment\* | 5.16 | 0.69 | 5.46 | 0.70 |
| Classroom Management and Engagement\* | 5.30 | 0.57 | 5.20 | 0.72 |
| Questioning and Inquiry | 5.22 | 0.63 | 5.22 | 0.71 |
| Diversity\* | 4.96 | 0.74 | 5.19 | 0.74 |
| General Teaching Skills | 5.31 | 0.62 | 5.26 | 0.73 |
| *Note.* Mean scores range for 1 to 6. SD = standard deviation. \* = group mean differences significant at *p* *<* .05 level.  |

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**Pre-service Co-Teaching Research:**

**The Continuing Value of Monitoring Student Achievement**

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**Abstract**

This second-year study of the effects of pre-service co-teaching in the same elementary school continues to examine the effects of pre-service co-teaching on student achievement. A mixed-methods study was used to collect and analyze both quantitative and qualitative data to ascertain how an implemented pre-service co-teaching model might influence teaching and learning. Results support the first-year findings and continue to reveal the potential effects and benefits of such a pre-service co-teaching model. Study limitations and implications for future implementation and evaluation are discussed.

**Keywords:** classroom, cooperating teachers, co-teaching, elementary students, pre-service teachers, student teachers, teacher education

Some scholars and practitioners believe that research on pre-service co-teaching has moved beyond a focus on gains for students in the classroom (Guise, Habib, Thiessen, & Robbins, 2017). Others suggest that research on the influence of pre-service teachers on student classroom achievement is still needed (Tygret, 2017). The research described in this paper comes at a time when cooperating teachers (CTs) who work with pre-service teachers are still faced with value-added teacher evaluation models that link teacher performance to student performance on high-stakes tests (Goodnough, Osmond, Dibbon, Glassman, & Stevens, 2009; Zeichner, 2002). Without assurances that pre-service co-teaching will not negatively affect elementary student performance, school administrators and teachers might, quite logically, demonstrate a reluctance to accept student teachers or limit the number of pre-service teachers in each building.

**A Shift in Focus to Effective Instruction**

Traditionally, CTs have perceived their role to be of a practical and technical nature, with a primary focus on effective classroom management and less focus on nurturing pre-service teachers in the nuances of effective instruction (Rajuana, Beijaardb, & Verloop, 2007). Co-teaching, in which teachers share resources and assume joint accountability for student learning (Cook, 2004), provides an opportunity for a mentorship-based approach to the pre-service teaching experience (Kahn, 2001). This mentorship-based approach to teacher preparation can facilitate a focus on the effective instruction that can create a win-win-win for the CT, the pre-service teacher, and the teacher preparation institution (Busman, McCrea, & Schenk, 2013). However, this only works if the data from such a model support classroom gains on the part of the elementary school students involved.

**A Critical Role for the University Supervisor**

To shift from the traditional CT role’s focus on effective classroom management to a mentorship-based approach to co-teaching—with a focus on effective instruction and student achievement—requires hands-on support from university supervisors who are well positioned to provide the required university support (Levine, 2011). This support includes developing and communicating clear expectations for all stakeholders (Graham, 2006), communicating with CTs regarding effective supervision practices (Harwood, Collins, & Sudzina, 2000), and working closely with the principal and the CTs to ensure that active support from principals keeps the program successful and sustainable (Roth & Tobin, 2002). In addition, university supervisors must actively work to ensure that pre-service teachers buy in to the expectation that they will work collaboratively in partnership with a CT to ground the theoretical knowledge of effective instruction they have gained in their coursework prior to actual classroom practice. Classroom participation as a “new teacher” has been shown to be a powerful means of fostering student learning and effective teaching (Fernandez, 2002) and maximizing active engagement with the teacher (Magliaro & Borko, 1986).

**Study Theoretical Framework and Purpose**

In our study, the work of Roth and Tobin (2002) provided a critical, foundational framework for viewing the pre-service teacher as the “new teacher,” rather than the “student teacher” or “prospective teacher.” “New teacher” brings legitimacy to pre-service teaching, whereas traditional student/pre-service teachers are often regarded as novice, or even deficient, teachers whose presence might threaten a high-quality learning environment.

Our purpose was to build upon our previous investigations into whether students’ performance in math and reading in kindergarten through fourth grades differed among those who received services in the co-teaching classroom and those who did not.

**Methodology**

**Research Questions & Hypothesis**

This study was conducted to answer the following question: Does the implementation of the co-teaching model within a pre-service teaching experience increase elementary students’ achievements in math and reading tests? In addition, we attempted to compare results from our co-teaching program intervention with a traditional pre-service teaching method. The primary purpose of this study was to evaluate whether co-teaching is an effective instructional model. Therefore, the following hypothesis was tested: There is no difference in the students’ achievements in math and reading tests for every grade level examined—kindergarten, first, second, third, and fourth grades.

**Participants**

This study was conducted by three faculty members from a college of education at a university in western Michigan and implemented in an area elementary school. The co-teaching program was implemented in kindergarten, first-, second-, third-, and fourth-grade classrooms during the fall and winter semesters of the 2016-2017 academic year.

**Research Design**

We utilized a mixed-methods design. For the quantitative study we used students’ achievement data. For the qualitative study we used classroom teachers’ and pre-service teachers’ data.

**Data Collection and Analyses**

Prior to conducting the research, we obtained university IRB approval, which allowed program implementation and data collection in the targeted school. We also obtained permission from the assistant superintendent of the school district involved to conduct the proposed research and to review students’ achievement scores on the Northwest Evaluation Association (NWEA) assessment measure for academic progress.

 **Quantitative.**  All quantitative data were analyzed using the statistical application SPSS 23 and SAS 9.3 for Windows. Analysis focused on the proportion of students who achieved test norms and the growth for students in grade levels for which all three scores in math and reading (fall, winter, and spring) were available. In addition, our analysis included two types of comparison analyses, both at the 0.05 statistical significance level. We utilized pretest and post-test repeated measures (i.e., paired-samples t-test) to determine the potential increase in student scores and a split-plot ANOVA to compare students’ scores between the two groups.

**Qualitative.** The purpose of the qualitative research was to determine the major benefits and challenges of the co-teaching program and to identify reasons to continue the program during the 2017-2018 academic year. The data collection method utilized was an open-ended survey questionnaire. CTs and pre-service teachers participated in the survey.

**Results**

 **Quantitative**. A paired-samples t-test was conducted to assess improvement in students’ scores on the NWEA test in 2016-2017. The analysis showed a statistically significant increase in students’ test scores from fall to winter, in math and reading, for every grade level (See Tables 1, 2, 3, 4 and 5 for summaries of the paired sample t-tests for each grade level in the subject areas).

The mixed between-within subject analysis revealed that whether students were in a co-teaching or traditional classroom, there was an overall a statistical nonsignificant difference in students’ performances on NWEA math and reading for every grade level. For first grade, however, data showed a significant difference in students’ performance in math in the 2017 academic year.

Analysis also revealed that a higher proportion of students who received services in co-teaching classrooms achieved the test norm than students in traditional classrooms. A higher proportion of kindergarten students achieved the norm in the math and reading tests. First-grade through fourth-grade students followed the same pattern in reading, but not in math for third and fourth grades (see tables 6, 7, and 8).

 **Qualitative.** Qualitative results revealed that co-teaching helped reach students at their instructional level. For example, CTs mentioned, “We are often able to work one-on-one with students.” Pre-service teachers also reported that they were able to work on “smaller group sizes and more one-on-one.” CTs mentioned that co-teaching built collaborative environments where “two brains are reflecting, solving problems, and [utilizing a variety] of resources.”

 The more traditional view of teacher preparation was also supported. In the areas of classroom discipline, CTs mentioned that the presence of pre-service teachers helped solve behavioral issues. For example, “We do lesson planning together as well as manage the classroom together.” Pre-service teachers stated that “the students get twice the attention.” This result aligns with the quantitative findings, which showed that co-teaching provided the opportunity for more students to achieve the performance norms. In addition, pre-service teachers felt that they gained experience for their future career.

 The qualitative results also revealed challenges for the co-teaching program. About 50% of the CTs reported that they needed more time to go through the lesson with the pre-service teacher. Others reported an issue regarding conflict management and the lack of clearly defined roles for the co-teachers.

 Ultimately, both CTs and pre-service teachers recommended that the co-teaching program continue in the upcoming school year. They noted that the program provided opportunities for many students to achieve learning goals; the model supported elementary students’ individual needs and helped prepare pre-service teachers for their future career. Both a CT and a pre-service teacher explicitly wrote, “I love the co-teaching program.”

**Discussion**

 The primary purpose of this study was to evaluate whether co-teaching is an effective instructional model.  Finding supported the hypothesis that there was no difference in the students’ achievements in math and reading tests for every grade level examined—kindergarten, first, second, third, and fourth grades. Although there was not a significant difference between classrooms with co-teaching and classrooms with traditional pre-service teaching, all grade levels assessed reported significant gains during the school year.

 These results from this 2nd year of co-teaching research at the same school confirm our first year findings that pre-service co-teaching does not negatively affect student performance. In fact, in some classrooms there seems to be a slight performance advantage in classrooms using the co-teaching model.

 Thus, rather than administrators and teachers demonstrating a reluctance to accept student teachers or limit the number of pre-service teachers in each building, quite the opposite has occurred. Administrators and teachers continue to be willing to participate in the pre-service co-teaching program.

 In addition to looking at co-teaching as an effective instructional model, we were also interested to see if the mentorship-based approach used in our co-teaching model would lead to an increased focus on effective instruction rather than a more traditional focus on classroom management and discipline.  This appeared to the case as teachers commented on increased one-on-one time with students; smaller group sizes and collaborative environments typified by reflecting and solving problems.

 In year three of this study, through a grant funded partnership with a major state university, we will be able to study how the expert-novice distinction translates to shared professional development between the CT and the pre-service teacher.

 Challenges with the study continued in year two. Because the CTs and pre-service teachers voluntarily participated, they may have held positive views about the potential of co-teaching models.  These positive views, in turn, may have influenced their instruction in the classrooms.

 An experimental or quasi-experimental design would be needed to truly test the effects of co-teaching.  Finally, an ideal design would include current comparison/experimental classrooms to control for current events, curricula, and the professional development experiences of the teachers.

**Conclusion**

The results of this study revealed that student academic achievement increased in both co-teaching and non-co-teaching classrooms. These results provided sufficient motivation for the principal and teachers to agree to participate in co-teaching again during the 2017-18 school year. Pre-service teachers have continued to volunteer for the project, and it has been a success in the view of all stakeholders. During the 2017-2018 academic year, we have continued to add classrooms and pre-service teachers and collect data. Expansion to other schools is being considered.

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**Table 1**

*Summary of Paired Samples T-Test for Kindergarten Students in Experimental Group*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Subject | N | Fall Mean | Winter Mean  | Mean Diff | SD Mean Diff | t-value | *df* | Sig-(2-tailed) |
| Math | 39 | 136.41 | 145.51 | 9.103 | 8.394 | 6.772 | 38 | .000 |
| Reading | 39 | 139.08 | 146.92 | 7.846 | 7.286 | 6.725 | 38 | .000 |

**Table 2**

*Summary of Paired Samples T-Test for First-Grade Students in Experimental Group*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Subject | N | Fall Mean | Winter Mean  | Mean Diff | SD Mean Diff | t-value | *df* | Sig-(2-tailed) |
| Math | 55 | 154.890 | 168.730 | 13.836 | 7.110 | 14.433 | 54 | .000 |
| Reading | 55 | 155.640 | 165.220 | 9.582 | 6.208 | 11.446 | 54 | .000 |

**Table 3**

*Summary of Paired Samples T-Test for Second-Grade Students in Experimental Group*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Subject | N | Fall Mean | Winter Mean  | Mean Diff | SD Mean Diff | t-value | *df* | Sig-(2-tailed) |
| Math | 69 | 173.435 | 184.116 | 10.681 | 6.223 | 14.258 | 68 | .000 |
| Reading | 69 | 170.797 | 181.145 | 10.348 | 9.027 | 9.522 | 68 | .000 |

**Table 4**

*Summary of Paired Samples T-Test for Third-Grade Students in Experimental Group*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Subject | N | Fall Mean | Winter Mean  | Mean Diff | SD Mean Diff | t-value | *df* | Sig-(2-tailed) |
| Math | 37 | 189.973 | 195.432 | 5.459 | 0.809 | 6.751 | 36 | .000 |
| Reading | 38 | 186.263 | 191.421 | 5.158 | 1.676 | 3.078 | 37 | .004 |

**Table 5**

*Summary of Paired Samples T-Test for Fourth-Grade Students in Experimental Group*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Subject | N | Fall Mean | Winter Mean  | Mean Diff | SD Mean Diff | t-value | *df* | Sig-(2-tailed) |
| Math | 18 | 197.722 | 201.722 | 4.000 | 7.079 | 2.397 | 17 | .028 |
| Reading | 18 | 193.667 | 202.111 | 8.444 | 7.571 | 4.732 | 17 | .000 |

**Table 6**

*Summary of Mixed Between-Within Subjects for All Grade Levels*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Grade Level | Groups | Year | Fall Mean  | Winter Mean  | Spring Mean | Fall SD | Winter SD | Spring SD | n |
| Kindergarten Math  | Comparison  | 2015 | 138.5 | 148.69 | \* | 11.9 | 13.34 | \* | 80 |
| Treatment  | 2017 | 136.41 | 145.51 | \* | 10.09 | 13.23 | \* | 39 |
| Kindergarten Reading  | Comparison | 2015 | 140.58 | 147.83 | \* | 10.03 | 10.92 | \* | 80 |
| Treatment | 2017 | 139.08 | 146.92 | \* | 7.38 | 9.380 | \* | 39 |
| First-Grade Math  | Comparison | 2015 | 162.00 | 171.67 | 186.75 | 12.13 | 12.941 | 12.75 | 48 |
| Treatment | 2016 | 160.13 | 171.31 | 185.34 | 15.92 | 16.99 | 18.35 | 64 |
| First-Grade Reading  | Comparison | 2015 | 158.21 | 167.15 | 180.15 | 10.12 | 11.03 | 9.27 | 48 |
| Treatment | 2016 | 157.64 | 168.06 | 179.92 | 11.46 | 13.36 | 13.13 | 64 |
| First-Grade Math  | Comparison | 2015 | 162.00 | 171.67 | \* | 12.13 | 12.94 | \* | 48 |
| Treatment | 2017 | 154.89 | 168.73 | \* | 11.96 | 11.60 | \* | 55 |
| First-Grade Reading  | Comparison | 2015 | 158.21 | 167.15 | \* | 10.12 | 11.03 | \* | 48 |
| Treatment | 2017 | 155.64 | 165.22 | \* | 10.65 | 10.95 | \* | 55 |
| Second-Grade Math  | Comparison | 2015 | 170.47 | 181.60 | 190.92 | 12.38 | 11.04 | 11.23 | 73 |
| Treatment | 2016 | 176.49 | 187.12 | 196.71 | 11.28 | 8.54 | 8.12 | 49 |
| Second-Grade Reading | Comparison | 2015 | 167.88 | 180.82 | 191.01 | 15.90 | 16.13 | 12.81 | 73 |
| Treatment | 2016 | 170.86 | 184.90 | 196.69 | 12.92 | 11.48 | 9.86 | 49 |
| Second-Grade Math  | Comparison | 2015 | 170.42 | 181.53 | \* | 12.37 | 10.82 | \* | 77 |
| Treatment | 2017 | 173.43 | 184.12 | \* | 14.31 | 13.52 | \* | 69 |
| Second-Grade Reading  | Comparison | 2015 | 167.51 | 180.10 | \* | 16.11 | 16.10 | \* | 77 |
| Treatment | 2017 | 170.80 | 181.14 | \* | 16.14 | 16.07 | \* | 69 |
| Third-Grade Math | Comparison | 2017 | 187.84 | 195.16 | \* | 12.23 | 9.05 | \* | 19 |
| Treatment | 2017 | 189.97 | 195.43 | \* | 9.89 | 9.74 | \* | 37 |
| Third-Grade Reading | Comparison | 2017 | 186.32 | 188.37 | \* | 11.91 | 11.98 | \* | 19 |
| Treatment | 2017 | 186.26 | 191.42 | \* | 12.00 | 14.14 | \* | 38 |
| Fourth Grade Math  | Comparison | 2017 | 197.13 | 203.06 | \* | 12.08 | 12.08 | \* | 63 |
| Treatment | 2017 | 197.72 | 201.72 | \* | 10.60 | 13.17 | \* | 18 |
| Fourth-Grade Reading | Comparison | 2017 | 196.05 | 203.16 | \* | 14.94 | 13.66 | \* | 62 |
| Treatment  | 2017 | 193.67 | 202.11 | \* | 18.45 | 14.75 | \* | 18 |

*(\*) = No Data*

**Table 7**

*Summary of Within-Subjects Performance for All Grade Levels*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Grade Level | Effect Pre-Post Test | Year  | Wilks’ Lambda | F | df | Error df | P | Partial Eta Squared  |
| Kindergarten  | Math  | 2015 vs. 2017 | 0.996 | 0.442 | 1 | 117.000 | 0.508 | 0.004 |
| Reading | 2015 vs. 2017  | 0.996 | 0.169 | 1 | 117.000 | 0.682 | 0.001 |
| First | Math  | 2015 vs. 2016  | 0.984 | 0.582 | 2 | 109.000 | 0.560 | 0.005 |
| Reading | 2016 vs. 2016 | 0.985 | 0.712 | 2 | 109.000 | 0.492 | 0.006 |
| Math  | 2015 vs. 2017 | 0.913 | 9.572 | 1 | 101.000 | 0.003\* | 0.087 |
| Reading  | 2015 vs. 2017 | 0.998 | 0.241 | 1 | 101.000 | 0.624 | 0.002 |
| Second  | Math  | 2015 vs. 2016  | 0.998 | 0.077 | 2 | 119.000 | 0.926 | 0.001 |
| Reading  | 2015 vs. 2016 | 0.985 | 1.145 | 2 | 119.000 | 0.320 | 0.009 |
| Math  | 2015 vs. 2017 | 0.999 | 0.175 | 1 | 144.000 | 0.677 | 0.001 |
| Reading  | 2015 vs. 2017  | 0.985 | 2.209 | 1 | 144.000 | 0.139 | 0.015 |
| Third | Math  | 2017 vs. 2017 | 0.971 | 1.634 | 1 | 54.000 | 0.207 | 0.029 |
| Reading | 2017 vs. 2017 | 0.977 | 1.289 | 1 | 55.000 | 0.261 | 0.023 |
| Fourth  | Math  | 2017 vs. 2017 | 0.981 | 1.539 | 1 | 78.000 | 0.219 | 0.019 |
| Reading | 2017 vs. 2017 | 0.995 | 0.391 | 1 | 78.000 | 0.534 | 0.005 |

(\*) *Significant at a= 0.05*

**Table 8**

*Summary of Between-Subjects Performance for All Grade Levels*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Grade Level | Subject | Year  | df | F | P | Partial Eta Squared  |
| Kindergarten  | Math  | 2017 | 1 | 1.371 | 0.244 | 0.012 |
| Reading | 2017  | 1 | 0.451 | 0.503 | 0.004 |
| First | Math  | 2016  | 1 | 0.186 | 0.667 | 0.002 |
| Reading | 2016 | 1 | 0.000 | 0.984 | 0.000 |
| Math  | 2017 | 1 | 4.766 | 0.031\* | 0.045 |
| Reading  | 2017 | 1 | 1.254 | 0.266 | 0.012 |
| Second  | Math  | 2016  | 1 | 9.843 | 0.002\* | 0.076 |
| Reading  | 2016 | 1 | 3.372 | 0.069 | 0.027 |
| Math  | 2017 | 1 | 1.869 | .0174 | 0.013 |
| Reading  | 2017  | 1 | 0.716 | 0.399 | 0.005 |
| Third | Math  | 2017 | 1 | 0.189 | 0.666 | 0.003 |
| Reading | 2017 | 1 | 0.194 | 0.662 | 0.004 |
| Fourth  | Math  | 2017  | 1 | 0.014 | 0.905 | 0.000 |
| Reading | 2017 | 1 | 0.200 | .0656 | 0.003 |

(\*) *Significant at a= 0.05*

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