A Connected Space for Early Experiential Learning in Teacher Education

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**Abstract**

Carefully constructed field-based experiences in teacher education programs have been recognized as one of the essential conditions for effective teacher learning. Most college/university-based teacher education programs, however, are still dominated by the epistemology that academic knowledge is the authoritative source of knowledge about teaching, while spaces outside the college classroom remain the “practice fields.” This study examined Project CONNECT (PC), an after-school program designed to create early experiential learning opportunities for pre-service teachers (PSTs) by bringing together different aspects of expertise from the schools, communities, and universities. Pre-service teachers in this study worked with children one afternoon a week in school-based sites during their sophomore and junior years. Case study was adopted to assess the impact of the experience on teacher learning and the factors contributing to the effect. Multiple data sources, including weekly reflection journals, field observation notes, and an exit survey were collected and analyzed. Results revealed participants’ transformation of professional identity, and development of professional skills and dispositions. Several factors emerged as important to PSTs’ learning throughout the experience, including connections between the course and the program, quality of faculty supervision, and systematic reflection. Implications for teacher education were discussed.

**Keywords**

experiential learning, after-school program, early field experience, pre-service teacher education, clinical practice

**Introduction**

The concept of experiential learning can be traced back to about a century ago, if not earlier, when Dewey (1938) proposed that the process of actual experience and education are intimately and necessarily related with each other. Carefully-constructed field-based experiences that are well-supervised and linked to course work throughout entire teacher education programs have been recognized as one of the essential conditions for effective teacher learning (Darling-Hammond, 2010). However, according to Zeichner (2010), even though most current ____________________________

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university-based teacher education programs have integrated multiple field experiences over the length of the program, the disconnect between campus and field-based teacher education continues to exist. Most college/university-based teacher education programs are still dominated by the epistemology that academic knowledge is the authoritative source of knowledge about teaching. Colleges and universities continue to maintain hegemony over the construction and dissemination of knowledge, and spaces outside the college classroom remain the “practice fields” (Barab & Duffy, as cited in Zeichner, 2010, p. 90) where pre-service teachers (PSTs) are to try out the practices provided by the university. This divide between the campus and field-based components significantly impacts the effectiveness of field experiences in teacher education.

This study aims to contribute to the developing body of knowledge about and the practice of early field experience in teacher education by examining Project CONNECT (PC), an after-school program designed to create early experiential learning opportunities for PSTs, by bringing together expertise from the schools, the community, and the university. The purpose of the study was to assess what impact PC has had on PSTs and what factors contributed to such effect.

Concept of Experiential Learning and Field Experience in Teacher Education

Experiential learning is defined as “the process whereby knowledge is created through the transformation of experience” (Kolb, 1984, p.38). It is a process where learners are engaged intellectually, emotionally, socially, politically, spiritually, and physically in an uncertain environment where the learner may experience success, failure, adventure, and risk taking (Itin, 1997). Experiential learning is also understood as a philosophy of education concerned with learning from direct first-person experience and a holistic perspective that goes beyond content to include the construction of knowledge, attitudes, beliefs, and transfer of learning (Marlow & McLain, 2011). According to Kolb (1984), the cyclical model of experiential learning contains concrete experience, reflective observation, abstract conceptualization, and active experimentation.

This study used Dewey’s conception of experience and reflective learning (as cited in Miettinen, 2010) as its framework. Dewey suggested that experience can either sustain the traditional or habitual ways of thinking and action, or liberate people from laziness, conformism, and dependence on authority. A primary experience was defined as, “material interaction with the physical and social environment.” while secondary experience was defined as, “a reflective experience that makes the environment as objects of reflection and knowledge” (p. 65). If the primary experience is uncertain or fails, it will generate reflective thinking and learning. In the center of this concept is whether authority-bound and routine ways of thinking and action can be replaced by reconstructive and reflective thinking.

Reflective experience includes the phases of 1) the indeterminate situation: the habit does not work; 2) intellectualization: defining the problem; 3) studying the conditions of the situation and formation of a working hypothesis; 4) reasoning- in a narrower sense; and 5) testing the hypothesis by action. “There is no reflective learning for Dewey outside problem, hypothesis and its testing in practice” (Miettinen, 2010, p. 67).

In addition, the study draws from recent findings about effective field experience in teacher education. According to Darling-
Hammond (2010), systematic reflection and opportunities to retry and improve were two common features of powerful clinical curriculum of several exemplary teacher education programs. Other common features of effective field experience included extensive time in the field throughout the program; field experience tightly integrated with course work; intensive supervision; expert modeling of practice; and diverse students. Several other researchers found factors that negatively influenced the field experiences included the divide between the theoretically based knowledge taught in university classrooms and experience-based knowledge in the schools (Darling-Hammond, 2010); lack of incentive, resources and support for tenure-track faculty to coordinate clinical programs or supervise students (Labaree, 2004); disconnect between non-tenure clinical faculty and the campus-based portions of the teacher education program (Bullough, Drapger, Smith, & Burrell, 2004); lack of preparation and support cooperating teachers need to successfully mentor student teachers (Carrol, 2007; Margolis, 2007; Valencia, Martin, Place, & Grossman, 2009); and dominant thinking about the role of field experiences as practice field in teacher education (Barab & Duffy, 2000). In order to make field experience more effective, Zeichner (2010) called for a shift of epistemology and suggested creating third spaces that would bring together school and university-based teacher educators and community expertise in less hierarchical ways to create transformational learning opportunities for PSTs. Zimpher and Howey (2013) urged universities to establish “Centers of Pedagogy,” which were “university-based hubs devoted to supporting all practices and innovations, laboratory and clinical, necessary for creating high-quality teachers” (p.409).

Dewey’s conception of experiential learning, and recent findings regarding field-based teacher education provided a comprehensive framework to examine the after-school program as an early field experience. It is important to keep in mind that simply placing PSTs in a field-based context does not guarantee opportunity for experiential learning. An experience is non-reflective if it does not include problem, forming a hypothesis and testing it in practice, or if the campus-field disconnect remains.

**After-school Programs Involving Pre-service Teachers**

In this study, the term after-school program is used to refer to programs which begin when the regular school day ends to serve children who attend that school. Such a program can be housed in a school, a community organization, or university. There is an abundance of research literature about after-school programs in the United States. Due to the nature of the current study, only programs involving the participation of PSTs were reviewed.

Research found that participating in an after-school program, either as a required component of an education course or on volunteer basis, had a positive impact on PSTs’ professional abilities. After participating in the programs, PSTs experienced increased teacher efficacy toward teaching science (Cone, 2009) and reading (Banks, Dunston, & Foley, 2013), and reported better understanding of reflective experience (Kalchman, 2015). Katz and colleagues (Katz, McGinnis, Hestness, Riedinger, Marbach-Ad, Dai, & Pease, 2011) found that voluntary participation in after-school programs that were not connected to a specific coursework brought positive changes in PSTs’ attitudes and beliefs about science, as well as to their professional identities. It helped them to shift away from didactic, lecture-based teaching and begin to recognize the importance of incorporating hands-on, inquiry-based, and
collaborative activities in science instruction. However, in other programs, PSTs struggled with giving up control and not giving the answers when implementing inquiry instruction (Cartwright, 2012). Birggs and McHenry (2013) noticed that working in the community setting helped PSTs realize that teaching was not just a transmission of information but a moral act of compassion and understanding. They also developed skills to cope with children’s frustrations.

Participation in after-school programs that serve children from culturally and linguistically diverse communities provided the opportunity for PSTs to develop their own multicultural competencies. In Cone’s (2012) study, participants expanded their simplistic perception of diversity and began to see it as a resource to be utilized for teaching. Kalchman (2015) discovered that PSTs gained better understanding of the children in urban settings, and came to recognize both needs and strengths of these children. Tinkler and Tinkler (2013) found that weekly interaction with children from diverse cultural backgrounds helped PSTs see themselves as other, become aware of the imperative of the other, and move toward social justice. Similarly, Fitts and Gross, (2012) noticed that PSTs who participated in tutoring bilingual children gained a better understanding of basic concepts related to second language acquisition, more positive attitudes towards bilingualism, an appreciation for children’s linguistic capital, and more nuanced understandings of bi-cultural identities and the funds of knowledge.

Of the above-mentioned after-school programs, those connected to a specific course were more structured than programs that were not. Most of these programs offered substantial and recurring experiences of planning, teaching, and reflecting. In many cases, course instructors served as field supervisors who mentored the participants and provided regular feedback that inspired reflection and growth (Banks, Dunston, & Foley, 2013; Cone, 2009, 2012; Kalchman, 2015; Tinkler & Tinkler, 2013). Effective characteristics of the after-school programs in diverse settings included scaffolding critical reflection through questions and conversations, modeling and explicit discussion of culturally responsive pedagogy, and extensive one-on-one interaction with children (Bennett, 2012). In addition, according to Tinkler and Tinkler (2013), PSTs’ attitude was found to mediate the impact of their experience with an after-school program. Some PSTs who began the course with openness to diversity further broadened their understanding of these topics and ideas. Other PSTs who were less open acquired some awareness that understanding and addressing diversity was important to their continued growth as future teachers. Pre-service teachers who expressed negative feelings toward the experience felt they did not learn much from the field experience. Several researchers (Fitts & Gross, 2012; Tilley-Lubbs & Kreye, 2013) found that coherence and connection between the after-school programs and coursework also contributed to PSTs’ experiences. Fitts and Gross (2012) noted that the field experience developed to provide opportunity for working with ELLs did not prepare PSTs for success when it was situated in a general survey course or a research class. They suggested that PSTs would have benefitted more if the experience had been connected to a method courses.

One of the challenges reported about these after-school programs was time. Briggs and Mchenry (2013) found that time restraints prevented a critical, reflective dialogue about race and privilege to be held during the process of a voluntary participation in an after-school program in a low-income neighborhood. Because PSTs who volunteered in the program did not meet regularly within one class, and the
researchers did not have sufficient time to engage PSTs in more discussion about race and privilege, the outcome of the experience relied significantly on individual participants’ exposure to multicultural issues. Pre-service teachers who took university classes that interrogated these topics while volunteering in the after-school program were more reflective, while others were only able to work with children in a more holistic atmosphere without interrupting their own white privilege. Tilley-Lubbs and Kreye (2013) noticed that time constraint also challenged faculty supervisors collaborating across disciplinary areas in after-school programs. It took more time to plan and provide feedback when faculty collaborated with each other than if the task was done individually. In addition, participants’ class schedules were different enough to make it hard to schedule out-of-class meetings for co-planning.

The literature offers valuable information about the impact of after-school programs, the factors related to the influence, and the challenges. However, most of the after-school programs in the related literature were created as a community or service learning project through personal connection with schools and communities. It is not clear how similar or different the impact of a structured after-school program established by the collaborative efforts of university, schools and local community would be. This study will assess such a program. This study explored the following questions: 1) What impact does the after-school program have on PSTs, and 2) what characteristics contribute to the impact of the program.

Project CONNECT: The After-school Program

Project CONNECT is an after-school program under a five-year contract between the university teacher education program and a local school district starting in 2012. Its goal is to provide PSTs early field experience through offering service to children in the local community in an after-school setting. It runs for two and a half hours every day after school ends from 2:30 pm to 5:00 pm. The program takes place in three elementary buildings of a small-city school district in New York State. According to New York State Education Department data (NYSED, n.d.), in 2013-14 school year, 89% of the K-12 public school students enrolled in this school district were White, 7% were Black or African American, 3% were Asian or Native Hawaiian/Other Pacific Islander, 0.5% were American Indian or Alaska Native, 0.4% were Hispanic or Latino, and 0.3% were multiracial. In addition, 20% students were classified as students with disabilities, about 1% were English language learners, and 53% were economically disadvantaged.

According to the materials published at the university website, the teacher education program in this study is a nationally accredited program “designed to prepare competent, qualified, and caring teachers for tomorrow’s schools”. The program’s, focus is on knowledge of content, knowledge of pedagogy, and professional skills. The professional education faculty has developed a body of agreed-upon common themes, to serve as a framework for the design of various degree offerings. These themes include content in context, learning environments, technology, assessment, critical thinking and problem solving, recursive learning, collaboration, modeling, and multicultural competencies.

Pre-service teachers participating in PC are enrolled in the 4-year Grades 1-6 Childhood Education Program or the 5-year Grades 1-6 Special & Childhood Education Program. All education courses in the programs require certain hours of early field experiences prior to student teaching beginning in year one. Project CONNECT is one of the early field experiences.
When it first began in 2012, the PSTs participating in the current study were sophomores. When the PSTs register in an education course, they also register for PC, a non-credit lab requirement, in which they work with children for the equivalent of two and half hours one day a week throughout the semester.

The daily structure of PC consists of a short outdoor or gym activity, snack break, adult-supervised home work time, a responsive classroom afternoon meeting, an inquiry-based activity, and finally, a choice time with options of gym/outdoor activities, reading, or board games. All PSTs in PC work with a group of approximately 10 children, individually or in collaboration with peers. Pre-service teachers in their first year of training are engaged in observing and assisting the second- or third-year PSTs; those in their second year of training co-plan and co-facilitate activities with their peers; and those in their junior year of training work with children independently and/or mentor a first- or second-year PST.

At the time of this study, Project CONNECT is staffed by a full-time coordinator and three part-time site directors. The coordinator and site directors are certified school teachers, all with a master’s degree in education. In addition to managing the program and communicating with parents on daily basis, the coordinator and site directors are expected to support PSTs by modeling, mentoring, and intervening when necessary. Pre-service teachers’ course instructors serve as their faculty supervisors in PC.

**Method**

This study chose to examine PC located in one of the three sites. Case study was selected as the research method because PC satisfied the criteria for case study. According to Stake (as cited in Merriam, 2002), case study is “a choice of what is to be studied... a bounded system, a single entity, a unit around which there are boundaries” (p.178). Project CONNECT is such a system, which has boundaries of time (e.g., after school days), space (e.g., location) and components (e.g., number of participants) (Merriam, 2002). The site examined in the current study was situated in a K-5 elementary school building of a small school district in the State of New York. At the time of the study, the after-school program in this particular site was serving 86 children.

**Participants**

Forty-one (41) PSTs who were enrolled in the two sessions of an integrated elementary methods course participated in PC at this site throughout their junior year. Among these PSTs, three were male, 38 were female; 39 were white, one was Caribbean, and one was Asian American, adopted and raised by white parents. As junior-year education students, these PSTs had the responsibility to plan their day of PC, including an afternoon meeting, an inquiry-based activity matching the grade-level standards, and other entertaining activities for the “choice time” at the end of the day. Lesson plans were due a week before they worked in PC to allow time for feedback and revision. The PSTs were also required to keep a weekly reflection journal of their experience in PC. The guidelines below were provided to support PSTs’ reflection:

1) Describe what you did today in PC and what your students do.
2) What worked? How do you know it worked? Why do you think it worked?
3) What did not work? How do you know it didn’t work? Why do you think it didn’t work?
4) What changes would you make if you have opportunity to do it “next time”? Why?
5) How did your planning support your teaching? Did you need to make any adjustments during your teaching? Why or why not?

Data Collection and Analysis

Data were collected from three sources: 1) field experience reflections collected by course instructors weekly during the participants’ junior year; 2) an exit survey at the end of the participants’ junior year administered by the assessment manager of the department; and 3) field notes of observation taken by course instructors. In the survey, PSTs were asked to describe their experience in PC and respond to several open-ended questions. These questions included: What does it mean to be a successful teacher in PC? What have you learned in PC? What support did you receive from your course instructor? What support did you need from your course instructor? The survey was distributed online.

The statistical data were analyzed using SPSS. The narrative response was analyzed qualitatively by the researchers, who were instructors of the two sessions as well as supervisors of the PSTs participating in this study. An inductive investigative strategy was used in the process of data analysis (Hatch, 2002). The researchers began the process by removing PSTs’ names and reading the reflections independently, identifying domains, and searching for themes and relationship across domains. Next, the researchers reviewed the results of each other’s text analysis before they came together to compare and contrast the themes that emerged from the PSTs’ reflections as well as excerpts that supported the themes. This process was repeated with participants’ response to the open-ended questions in the exit survey, and the field notes. Finally, findings from each of the three sources of data were examined and triangulated in order to answer the research questions.

Limitations and Bias Statement

While case studies can include quantitative and qualitative data, this study is primarily qualitative. The researchers were also the participants’ course instructors and field supervisors. The researchers were aware of possible biases in interpretation of the data, particularly because of their participatory roles in PC. In order to enhance the validity of the study, the researchers collected, analyzed and triangulated, multiple sources of data by both investigators (Merriam, 2002). In addition, peer examination, a strategy which required the researchers to analyze data, first independently and then collaboratively, was employed to maintain the level of consistency and dependability of the results. Regardless of the efforts to ensure the trustworthiness of the study, the findings of this study described below were PSTs’ experiences told through the perspective of the researchers. The researchers hope that the description is rich enough for readers to determine to what extent their own situation matches the research context, and whether the findings can be transferred (Merriam, 2002).

Findings

Thirty-three out of 41 PSTs participating in PC at this site responded to the exit survey. Analysis of the data showed that 54.5% PSTs were satisfied or very satisfied with their experience in PC, 6% were dissatisfied or very dissatisfied, while 39.4% felt neither satisfied nor dissatisfied. At the time of the study, 24 PSTs worked in PC alone, nine worked with one or two other freshman or sophomore PSTs. On average, 45.5% PSTs spent 4-6 hours a week planning for PC; 30.3% spent 1-3 hours, and other 21.2% spent 7-9 hours. One PST mentioned that it took
them at least 30 hours a week to plan and revise a lesson for PC. The findings of the study are described below to answer the two research questions.

**Research Question 1: What impact does Project CONNECT have on pre-service teachers?**

The findings of the study are described below to answer the two research questions.

**Analysis of PSTs’ weekly reflection, response to the exit survey, and observation notes revealed that participation in PC impacted PSTs in the following ways.**

**Professional Identity**

The transformation of the PSTs’ perception of their professional role as a teacher was one of the most salient themes that emerged from data analysis. In the early entries of PSTs’ reflection, there was much concern that “Children won’t like me,” and “I want to be their friends.” In addition, early observation notes indicated that some PSTs were hesitant to respond to children’s misbehavior for fear of “they will get mad at me.” Many PSTs addressed the students using “honey” and “sweetheart.” It was not uncommon to find lower-grade children climb all over some PSTs during a read-aloud or snack time or field trip on an early release day. This sense of self as “friends” gradually changed through the year to one that thinks, talks, and acts more like a teacher. In the exit survey, PSTs expressed that being a teacher meant to:

- know how to work with different types of learners
- learn about students and plan according to their strengths and areas of growth
- need to be open to changes
- willing to spend a majority of free time planning effective lessons
- working effectively with peers
- providing students opportunities to explore their own wonderings

One PST’s response in the exit survey revealed the change of thinking about self as a teacher:

*Before I felt like I was babysitting and more of a friend. Now I feel like a teacher. I can grab and redirect students’ attention in different ways, and teach! I learned that there should be a boundary between a teacher and students. It is more important to engage children in learning something they are interested than trying to be kind all the time.*

The following excerpt from a PST’s reflection entry indicated that the PST was thinking like a teacher.

*Katie finished the project while other children were still busy working on theirs. She asked me if she could pick up a book to read. I agreed. Now I realized that sometimes some students could do quicker than others and that’s something I need to be prepared for. Next time I will bring several books, maybe related to the topic, or plan an extra activity, or just have students elaborate on their thinking.*

**Professional Skills**

Another impact PC had on PSTs was the development of professional skills such as creating a learning environment, planning and teaching a lesson, and classroom management. Learning environment was recognized as
important to student learning at the beginning of and during PC. In the exit survey, many PSTs were proud that they learned how to create a safe and welcoming environment, through bonding with students and community building. The excerpt below from a PST’s journal displays connecting with a fourth-grade student during activity time.

Nila was very interested in the pattern. So I spent some time with her to show how it worked. She managed to do it all by herself in the end and was really proud that she mastered the task. She is a very smart girl. We talked a little and she told me: “You know, I’m a little crazy sometimes. Sometimes I just lose my mind.” I had to laugh at this and told her that’s fine. I sometimes lose my mind too. It happened to everyone every once in a while. She smiled at me and said: “That’s OK, because usually I find it again after a short while.”

Another PST reflected on watching a third-grade boy struggle to fit into the after-school group and realized more community building was needed in order to create an inclusive environment. The excerpt below captured the thinking:

The original plan for the activity was that the children make the chain and give it to a friend. The children, however, didn’t like the idea at all. They all wanted to keep theirs. Jason told me he didn’t like anyone in the group anyway, and nobody liked him. Therefore, he wanted to keep his for himself. I tried to find out why he thought that way, and told him it could help him make some new friends this way. But then, before he could even start making his chain, he got picked up already. I think we need to build stronger relationship and to help children like Jason feel included.

There are really different characters in this group, and I really hope to be able to bring them closer together.

The problem described in this excerpt was brought to the attention of other PSTs working with the same group of children. In order to solve the problem, the third-grade team met on a weekend, and decided all five of them would go to PC one day to dedicate the afternoon to community building, discussing expectations and rules and participating in trust-building activities.

Like the ability to create a supportive learning environment, lesson planning is another professional skill that PSTs were able to improve in PC. In addition to readings and activities about lesson plan in class, PSTs were provided a lesson plan template adapted from backward design. Feedback was given before a lesson plan was taught in PC. Yet it was the repeated experiences of planning, revising, and teaching multiple lessons that helped PSTs understand concepts of learning outcomes, assessment evidence, and learning process. A PST described their learning process in the exit survey:

When planning for PC last semester, or even earlier this semester, I would search online. I would find a fun activity at Pinterest or Youtube, and think of an objective that could go with it. I did not understand why we had to plan backward from the learning outcomes rather than the activity, or how an objective was different from the process. I even blamed my students for not paying attention when the activity did not work. It was frustrating, until one day I caught myself asking “What do I want my students to learn?” while looking at the standards. I think I got it!
Another PST talked about the importance of connecting to students’ interest and knowing the content. He wrote:

I have learned the importance of understanding students' interest and planning to it in order to maintain their attention and engagement. I have learned the importance of knowing your content when it comes to teaching a specific subject. There is often a lot of research that comes into play while planning a lesson. I also learned how to connect my lessons across content areas, particularly how to integrate literacy in a number of ways.

Unlike the aforementioned skills, classroom management came up as a crucial topic early in the year. Pre-service teachers realized they could not even manage a small group of five or six students. They were frustrated and demanded attention to classroom management. One PST wrote:

It took me long to finally get my students sit in a circle. But they kept talking to each other and didn’t pay attention to my directions no matter how loud I was. I did not know what else I could do. I wish someone could be there to show me.

To help PSTs build their skills, both course instructors introduced the Responsive Classroom system, and conducted several book studies regarding teacher language, positive discipline, and establishing rules and routines. As the year moved on, PSTs’ reflection started to show less evaluative and more description. Here is an excerpt toward the end of first semester:

We officially started to use the Awful Scale. I don’t think the 2nd-graders fully understand it yet. They understand that 1 means not a big deal and 100 is something really major, but I am not sure if they know what situation is considered a 1. One girl came up to me and said so-and-so said “blah blah blah” to her. I asked her where that would be on the Awful Scale and she said a 1. So I asked her if it was worth telling me. She said “No, but, but...” So I told her since it’s not something awful they need to figure it out themselves. The problem was solved a lot quicker than me sitting down and talking to both students. I think the scale will eventually be an extremely effective idea, but it’ll take a few weeks for them to completely understand the meaning of it.

In PSTs’ response in the exit survey, classroom management was the biggest learning shared by many. Responding to what they have learned in PC, one PST wrote:

I definitely learned about how to manage a large group of students, especially when having some behavioral problems. I am now able to gather students’ attention without raising my voice which sometimes was what I really wanted to do. I learned how to calm down when stressed and surrounded by shouting students. I also learned that it is important to use a teacher voice and not proceed with a lesson if the students are not listening.

Pre-service teachers also reported that knowing the content and students’ needs, and planning accordingly, were critical to keeping behavior issues at minimum. Here is a PST’s response in the exit survey:

I have learned that knowing what you teach and having planned activities that connect to students’ strengths and needs is the key to success. In addition, if you have activities or lesson plans that all
intertwine with each other in a meaningful way, the children will stay more alert and engaged in what you are teaching them.

The researchers noticed that PSTs’ changes in the above three skill areas were correlated with each other. Building relationships and community building led to a healthy learning environment, which would likely to have fewer behavior issues. Similarly, effective planning would keep children engaged and save the teacher from spending time handling behavior problems.

Confidence of Teaching
Stronger sense of self as a teacher and improved professional skills are connected to PSTs’ increased confidence about their teaching abilities. This change was expressed in the PSTs’ exit survey as a sense of being prepared, successful, or more comfortable. For example:

My experience has gotten progressively more positive as time has gone on. In the beginning I was very nervous when being in the field, but by the end of the experience this semester I found myself very comfortable in the CONNECT setting. I feel that this semester was very successful because I had a lot more information going into the teaching and felt much more prepared to be with a group of students than I had in the past.

Pre-service teachers also conveyed greater confidence when sharing more realistic view of teaching. One PST wrote:

Through Project CONNECT I have learned that there is hardly a time in teaching where everything is going to work out perfectly. I feel like this was good experience in classroom management, and I take pride in the fact that I have all of this experience with classroom management at this point in my college career.

It is clear that PSTs’ belief in their teaching ability was inter-connected to their growth in other areas. Pre-service teachers’ confidence was almost always accompanied by connection with the students, clearer rules, routines and expectation, and better lessons. All these changes influenced how PSTs saw themselves as a teachers.

Teacher Dispositions
Overall, the impact of PC on PSTs’ attitudes, values, and beliefs was mixed. Many PSTs’ earlier experiences in PC were described with such words as “nervous,” “stressful,” “frustrated,” and “overwhelming.” As the year unfolded, language including “eager,” “excited,” “can’t wait to see how it goes,” and “it will be better” appeared in some PSTs’ reflections. These PSTs recognized PC as “a great opportunity to work with children,” “a useful experience to try different things and change around lessons if they’re not working.” One PST wrote in their reflection:

Every day is getting better for me. It is slowly getting better, but it is getting better. Every day is a learning experience where I know I will make probably a multitude of mistakes, but I will learn from them. A lot of teaching is trial and error and working with Kindergartners I know this occurs a lot. I take it for what it is though and try to change it to make it better because that will truly make me better, which will then make my students better. I am now always eager for Project CONNECT because I can use the new learning experiences and knowledge that I have gained last time and throughout the week to make my afternoon and the children’s afternoon go absolutely great!
It is worth noting that two PSTs’ attitude remained consistent throughout the process. At the beginning of the year, one of them wrote:

It (Project CONNECT) is nothing like a regular classroom! It has been stressed to keep them (students) occupied during the activity, because they generally don’t listen tentatively to our instruction. There are many days when they are respectful and it really makes the day bright, but it is hard to make that a constant occurrence.

The other PST stated:

They (course instructors) need to understand that Project CONNECT and their class aren’t the only things that we have to do and the work load is at max capacity. I personally struggled getting everything done and balancing out the rest of my life. I felt like I was drowning in the fifteen page lesson plans, twenty page reflections and all my other work plus outside school life like a job and sports and friends.

Although these PSTs are exceptions, it is important for teacher educators and administrators to be aware and understand their experiences. It was assumed that PC was a powerful program and that all PSTs who participated in it would develop positive dispositions about teaching. The different experiences of some PSTs indicated that more work was needed to understand what contributed to the change or lack of change regarding PSTs’ attitude, and to improve the effectiveness of this early field experience.

One consistent change among PSTs was their attitude toward uncertainty and unpredictability in teaching. Participants expressed that “not everything will go the way you plan it to,” that “your plans are going to change a lot,” and that “you need to be flexible with this.” One PST reflected:

I learned today that teachers always have to be flexible and open for change. If I would have insisted today that the rules stay as was, it would not be fun or effective. But because I let the children work together as a group and they came up with some changes, it ended up being a really fun activity for everyone! These rules will really mean something since children are part of the process to create them.

Such learning was also demonstrated through PSTs’ attitude toward taking risk and learning from mistakes. One PST shared:

I felt that it is OK to make mistakes in Project CONNECT because it’s a learning process. I’m able to test things to see what works and what doesn’t work, then go back and try again after making some changes. It’s making me more prepared for my future classroom.

In addition to the above mentioned changes, PSTs’ attitude toward feedback evolved over time. At the beginning of the year, many PSTs were defensive when getting feedback from the instructors. Some viewed constructive feedback as “negative,” and demanded feedback that was “more positive.” Toward the end of the year, they gradually became open. Some even took initiative to seek feedback. Pre-service teachers stated in their reflections that “Being a teacher means you are receptive to feedback that might be hard to hear, and being willing to improve.” “Sometimes it was a little harsh but it was useful.”

Analyses of the observation notes and PSTs’ reflections showed some evidence that PSTs’ multicultural competencies were developing. For example, the first-grade team
shared in class that a boy who kept introducing himself using different names – one day as “Monkey,” another day “Cat,” and yet another day as “David.” The whole class laughed at the story and commented that the child was trying to get attention. The course instructor advised the team to learn more about the child’s background. In the following week, the instructor read the book *Name Jar* to the whole class. The team shared what they found out about the boy, whose parents were immigrants from Africa. In the follow-up discussion, PSTs said that they never knew how an immigrant child could struggle with their cultural identities. They said they would have considered it as a behavior problem. Another PST described a difficult situation to which they did not know how to respond.

One situation that I was really overwhelmed with was during the afternoon meeting. When the children had a chance to talk to each other, Sam started making faces, pulling his eyes up and saying he “looks Chinese.” I wasn’t sure what I should say to that, if I should stop him and tell him this is not appropriate, or if I should better ignore it to not give him the attention he was trying to get. I also wasn’t sure why exactly he did it, if he knew what he was doing. Did he do this to be mean to Will and Ava, or was he just trying to be funny.

Sam was a white child. Will and Ava were Asian Americans adopted from Korea when they were infants. The PST was aware that Sam’s behavior was inappropriate and unacceptable, but did not know how to respond at that moment. The PST’s later reflected that though the child could have been pulled aside and asked why he acted that way, he also wondered how to turn the situation into a learning moment for the whole group. Pre-service teachers’ lesson plans toward the end of the year started to include objectives to increase children’s cultural awareness, such as snacks around the world and understanding hearing disability, and how sound travels, and despite emerging evidence of multicultural awareness, little evidence in the exit survey spoke to PSTs’ improved ability to work with children of diverse cultures.

**Research Question 2: What Contributes to the Impact of Project CONNECT?**

In order to answer the second research question, the researchers examined the relationships across themes that emerged from PSTs’ reflections, researchers’ observation notes, and the exit survey. The following factors were found to be associated with the impact described in the previous section.

**Campus-field Connection**

The connection between the course and PC contributed to its influence on PSTs in two ways. Pre-service teachers constantly referred to and applied what they learned in the college classroom while working with children in PC. For example, when reading the book *Positive Discipline*, many PSTs were skeptical of the idea that reward-punishment was not an effective way to discipline. They were wondering why schools, including the one where PC was housed, were still using the practice if it did not work. One day a second-grade boy in PC wrote something very inappropriate on his peers’ journals. As a punishment, he had to stay in the cafeteria and for the rest of the day. The PST working with the group later reflected:

> I was too embarrassed and did not know what to do, so I sent him to the site director. Looking back, I realize that keeping him in the cafeteria for the rest of the day is not a logical consequence of writing something inappropriate. It won’t help him understand why his behavior is
not acceptable. A natural consequence could be having him erase his writing in every journal he wrote and apologize to his group members.

The campus-field connection also contributed to PSTs’ learning when their experience in PC had a significant influence on the instructors’ decision to make adaptations in the college classroom. For example, when the instructors noticed that PSTs struggled with effective teacher language, they decided to do a book study on the *Power of Our Words*. One PST reflected following the book study:

> It has always been a challenge for me to find my “teacher voice.” I struggle with finding a happy medium between speaking too nicely, talking to my students as if they are my peers; and sounding too mean, speaking to my students in an authoritative manner. I found myself using a nice, but firm tone more often this week than last. More importantly, I was able to name children’s strength using reinforcing language, and give clear instructions to redirect their attention when children have gone off task. This is important to me because I realize that once I am able to develop this teacher language, I will have better control over my classroom, and gain more respect from the students.

Such learning would be difficult without the repeated cycle of learning-applying-learning between the field and college classroom. As the success of PC depended on meeting the needs of both the children it served and those of the PSTs, the campus-field connection made it possible for PSTs to take responsibility for the process of knowledge construction, instead of relying on professors and the course as the only source of knowledge.

**Supervision and Mentoring**

Supervision and mentoring by faculty and staff involved in PC was consistently mentioned as important by PSTs. The supervision went beyond observation in the field, extending to lesson planning, teaching, and handling behavior issues. One PST reflected on the experience of going to the instructor for comments and suggestions for lessons.

Faculty seems to be genuinely there to help you when you have questions and concerns. I’ve always felt very comfortable going to my professor to talk about a lesson that I thought might have needed to be changed. She has always been open with new suggestions and that always seems to work out. I feel that the faculty wants us to get the best experience that we can out of Project CONNECT and this is shown from the amount of support they give us.

Sometimes, PSTs reached out to other people when they needed help. One PST wrote in his reflection:

> I sometimes meet with my peers after class to discuss lesson plans, concerns and more about Project CONNECT. If something wasn’t working or I was stuck on what to do, there was always someone available, whether it is the coordinator, my professor, the site director, even teachers that work at the school. I was never left alone or completely lost. If I needed help, I had to reach out.

Providing effective feedback was part of the supervision and mentoring process. In order to help PSTs benefit more from feedback, the instructors planned specific activities to help PSTs to better understand the concept of feedback, types of feedback, and conditions needed for feedback to be effective. Meanwhile,
the instructors also made sure their feedback was clear, descriptive instead of evaluative, and balanced between strengths and needs. In addition, one-on-one conferences were held with PSTs who tried to plan a lesson “correctly,” or who believed getting feedback meant, “I did not do a good job.” All these strategies were used to help PSTs overcome resistance to feedback. Another aspect of mentoring was modeling. Due to lack of funding, Project CONNECT was not able to involve any school teachers. Therefore, it relied on the university course instructors and the PC staff to mentor the PSTs. Having a faculty or PC staff as a mentor was important to PSTs, especially when things were out of control, or when immediate intervention was needed to prevent possible “damage.” One PST reflected how he benefited from having the professor model during PC.

The great part about working with my professor for a little while was that I saw some things she did that worked really well. She would say “if you can hear me raise your hand” until everyone was quiet and raising their hand. She also brainstormed with me about how to deal with a particular boy who constantly touches other children. She suggested I try to have him sit down next to me, or give him something to occupy his hands.... Hopefully he would stop eventually.

Guided Reflection
Oral and written reflection every week, guided by the conversation in class and a set of questions, turned out to be a powerful tool. It helped PSTs examine what happened each time they worked in PC, as well as their own thinking about the experience. Reflections kept the instructors informed of what was going on in PC and the areas that needed to be addressed. Written reflections collected over the year provided evidence of PSTs’ professional and personal growth. In the beginning and early months of the year, PSTs’ reflections were short, about half to two thirds of a page, and contained mainly description of what happened. Their “reflection” was limited to a single-sentence statement without supporting evidence, and occasionally what they would do differently with the materials. Toward the end of the year, the PSTs’ reflection grew to 2-3 pages long on average, with some extending to 4-5 pages. The content became richer, including detailed descriptions and more in-depth reflections.
Sample excerpts included in this article spoke to the role of guided reflection in promoting reflective and critical thinking. In spite of the benefits, the researchers noticed several challenges. Firstly, when asked what they had learned from PC in the exit survey, no PST mentioned improved ability to reflect as a professional growth. Secondly, throughout the year, PSTs expressed very mixed attitudes toward reflection. They said they “hated” writing reflections, however, they also wanted to get more feedback on their reflection. Some PSTs did not see the value of reflective practice or its impact on teaching. One PST commented:

I received feedback on my reflections, but I was not observed often, which in a way made me upset. I would have liked feedback on my teaching not on how well I was able to write because in the end it is about the teaching not the reflection.

This PST’s comment is related to the third challenge, i.e., time and workload. Finding the time to sit down and record their thoughts about PC on a weekly basis could be difficult for PSTs. Moreover, course instructors struggled with reading PSTs’ field reflections and providing constructive feedback in a timely manner every week, in addition to reviewing multiple drafts of lesson plans, and having a full teaching load. It was hard to ignore that time restraints and unrealistic workload could undermine the power of the program.

**Logistic Factors**

Rather than direct contribution to the impact of the program, data analysis showed that logistical factors, including time, space, and scheduling could function as mediators. Time seemed to be the biggest challenge. Pre-service teachers reported difficulty finding time to plan and collaborate outside the class. Similarly, because faculty were assigned full load of teaching, they struggled with finding sufficient time to fulfill their dual role of course instructor and early field supervisor satisfactorily. In addition, the limited physical space available to PSTs and children frequently raised issues in PC.

According to the contract, PC could use the school cafeteria, the gym (when there were no scheduled activities), the library, a computer lab, and the art room. Considering that PC served 86 K-5 children on a daily basis, each of these spaces had to house multiple groups. The situation was a challenge for classroom management, and it increased the possibility of behavior and safety issues arising. Another factor that mediated the impact of PC was scheduling. Theoretically, PSTs were assigned to work with children in PC one afternoon a week, which meant school children in each group worked with five different PSTs over the course of a week. Even though the grade-level team was required to co-plan for the week, and to keep each other informed of what they did and how their day went, the inconsistency was hard to ignore. The instructors piloted scheduling creatively the second semester, encouraging PSTs who could work in the field every day for three consecutive weeks instead of one day for 15 weeks. It worked well for some PSTs and significantly improved consistency for the children, but not for those who participated in sports, or who still had to take courses in their concentration areas. It is imperative that more innovative strategies were needed in order to make PC a more positive experience for both PSTs and the children it served.

**Discussion, Recommendations, Limitations, and Implications**

The findings regarding the first research question were consistent with the literature that after-school programs provide opportunities for PSTs to develop professional identity, professional skills, confidence of teaching, and
teaching dispositions (Banks, Dunston, & Foley, 2013; Cone, 2009; Katz, McGinnis, Hestness, Riedinger, Marbach-Ad, Dai, & Pease, 2011). While previous research found that PSTs’ attitude was a factor that mediated the impact of an after-school program (Tinkler & Tinkler, 2013), this study found that participating in PC did not cause all PSTs’ attitude to change. Some PSTs’ attitude changed over the year from skeptical to welcoming and valuing the experience as a learning opportunity, but some others remained fairly resistant throughout the experience.

Looking through Dewey’s concept of experiential learning, the researchers noticed that all PSTs had the primary experience, which allowed direct interaction with the children, peers, faculty and staff, and the physical environment. Problems occurred in the course of the experience when PSTs’ teaching knowledge failed to support effective practice in PC. Interestingly, such failure or uncertainty gave rise to secondary and reflective experience for some PSTs as Dewey suggested, but not for all. Weekly reflections showed that when PSTs analyzed the problems, many were able to see both the internal (e.g., lesson planning, classroom management skills, and effort) and external causes (e.g., structure of PC, faculty/staff support, time and/or space). Informed by their own reflection, these PSTs focused on what could be done instead of what could not be done in their future planning, accompanied with more research on the content and children, as well as feedback from peers, faculty, and PC staff. Through the cycle of planning and testing of the plans, these PSTs’ knowledge of teaching was re-constructed and developed. Several PSTs, on the other hand, attributed the problems to factors that were external and not controllable, for example, PC was nothing like a regular classroom; children were not always respectful; and workload was unreasonable. These PSTs’ reflections focused on suggestions for change of the external factors rather than specific actions they could take to improve. Their lesson plans might incorporate feedback from instructors, but when testing of a plan did not lead to immediate solution of the problem, beliefs in external causes seemed to be reinforced. As the reconstructive and reflective experience never truly occurred to these PSTs, previously established thinking about teaching remained.

Another finding that drew the researchers’ attention, was that PC had limited impact on PSTs’ multicultural competencies. Upon re-examination, researchers noticed that PSTs seemed to perceive cultural diversity as difference of race and language. For most PSTs, the children they worked with in PC were not racially and linguistically diverse. They might not have felt the need to apply what they learned about diagnosing and adapting to the needs of diverse learners. Even for PSTs who did have racially and/or linguistically diverse children in their group, they might not know how to adapt to these children’s needs due to their own limited experience attending schools that served predominantly white, mono-lingual, and middle-class students. They probably never experienced culturally competent teaching as a student and never had an opportunity to observe such practice as a PST. According to Darling-Hammond (2010), “It is impossible to teach recruits how to teach powerfully by asking them to imagine what they have never seen or to suggest they ‘do the opposite’ of what they have observed in the classroom” (p.42). If developing PSTs’ ability to work with diverse students is one of the objectives for PC, they need to be taught how to do so in coursework or see what this is like in practice.

The findings related to the second research question showed that campus-field connection, supervision and mentoring, and
guided reflection were important factors contributing to the impact of PC. Similar to Darling-Hammond’s (2010) and Zeichner’s (2010) studies, the university-school/community partnership enabled PSTs to apply the knowledge and skills they learned in PC, as well as to highlight problems and needs which informed what and how the methods course was taught. In other words, PSTs initiated an inquiry-based and constructive learning process through their experience of working with children. However, the connection with the school and community was fairly limited. Project CONNECT was not able to hire any school teachers due to limited funding. Several community agents were involved throughout the year in PC, offering such activities as healthy choice of food and wood work. Unfortunately, these activities took place concurrently, in parallel with PSTs’ planned activities. Although PSTs sometimes interacted with school teachers and/or community people in the school building, these interactions were social by nature, which did not afford many opportunities for PSTs to access the practice-based knowledge existing among the school teachers and community experts. Because expert modeling of practice was an important component of successful field experience (Darling-Hammond, 2010), it needs to be included in the future to make PC a truly transformative experience for PSTs (Zeichner, 2010).

The study revealed a complex relationship between different components of an early field experience and its impact on PSTs. Consistent with the literature, it was found that course instructors served as early field supervisors who mentored the PSTs and engaged them in systematic reflection, had positive impact on their professional growth (Banks, Dunston, & Foley, 2013; Cone, 2009, 2012; Darling-Hammond, 2010; Kalchman, 2015; Tinkler & Tinkler, 2013). Nonetheless, their influence was mediated by such logistical factors as scheduling, time, space, and availability of human and material resources. Time and availability to observe the PSTs; to review lesson plans and reflections, and to provide timely feedback directly influenced whether all PSTs benefited from faculty’s supervision. When a PST was placed in PC Tuesday afternoon at the same time that the instructor was scheduled to teach another course, that PST did not have the opportunity to be supervised and mentored in the field. When these external elements intertwined with PSTs’ internal factors, such as perceptions of and attitude toward field experience, the effect of an early field experience like PC could be even further diluted. Given the complicated nature of such an early field experience, considerations should be given to not only program features but also to other factors, particularly the needs of PSTs and children, in the process of designing and assessing the program.

Based upon the findings, the researchers made the following recommendations:

1) Provide an informed early field experience. In addition to providing information about the after-school program and spending time on scheduling and lesson planning, prepare the PSTs by engaging them in discussion about the role and process of experiential learning, particularly one that takes place early in a teacher education program. Help PSTs understand early in a teacher education program how working directly with children in a variety of settings, including regular classroom and non-classroom contexts, contributes to knowledge of teaching. Introduce Dewey’s concept of experiential and reflective learning via the cycle of problem, hypothesis, and its testing in practice. Offer extra support to
PSTs who struggle with seeing both the external and internal causes for problem encountered in the field. Guide them to recognize factors they can work on, which are controllable and can change over time.

2) Create opportunities for developing multicultural competencies in both course work and field experiences. Darling-Hammond (2010) contended that “no amount of coursework can, by itself, counteract the powerful experiential lessons that shape what teachers actually do” (p.42). To bridge the gap between theory and practice, the researchers suggested that an early field experience, which allows PSTs to see expert practice of teaching diverse students, be integrated as a component of a course with a focus on developing PSTs’ multicultural competencies. In addition, assignments which require PSTs to interact closely with children from diverse cultural backgrounds will help PSTs examine their previously constructed biases and stereotypes. Another strategy is to bring into the college classroom teachers who have demonstrated culturally competent teaching in diverse settings. The teacher education program has alumni teaching in diverse urban classrooms. It would be of great benefit for the PSTs to hear these alumni share their experiences and to learn from their struggles and success.

3) Include community experts as a major source of knowledge in the after-school program. In PC, community experts typically offered activities to one group of children while PSTs worked with others. It would be a powerful learning opportunity to invite these experts to explain the activities to the PSTs and let them facilitate the activities. They could then move from one group to another to supervise and mentor those PSTs. It will be of greater benefit if PSTs could participate in the planning process. If we believe knowledge from the community is an important source of learning to teach, then community experts should be included in the process of planning, revision, and evaluation of such an after-school program.

4) Optimize logistical factors to maximize the impact of the program. The researchers recommend that credits be assigned to PC to honor the importance of experiential learning as well as the work of PSTs and faculty, possibly by treating it like the lab component of a natural science course. It is also imperative to manage scheduling in a way to ensure that all PSTs have equal opportunity to be mentored by their supervisors. It may also be helpful to offer instructor credit release to supervise PSTs working in early field experience like PC. Finally, getting support from classroom teachers and building leadership to obtain more spaces during PC. If PSTs and the children they work with could use a classroom, even for part of the afternoon program, the pressure for space and the potential for problems that space limitation may cause can be significantly eased.

This study has several limitations. One is that it examined aggregated data on common themes and relationships across different data sources, instead of the transformative experiences of individual participants. Examining individual PSTs’ experiences in PC might have provided more nuance about how changes happened or why they never happened to some PSTs. Another limitation is that the study did not include faculty’s views about experiences in PC. Pre-service teachers could have totally different experience if their...
Instructors believed that academic knowledge was the authoritative source of teacher knowledge (Zeichner, 2010). The last limitation is that the study did not include other two sites, where PC might be organized differently, and hence had different impact on the PSTs. The researchers, therefore, do not encourage any generalization based on the findings.

In spite of the limitations, the study shed some light on the university-based teacher education practice. It offers an important option for programs striving to provide PSTs early experiential learning opportunities. In addition, the study contributes to the existing knowledge of experiential learning by revealing the complexity of its process, in which logistical features and/or internal factors such as PSTs’ attitude toward and perception of field experience can mediate the impact. Moreover, findings of the present study imply that an authentic campus-field connection not only affords opportunity for PSTs to work with children in school or community settings, it also allows access to practice-based knowledge constructed by classroom teachers and community experts. Finally, this study indicates that pre-student-teaching field experience in different settings may have impact on different aspects of PSTs’ professional growth in different stages of a teacher education program. Future research can explore the roles of early field experiences in a variety of settings in the process of learning to teach.

**Conclusion**

Project CONNECT is an innovative after-school program initiated by collaborative efforts of university-based teacher education programs and a local school district to create early experiential learning opportunities for pre-service teachers. The program was named so with the expectation of connecting campus with the field, and theory with practice outside the college classroom. The purpose of the study was to examine what impact this structured after-school program had on the professional growth of pre-service teachers, and what characteristics contributed to the impact. Consistent with the previous studies about after-school programs, the findings of this study indicated that an after-school program which was established as a required component of education courses and took place in a school building had positive impact on the transformation of pre-service teachers’ professional identity, skills, and dispositions. However, such impact was not only related to the built-in features of the program, but was also mediated by the logistical factors and manifested with individual differences.

The study gave a glimpse of the complicated process of experiential learning in teacher education. Participating in a field-based learning experience, which afforded the repeated cycle of problem, hypothesis, and its testing, did not necessarily lead to learning. Through the primary and secondary experiences, every step could be influenced by so many internal and external factors. Perception of field experience could result in a positive or negative attitude; an pre-service teacher’s motives could drive them to attribute a problem to internal or external causes; previous knowledge, ability, and support could help them form a reasonable or unrealistic hypothesis; and in addition to all of these, effort or lack of effort could influence the result of testing hypothesis, which would change or reinforce the initial attitude and perceptions. As a result, learning may happen for some pre-service teachers but not others; or it may happen sometimes but not all the time.

Project CONNECT is like a newborn that has taken its first step. This step is far from being perfect – more effort is needed to bring on board the participation of school teachers; community expertise has to be not only present, but accessible to pre-service teachers; and needs
of all pre-service teachers are yet to be understood and adapted to. It is hoped that the findings of this study can help the program grow stronger and more effective. As there is little research about after-school programs integrated as a required early field component in teacher education courses, it is hoped that this study can serve as a catalyst for more future research on early experiential learning in teacher education.

References


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