

Enhancing Teacher Candidate Success through Experiential Learning Experiences

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Abstract

If colleges of education are to effectively prepare teacher candidates for entrance and sustainability within 21st century classrooms, it is essential they provide experiential learning opportunities in authentic settings for novice educators to practice their craft. Often, this takes place during courses inclusive of observation hours taken prior to the student-teaching experience. During this time, preservice teachers view what traditionally have been considered the essential skills; however, in this day and age of high stakes testing and teacher accountability mastery of a wider array of skills is expected. This study examines two distinctly different student observation formats. In the first configuration, teacher candidates (after observation approval has been granted by a school district of their choosing) complete tasks given to them by the course instructor under the supervision of their assigned mentor teacher. In the second, students are cohorted and all members complete their structured field-based hours with a mentor teacher at the same partnership school. Novice educators in this formation may interact with students and mentor teachers in multiple classrooms; thus drawing on a larger range of professional expertise. This study contributes to the body of research focused on collaborative school partnerships by providing a comparison of teacher candidate field experiences in both traditional and collaborative, cohorted settings. Findings suggest that teacher candidates who participate in a cohorted group in a similarly structured classroom environment prior to student teaching are more apt to engage in deeper conversations and have more meaningful opportunities when they student teach.

Keywords: experiential field experiences, student teaching, teacher candidate success

Teacher preparation programs have been rethinking the structure of educational methods courses and field experiences as a means of improving teacher education (e. g. Zeichner, 2010; Clark & Peterson, 1986).

For years, researchers have advocated that teacher candidates need to see the “big picture” of school environments, e.g. working with children and mentor teachers (Washburn-Moses, Kopp, & Hetttersimer, 2012; Wilson, Floden, & Ferrini-Mundy, 2001). Field experiences are vital components of each preservice teacher’s preparation for entry into the classroom. In fact, most teacher education programs around the country use field experiences to highlight the intersection of theory and practice (Maistre & Pare, 2010). This clinical practice, acknowledged by the Council for the Accreditation of Educator Preparation Standards (CAEP), has been shown to foster effective preservice teacher development when the format and structure of classroom experiences are well planned (AACTE, 2010). Since field observations are considered paramount for effective teacher candidate development, it is imperative that education preparation programs be open to periodic examinations of their field-based approaches.

Significance of the Research

Like many other states, the Texas Administrative Code (TAC) requires teacher candidates to complete thirty hours of field experience prior to student teaching. At a midsize university in the state of Texas where the study was completed, teacher candidates often met this requirement by completing all field experience hours in a single classroom where they were partnered with one mentor teacher. Since preservice teachers were able to self-select their district of placement, these field experiences were often conducted in districts within close proximity to candidates’ respective homes or places of employment. Additionally, these placements often resulted in pre service teachers experiences being in a district where they shared a similar culture and socio-economic status with the students in the district.

Sleeter (2011) affirms the claim that field experiences often take place in districts reflective of the candidate’s own race, social, and economic characteristics. While the “choice” of selecting one’s own field based observation district is insightful, this self-selective practice does not allow students to observe and learn from multiple teachers at different grade levels. Additionally, other researchers have expressed concern about the settings in which pre service teacher education field experiences occur; affirming Ladson-Billings (2000) findings that comfort zone field experiences do not reflect the realities of today’s complex classrooms. McIntyre, Byrd, and Foxx, 1996 echo the sentiment when they state, “teacher candidates do not enter teacher education program with the skills, knowledge and attitudes necessary to work successfully with a diverse population of students” (p. 183).

It is important during teacher candidates’ preparation and coursework to model different instructional practices and classroom management systems. Edwards (1996) and Siwatu (2011) examined the benefits pre service teachers experience when given opportunities to visit several schools and work with students in multiple contexts prior to student teaching. Such practices provided novice educators chances to serve professionals in a variety of classroom settings; thereby affording observation of both effective and ineffective methods of working with diverse student populations. Studies by Hanuscin and Musikul (2007) and Metcalf (1996) suggested that benefits of alternative field experiences may outweigh those of more traditional models.

The purpose of this study was to examine two distinctly different student observation formats. In the first configuration, teacher candidates (after observation approval was granted by a district of their choosing) completed tasks given to them by the course instructor while under the supervision of a single mentor teacher. In the second, students were cohorted and all teacher candidates completed their structured field based hours at the same district partnership. This school was located within a rural setting and designated by the state agency as such. Through this learning experience, teacher candidates observed multiple teachers (novice and veteran), within multiple disciplines, in a variety of grade levels. In each setting, novice educators participated in both actual lesson delivery and small group activities.

This study was guided by the following research questions: (1) does a structured multifaceted thirty hour field-based experience format impact teacher candidates’ effectiveness during the student teaching semester? (2) Did the experience encourage pedagogical discourse between the novice educator and his/her mentor and/or cooperating teacher? (3) What factors might influence a teacher candidate’s choice of field experience format?

Research Design

This study examined two different teacher candidate cohorts completing field experiences during their senior year and the format’s impact on candidate effectiveness during student teaching. The first cohort was considered a traditionally arranged group in which the teacher candidates completed 30 hours of field observation in a school district of their own choosing.

The second cohort was purposefully placed at a single school within a district which was considered a university partner. Five forms were used in data collection and thus served as indicators of student teacher effectiveness: (1) Cooperating Teacher Observation of the Student Teacher, (2) Evaluation of Student Teacher Performance Instrument by the University Field Supervisor, (3) Student Teacher Diary Cards, (4) Mentor and Cooperating Teacher Survey, and (5) Teacher Candidate Self-Assessment and Reflection.

Data pertaining to the five indicators of student teacher effectiveness were collected and analyzed to determine whether or not the format of field-based experiences had any impact on student teacher effectiveness.

Methods

Qualitative and quantitative field-based student teacher data were collected during the 2013-14 academic year. Data were collected from 15 field experience teacher candidates who elected to be placed in districts of their own choosing in the fall 2013 semester. Results were compared to identical data sources derived from 13 teacher candidates who elected to be placed in the university's partnership school for their student observation/ teaching experience during the spring 2014 semester.

Documentation

Multiple forms of documentation were gathered during the student teaching experience. The documentation was collected through multiple sources including (1) the Cooperating Teacher Observation of the Student Teacher Form (See attachment A) and (2) the Evaluation of Student Teacher Performance Instrument (STPI) by the University Field Supervisor Form (See attachment B). For both of these forms, raters had a Likert type scale to use to determine effectiveness of the preservice teacher in the K-12 classroom setting. In order to evaluate the effectiveness during student teaching, participants had to score within the two highest levels on the Likert scale labeled as either "Proficient" or "Advanced Competent" in all domains of the evaluation of Student Teacher Performance Instrument as well as be commended in at least two domain areas of the STPI.

Additional documentation included the (3) Student Teacher Diary cards (See attachment C). These were collected coded and analyzed for potential themes regarding the student teachers self- evaluation of their teaching. Documentation was also collected from (4) the Mentor and Cooperating Teacher Survey (See attachment D). Data from this survey allowed the capture of insights into the mentor and cooperating teachers role. Finally, data were collected through the candidate (5) Self-Assessment and Reflection (See attachment E). This data gave us additional information regarding the impact of the field experiences prior to student teaching.

Findings/Discussion

This study was guided by the following research questions: (1) Does a structured multifaceted thirty hour field-based experience format impact teacher candidates' effectiveness during the student teaching experience? (2) Did the experience encourage pedagogical discourse between the novice educator and his/her mentor and/or cooperating teacher? (3) What factors might influence a teacher candidate's choice of format for their experiential field experience?

The Field Experience Format

The field experience format was significant in terms of levels of performance during the student teaching experience. Analysis of the data suggested that fourteen participants (93%) in the traditional, non-cohorted, arrangement met the criteria for "effective teacher" and eight (62%) of the participants in the structured, varied arrangement met the criteria. Additionally, seven (47%) participants in the traditional arrangement were noted as "commended" in at least two domain areas and three participants (23%) in the structured, varied arrangement were noted as "commended."

Three questions on the STPI instrument were disregarded due to the high number of (N/A) responses. These questions related to communication with parents and working with other professionals in the school environment. Upon further analysis of STPI responses, it was determined that not all participants were given the same field opportunities; thus, three questions on the instrument were disregarded as not all candidates were able to be scored. However, upon further examination of the three discarded questions, it was noted that ten participants (77%) from the structured, varied arrangement actually scored at the highest level (5) in comparison with three participants (20%) from the traditional arrangement.

Ten participants (77%) from the structured, varied arrangement were able to be scored in all areas on the STPI which suggested that participants in the structured, varied arrangement were able to participate during the student teaching experience at a deeper and more meaningful level. The data suggested that participants in the structured, varied arrangement were more engaged and effective in their conversations with their cooperating teachers. Furthermore, the confidence levels cooperating teachers reported regarding teacher candidate competency supported the notion that participants in the structured, varied group got to participate more in the learning activities as deemed by those three questions that were disregarded on the STPI.

It was noted that some of the participants did not have the same opportunities to engage with parents, other professionals at the school, and take on additional responsibilities during the student teaching experience. That being said, 63% of participants in the structured, varied arrangement had more opportunities to be involved (such as engaging with parents, in faculty meetings, etc.) during the student teaching experience in comparison to only 50% of the participants in the traditional arrangement.

The field experience impact on teacher candidate effectiveness during student teaching was also analyzed based on completion of a student teaching diary card. Similar to the other documentation, the Student Teacher Diary Card was not fully completed by all participants in this research study. An analysis of the Student Teacher Diary Card information specifying the date at which the student teacher began teaching all class periods indicates the format of the field experience (Format 1 – Structured, Varied and Format 2 – Traditional). Structure of the field experience did not significantly impact the opportunity to teach 70% of the day in the first student teaching assignment. (See Chart 1)

Chart 1: Summary of Student Teacher' Teaching 70% of Assigned Time

**Summary of Student Teachers' Teaching 70% of Assigned Time -Spring 2014 Semester First Assignment
Start Date - January 21, 2014**

Student Teacher	Date Taught First Lesson	Date Met 70% Criteria/ Format Code
Teacher Candidate # 1	Date not given On Card	January 27, 2014 / 2
Teacher Candidate #2	January 21, 2014	January 30, 2014 / 1
Teacher Candidate #3	January 24, 2014	January 30, 2014 / 1
Teacher Candidate #4	February 5, 2014	February 3, 2014 /1
Teacher Candidate # 5	January 27, 2014	February 3, 2014 /2
Teacher Candidate # 6	February 5, 2014	February 5, 2014 / 1
Teacher Candidate #7	January 27, 2014	February 5, 2014 /2

An analysis of all submitted Student Teacher Diary Card data expands the impact of the structured, varied field experience on the opportunity to teach all class periods based as shown by the first date the teacher candidate met this criteria. (See Chart 2)

Chart 2: Summary of Student Teachers Starting Date for Teaching Full Time

**Summary of All Submitted Data - Student Teachers with Designated Start Date for Teaching Full Time
Assignment Start Date - January 21, 2014**

Student Teacher	Date Met 100% Criteria/ Format Code
Teacher Candidate # 1	January 27, 2014 / 2
Teacher Candidate #2	January 30, 2014 / 1
Teacher Candidate #3	January 30, 2014 / 1
Teacher Candidate #4	February 3, 2014 /1
Teacher Candidate # 5	February 3, 2014 /2
Teacher Candidate # 6	February 5, 2014 / 1
Teacher Candidate #7	February 5, 2014 /2
Teacher Candidate #8	February 10, 2014 / 2
Teacher Candidate #9	February 12, 2014 / 1
Teacher Candidate #10	February 13, 2014 / 1
Teacher Candidate #11	February 28, 2014 / 1

Most of the participants in their student teaching experience (89%) in this research study had a second teaching assignment to support a supplemental certificate area. Submitted second student teaching assignment data indicated that none of the student teachers taught all class periods daily or for approximately 70% of the student teaching assignment. This may have been due to state accountability testing which took place during March and April of spring 2014. Although it would have been preferable for the student teachers to be teaching full time, the mentor teachers may have been utilizing the student teachers for small group instruction to support the needs of the campus, thus, impacting the ability of a student teacher to teach all class periods 70% of the student teaching assignment. (See Chart 3)

Chart 3: Summary of Student Teachers Teaching Full Time in Second Placement

**Summary of Student Teachers Teaching Full Time Assignment 70% of the Class Days Second Placement
Start Date – March 17, 2014**

Student Teacher	Date Met 100% Criteria/ Format Code
None	None

An analysis of all submitted Student Teacher Diary Card data expanded the impact of the structured, varied field experience on the opportunity to teach all class periods based on the first date the teacher candidate met this criteria in the student teacher's second placement. Student teachers in the structured, varied field experience were given the opportunity to teach full time earlier than student teachers in the traditional field experience. (See Chart 4)

Chart 4: Summary of All Submitted Data for Student Teacher Start Date for

**Summary of All Submitted Data - Student Teachers with Designated Start Date for Teaching Full Time
Assignment Start Date – March 17, 2014**

Student Teacher	Date Met 100% Criteria/ Format Code
Teacher Candidate # 7	April 3, 2014 / 2
Teacher Candidate # 6	April 4, 2014 / 1
Teacher Candidate # 10	April 4, 2014 / 1
Teacher Candidate # 4	April 11, 2014 / 1

This data indicated that as student teachers were given more teaching responsibilities during the student teaching assignment, the value of the structured, varied format of field experience became apparent in two areas. The first was in the novice teacher's ability to manage and submit data as requested which is demonstrated by the larger number of structured, varied cohort of Student Teachers submitting *Student Teacher Diary Card* data. This is an important skill for teachers to possess due the continuous demands the educational system placed on reporting and documenting student learning and management functions of a classroom.

The Impact of Meaningful Discourse

The cooperating teachers who mentored the student teachers in this study all received a survey that asked about perceptions they had regarding the level of competence their novice educator possessed. Of the fifty-three (53) surveys that were administered, twenty-nine (29) surveys were returned yielding a 55% response rate. From the survey results, it was noted that 100% of participants in the structured, varied group engaged in meaningful professional dialogue according to questions 7, 8 and 9 on the survey (See attachment D). Moreover, data from the survey and from the Student Teacher Dairy Cards suggested that 95% of participants in the traditional experience group participated in meaningful professional dialogue. Survey results also indicated that the top 10% of scores on the survey came from cooperating teachers who were placed with participants from the structured, varied experience.

Nonetheless, the data suggested participants in the structured, varied group were slightly higher than those participants in the traditional arrangement. This is important to note in regard to the continued focus on accountability, and the need for districts to hire new teachers ready to perform at a high level in the classroom. This is concurrent with research by Darling-Hammond (2006) which stated that "the demands of teachers are increasing and that teachers need not only to be able to keep order and provide useful information to students, but also to be increasingly effective in enabling a diverse group of students to learn ever more complex material" (pp. 300). The ability to have even a slight advantage as a new teacher to the profession is helpful in today's competitive educational environments.

Factors that Impact a Candidates Choice of Format for Experiential Field Placements

Qualitative analysis of survey questions revealed that participants in the structured, varied arrangement reflected that they grew and developed at a higher level as a teacher because they had opportunities to experience modeling, lesson preparation and implementation, in addition to working with all the activities of the school day under the guidance of their mentor teachers. Preservice teachers in this group acknowledged the value of collaborative interaction during the field experience component; they stated that it contributed to their growth. Participants believed their mentor teacher was instrumental in helping them develop and refine their pedagogical skills and content area knowledge. "Being involved with my mentor and spending more time with my mentor" was a sentiment that appeared in multiple reflective statements. The participants reported their learning and pedagogical development was strengthened through the collaborative experience. Participants recognized that their mentor teachers invested time and effort to help them to learn more about the daily intricacies of teaching. While participants in the traditional arrangement grew and developed, they did not reflect such high levels of engagement during their field experiences. Their comments tended to focus on surface level topics. Some of their comments included: "I grew because I saw good teaching practices," "I did not have many opportunities to engage with students," or "I only had a few instructional opportunities to think out of the box." This finding is concurrent with what teacher educators and others have stated for years – we must find ways to be ever more present in public schools (Zeichner, 2010; Darling-Hammond, 2006).

A student teacher noted the value of the structured, varied experience "it wasn't just observation it was being a part of a community. My mentor teacher allowed me to experience a new level of field observation." Additionally, This is evident in one student teacher's comments "this semester has given me many opportunities to take control of the classroom...my mentor always gave me the change to begin the lesson, help the students perform different tasks and even teach my own lesson a number of times. I am glad I had this opportunity." The structured, varied arrangement allowed candidates to interact with parents, develop rapport; in short experience a variety of encounters before transitioning into the student teaching semester. One participant noted that "[this cohort experience] led me to be an effective communicator."

Another participant voiced the benefit of being actively involved in the daily routines of a teacher through participating in the structured, varied experience; "this experience has helped to see various areas in the teaching field instead of just observing one teacher and one classroom" the participant stated. A third participant echoed the importance and value of the active field experience cohort experience-"I feel less nervous going into student teaching because I was able to see much more in this cohort". Findings from this study indicated that it essential to provide earlier experiential field experiences that allow teacher candidates to engage in the realities of schools prior to the student teaching experience. This was consistent with longstanding research on the value of experiential learning coupled with coursework. It provided teacher candidates opportunities to connect and apply pedagogical concepts; to see "theory into practice" through meaningful field experiences (Hansen-Thomas, Fredrickson, & McMahan, 2015; Zeichner, 2010; Baumgartner, Korerner, & Ruse, 2002; Denton, 1982; Henry, 1983; Ross, Hughes, & Hill, 1981; Sunal, 1980).

It should be noted experiential field experiences are a primary focus area for CAEP. While teacher education programs across the United States use a variety of approaches and methods to enhance the growth and development of preservice teachers, the experiential field experience, coupled with a positive mentoring experience, is one of the major contributing factors in the development of aspiring teachers (McMahan & Piro, 2013).

Data within this study indicated that structured, varied experiential learning experiences were impactful in terms of both adding to the participants' depth of knowledge and providing meaningful opportunities for participants. Cooperating teachers felt the competence level of their novice educator developed to a degree where they felt comfortable giving them a greater sphere of influence in the classroom.

Boyd, Lankford, Loeb, Rockoff, and Wyckoff (2008) implied that when teacher candidates participate in field experiences that are related to future teaching positions and have closely aligned feedback from cooperating teachers and mentors, the entire experience is highly advantageous. Nonetheless, this study suggested that those teacher candidates who have more experiences in a structured classroom environment prior to student teaching are more apt to engage in deeper conversations and have more meaningful experiences once they do enter the student teaching semester.

Limitations

This study did not seek to find out hire rates for participants who were in the structured, varied or traditional arrangement; however, data received by the researcher regarding those candidates who were employed by July 1, 2014 stated that participants who engaged in the structured, varied arrangement were hired at higher rates (76%) than those who participated in the traditional arrangement (47%).

Conclusion

Field experiences provide pivotal learning opportunities for preservice teachers to develop as professionals. It is especially important not to orchestrate rich field experience opportunities that focus solely on exposing preservice teachers to the complex dynamics of teaching, but to also deliberately ensure that to the greatest degree possible, opportunities within the classroom are systematically crafted to enhance preservice teacher growth and development. By doing so, preservice teachers may become more effective as they begin their careers in education. Low student achievement, high drop-out rates, and teacher attrition make it important that teacher education programs continue to improve preservice teachers' experiential learning experiences to meet the demands of teaching in diverse 21st century schools (Grable, Hunt, Kiehle, 2009).

Moreover, this study contributes to the body of research on teacher knowledge by identifying those aspects of "learning, social and cultural contexts, and teaching" that need further understanding to help preservice teachers improve their practice (Darling-Hammond, 2006). In particular, the findings of this study may help to structure better experiential field experiences for preservice teachers and to adjust the curriculum and its pacing to foster the preparation of quality teachers for a diverse student population.

References

- Baumgartner, F., Korner, M., & Ruse, F. (2002). Exploring roles in student teaching placements. *Teacher Education Quarterly*, 29, 35-58.
- Blue Ribbon Panel on Clinical Preparation and Partnerships for Improved Student Learning. (2010). *Transforming teacher education through clinical practice: A national strategy to prepare effective teachers*. Washing, DC: National Council for Accreditation of Teacher Education. Retrieved from <http://www.ncate.org/Public/Publications/TransformingTeacherEducation/tabid/737/Default.aspx>.
- Boyd, D., Lankford, H., Loeb, S. Rockoff, J., & Wyckoff, J. (2008). The narrow gap in New York City teacher qualifications and its implications for student achievement on high-poverty schools. *Journal of Policy Analysis and Management*, 27(4), 793-818.
- CAEP. (n. d.). CAEP 2013 Standards for accreditation of educator preparation. Retrieved from <http://caepnet.org/accreditation/standards/>
- Clark, C. M., & Peterson, P. L. (1986). Teachers' thought processes. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 255-296). New York: Macmillan.
- Darling-Hammond, L. (2006). Constructing 21st century teacher education. *Journal of Teacher Education*, 57(3), 300-314.
- Darling-Hammond, L. (2010). *Evaluating teacher effectiveness: How teacher performance assessments can measure and improve teaching*. Washington, DC: Center for American Progress. Retrieved from http://www.americanprogress.org/issues/2010/pdf/teacher_effectiveness.pdf
- Denton, J. J. (1982). Early field experience influence on performance in subsequent coursework. *Journal of Teacher Education*, 33(2), 19-23.
- Edwards, J. (1996, November). A dose of reality for future teachers. *Educational Leadership*, 54, 56-57.
- Hansen-Thomas, H., Fredrickson, R.R. & McMahan, S. (2015). Experiential learning activities to promote higher education for At-Risk K-12 students. *The International Journal of Education and Social Science*, 2(4), 117-121.
- Hanuscin, D., & Musikul, K. (2007). Schools in for summer: An alternative field experience for elementary science methods students. *Journal of Elementary Science Education*, 19(1), 57-68.
- Henry, M. (1983). The effect of increased exploratory field experiences upon the perceptions and performance of student teachers. *Action in Teacher Education*, 5(1-2), 66-70.

- Grable, C., Hunt, A., & Kiekel, J. (2009). *Digital preservice teacher education: Field experiences as a possible augmentation to the traditional brick and mortar field experience*. Little Rock, AR: University of Arkansas.
- Ladson-Billings, G. (2000). Fighting for our lives: Preparing teachers to teach African American students. *Journal of Teacher Education*, 51(3), 206-214.
- Maistre, C. L., & Pare, A. (2010). Whatever it takes: How beginning teachers learn to survive. *Teaching and Teacher Education*, 26(3), 559-564.
- McIntyre, J., Byrd, D., & Foxx, S. (1996). Laboratory experiences as transition from campus to field. In D.J. McIntyre & D. M. Byrd (eds.), *Preparing Tomorrow's Teachers: The Field Experiences* (pp. 97-114). Thousand Oaks, CA: Corwin.
- McMahan, S. & Piro, J. (2013). Mentoring in a field experience. *The Field Experience Journal*, 12(2), 18-37.
- Metcalf, K. (1996). Alternatives to field-based experiences: The comparative effects of on-campus laboratories. *Teaching and Teacher Education*, 12(3), 271-283.
- Siwatu, K. D. (2010). Preservice teachers' sense of preparedness and self-efficacy to teach in America's urban and suburban schools: Does context matter? *Teaching and Teacher Education*, 27(2), 357-365.
- Sleeter, C. E. (2001). Preparing teachers for culturally diverse schools: Research and the overwhelming present of whiteness. *Journal of Teacher Education*, 52(2), 94-106.
- Sunal, D. W. (1980). Effect of field experience during elementary methods courses on preservice teacher behavior. *Journal of Research in Science Teaching*, 17(1), 17-23.
- Washburn-Moses, L., Kopp, T., & Hetttersimer, J. (2012). Prospective teachers' perceptions of the value of an early field experience in a laboratory setting. *Issues in Teacher Education. The Free Library*. Retrieved from [http://www.thefreelibrary.com/Prospective teachers' perceptions of the value of an early field. . . - a0322480270](http://www.thefreelibrary.com/Prospective+teachers'+perceptions+of+the+value+of+an+early+field...-a0322480270)
- Wilson, S. M., Floden, R. E., & Ferrini-Mundy, J. (2001). *Teacher preparation research: Current knowledge, gaps, and recommendations* (No. R-01-3). East Lansing, MI: Center for the study of Teaching and Policy in collaboration with Michigan State University.
- Zeichner, K. (2010). Rethinking the connections between campus courses and field experiences in college and university-based teacher education. *Journal of Teacher Education*, 61(1/2), 88-99.