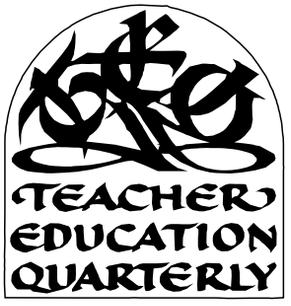


Secondary Teacher Candidates' Lesson Planning Learning

By Christina Santoyo & Shaoan Zhang

Teacher candidates (TCs) use clinical experiences to enact concepts taught in their university courses; therefore field experiences may be the most important component of teacher preparation (Hammerness et al., 2005). Although school-based teacher educators can be more influential in conceptual and procedural development than university courses (Rozelle & Wilson, 2012), the importance of concurrent university course work and field experiences is clear (Allsopp, DeMarie, Alvarez-McHatton, & Doone, 2006). Throughout course work and fieldwork, lesson planning—defined as developing tangible guides for interactions and outcomes (Ball, Knobloch, & Hoop, 2007)—can be overwhelming for new teachers (Jones, Jones, & Vermette, 2011). Teaching is grounded in the ability to design a lesson by understanding and utilizing resources, assessing the restrictions of the classroom, weighing options, and developing strategies (Brown, 2011). Therefore learning to plan lessons is essential to a TC's successful development as a teacher.

TCs require support and guidance as they learn to adapt curriculum materials for effective use in the classroom (Davis, 2006). They learn to lesson plan by negotiating the pros and cons of multiple methods while considering the needs of their students, their own knowledge, and their goals (Beyer & Davis, 2009). They tend to consider various ideas when planning (Davis, 2006), but these ideas are often

Christina Santoyo is a doctoral candidate in teacher education and Shaoan Zhang is an associate professor of teacher education, both with the Department of Teaching and Learning of the College of Education at the University of Nevada, Las Vegas. christina.santoyo@unlv.edu & shaoan.zhang@unlv.edu

narrow in focus (Beyer & Davis, 2009). Significant research has explored curricular planning by new and prospective teachers (Beyer & Davis, 2009; Courey, Tappe, Siker, & LePage, 2013; Davis, 2006; Jones et al., 2011). However, little research has investigated TCs' lesson planning through a concurrent focus on theories and concepts in a methods course and practices in a school-based context. This study challenges the misconception that methods courses and field experiences are dichotomous.

The goal of teacher education programs is to prepare TCs with knowledge, skills, and dispositions in teaching and learning. When these programs align university courses with field experiences through meaningful assignments, TCs may transfer their learning from the university to classroom practices (Gallego, 2001). However, TCs' learning has a limited impact on in-service practice (Grossman, Smagorinsky, & Valencia, 1999; Richardson, 1996). One reason may be that university-based teacher educators are distanced from school-based teacher education (Hughes, 2006); another reason may be a lack of university course work concepts present in school-based practice (Simmons et al., 1999). Exploring TCs' learning to lesson plan is significant in understanding the connection between school-based and university-based learning and between theory and practice. However, limited research has explored how TCs' field experiences enhance or hinder their planning.

The purpose of this study is to examine how secondary TCs in a general methods course and a school-based field experience learn lesson planning. It provides insight regarding the interactions of the TCs' methods course and first practicum experience. The general research question is, How do TCs' experiences in a concurrent practicum experience and methods course shape their lesson planning practices? Specifically, we investigate the following: (a) How does concurrent enrollment influence TCs' planning to use teacher-centered and student-centered methods? (b) How do university- and school-based contexts impact TCs' lesson planning choices?

Theoretical Framework

Dewey's (1938) experiential learning theory, expanded upon by Kolb (1984) and Zeichner (2010), guided us to see the impact of concurrent enrollment in a methods course and field experience on TCs' learning to lesson plan. Zeichner's (2010) concept of third space is particularly important in understanding the gap between university- and school-based contexts and in guiding discussion of the findings and significance of the study.

Experiential learning theory was developed by David Kolb as a philosophy of education based on Dewey's (1938) theory of experience. Experiential learning theory states that learning is a process that draws on prior knowledge and is thus always relearning; learning results from resolution of conflict and involves all aspects of a person's identity—thinking, feeling, perceiving, and behaving; and learning is a consequence of interactions between a person and the environment (Kolb & Kolb,

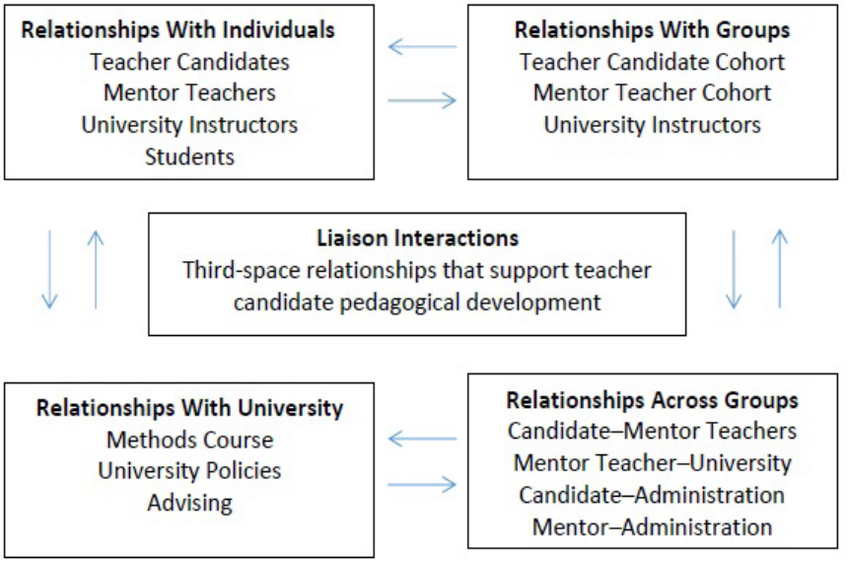
2005). Correspondingly, Kolb (1984) asserted that learning is a transformational knowledge-creation process in which "knowledge results from the combination of grasping and transforming experience" (p. 41).

Experiential learning, according to Kolb and Kolb (2005), is dependent on the learning environment. The concept of learning space views the learner and his or her environment as "interdependent variables" (p. 199); individuals learn through interaction with the environment, integrating theoretical knowledge and practical experiences. Zeichner's (2010) concept of third space, or hybrid spaces, elaborates on this understanding by asserting that "individuals draw on multiple discourses to make sense of the world" (p. 92). The goal of third space is to bring school-based and university-based teacher educators together in new ways to improve the teacher education experience in a nonhierarchical manner (Zeichner, 2010). Figure 1 shows the third-space environment that teacher education programs aim to achieve. In traditional programs, university faculty members are viewed as possessing the expertise as opposed to viewing the school-based teacher educators (mentor teachers) as experts.

In a third space, experiential learning is attained by creating spaces that encourage experiences that allow learners to grow (Kolb & Kolb, 2005). We argue that in

Figure 1

Third-space interactions: Building and navigating relationships in partnerships. Adapted from "Navigating the Terrain of Third Space: Tensions Within Relationships in School-University Partnerships," by S. D. Martin, J. L. Snow, & C. A. Torrez, 2011, *Journal of Teacher Education, 62*(3), p. 306.



teacher education, experiential learning should occur in third-space contexts to help TCs apply theories in practice. These third spaces should be purposefully constructed with an understanding of the complex social contexts of both the university and the school site to create "transformative learning sites for TCs" (Martin, Snow, & Torrez, 2011, p. 308). The concept of third space must consider the relationships within the context as fundamental to the space's educative potential. Third spaces provide potential for nonhierarchical conversations among TCs and in-service teachers as well as university faculty (Levine, 2010). When third spaces are not present in teacher education settings, these conversations are not guaranteed.

Although experiential learning has the potential to contribute to TCs' learning, the alignment of school-based field experience and university courses is crucial (Darling-Hammond, Bransford, LePage, Hammerness, & Duffy, 2005; Dewey, 1938; Goodlad, 1990). The research questions for this study were designed to discover how practical lesson planning knowledge and choices are impacted by an experiential environment.

Literature Review

According to Beyer and Davis (2009), teachers negotiate curriculum and work actively to develop and enact a plan. This idea represents the thought behind most research on TCs' learning to plan lessons. The reviewed studies focus on the lesson planning process (Ball et al., 2007; Mutton, Hagger, & Burn, 2011; Tyler, 2013), the impact of educative supports on planning (Beyer & Davis, 2009; Courey et al., 2013), and how new teachers implement curricula (Jones et al., 2011; Ruys, Keer, & Aelterman, 2012). Additionally, extant literature related to teacher- and student-centered lesson plans and concurrent enrollment in field experiences and methods courses is reviewed.

The Lesson Planning Process

The traditional method of lesson planning influenced by Tyler (1950) includes four processes: (a) identifying the school's goals, (b) selecting methods and learning experiences to meet those goals, (c) organizing instructional experiences, and (d) assessing how effectively goals were met (Tyler, 2013). In other words, lesson planning follows the process of identifying an objective, planning to meet the objective, and assessing students' learning. This structure also involves making decisions while teaching and incorporating theories and beliefs (Ball et al., 2007). The tendency to follow a script when lesson planning may be due to the TCs' lack of contextualized knowledge (Mutton et al., 2011). Ball et al. (2007) found that intern and novice teachers followed similar processes in lesson planning. However, these findings contradict Tyler (2013), who found that TCs did not follow the objective–planning–assessment procedure. Most organized information that they

viewed as important; connected the curriculum to their students' lives and modified it for their needs; and considered the influences of scheduling, technology, other materials, and outside influences on instruction (Ball et al., 2007). The differences in planning techniques could be due to participants' development from practicum students to student teachers to novices.

Researchers have also studied educative supports and found that certain supports impact TCs' learning to lesson plan. Educative materials are curriculum resources intended to help teachers make decisions about lesson design (Beyer & Davis, 2009). There are two types of educative materials: general educative materials, which relate to multiple lessons, and lesson-specific materials, which focus on one principle of practice. Educative supports help teachers adapt their lesson plans to student needs by applying principles that relate to prior knowledge. Beyer and Davis found that lesson-specific materials were used more often without focusing on underlying principles, and general materials were adapted to multiple critiques of lesson plans. The universal design for learning (UDL) is one general educative strategy that aims to prepare teachers to design flexible instruction regarding presentation, eliciting student responses, and engaging and accommodating diverse students (Courey et al., 2013). One study found that incorporating UDL principles in lesson plans significantly improved after professional development (Courey et al., 2013). This finding suggests that training throughout the teacher education program using educative supports will help TCs implement new strategies.

Extant research has also focused on the implementation of curricula during field experiences. One study focusing on the implementation of collaborative learning in lesson plans found that while TCs have a basic understanding of group work and can develop collaborative learning tasks, they have less success when implementing the lessons (Ruys et al., 2012). Another study focused on mistakes made during lesson implementation. Through microteaching, Jones et al. (2011) discovered common mistakes that TCs make when implementing their lesson plans. These weaknesses relate to objectives, assessment, an inability to engage students for entire class periods, and focusing on factual rather than conceptual knowledge.

Planning for Teacher-Centered and Student-Centered Lessons

Although the importance of student-centered teaching methods in maintaining student engagement in the technology age has been demonstrated (Schlechty, 2001), studies have shown that TCs do not implement student-centered teaching methods successfully. Upon examination of 323 student-centered lesson plans, Ruys et al. (2012) found that TCs developed strengths in designing appropriate learning tasks and developing adequate learning materials, but their ability to establish social objectives, rules, and expectations for collaborative work was weak. Specifically, engaging students successfully in collaboration was challenging because of ineffective time planning.

These challenges may be one reason for TCs' preference for teacher-centered

lessons. Cohen and Zach (2013) explored whether using teacher-centered or student-centered lessons influences TCs' teaching efficacy. Results show that TCs in the teacher-centered group were more efficient than those in the student-centered group. Cohen and Zach explained that student-centered lessons require new strategies and skills, and the brief nature of teacher preparation hinders TCs' confidence development. Additionally, owing to a lack of experience and limited exposure to students, these situations may challenge TCs' ability to handle complex issues, such as lesson planning, management, and student participation. On the contrary, the teacher-centered TCs experienced fewer student-related issues and were more comfortable with their teaching abilities.

Complex situations in field experiences complicate TCs' lesson planning. Strangis, Pringle, and Knopf (2006) explored how preservice teachers in science methods courses planned lessons. One finding was that mentor teachers do not model lesson planning in a transparent way, so TCs do not see connections between the university course and their practicum. Strangis et al. explained that mentor teachers may have internalized the process and assumed that TCs should be able to lesson plan as they do. They suggested that university-based teacher educators and school mentors ensure continuity of practice from university to school classrooms.

Although teacher education programs hope to demonstrate both teacher-centered and student-centered methods, in practice, many TCs focus primarily on teacher-centered methods. Currently, a limited number of studies have demonstrated how teacher education programs can prepare TCs to integrate student-centered methods more successfully in field experiences.

Concurrent Enrollment in University Course Work and Fieldwork

Teacher education occurs in two distinct contexts, and often teacher educators assume that TCs can make connections between the contexts on their own (Feiman-Nemser & Buchmann, 1985). The existence of these two contexts (university-based and school-based settings) and the resulting assumptions is referred to as the "two-worlds pitfall" (Feiman-Nemser & Buchmann, 1985, p. 16). To overcome this pitfall, teacher educators must help TCs realize the link between theory or understanding and practice. TCs also need to learn how to judge their practices and "adapt them to particular settings as well as to their own capacities" (Feiman-Nemser & Buchmann, 1985, p. 17). To successfully combine theory and practice, concurrent enrollment in university course work and fieldwork is crucial.

According to Zeichner (2010), whose work is essential in understanding third space, "two of the most in-depth national studies of teacher education in the U.S. have shown that carefully constructed field experiences that are coordinated with campus courses" (p. 484) are more instrumental in TC learning than the traditionally separate field experiences. Darling-Hammond (2006) studied seven effective teacher education programs and found that one common feature that made them

effective was field experiences that "are carefully developed to support the ideas and practices presented in simultaneous, closely interwoven coursework" (p. 41). Tatto (1996) found that congruence between university and school expectations is influential in developing TCs' beliefs. Zeichner (2010) also cited several studies that demonstrated the detrimental effects of disconnected field experiences, including Feiman-Nemser and Buchmann (1985), Stones and Morris (1972), and Zeichner (1996). These studies demonstrated the importance of concurrent enrollment in field experiences and university course work.

Previous studies have investigated lesson planning or concurrent university- and school-based enrollment, but they did not study both lesson planning and concurrent enrollment. Therefore this study examined the lesson planning experiences of TCs in a concurrent university-based and school-based teacher education context.

Methods

This multiple case study (Yin, 2013) used observation, interview, and artifact analysis to examine how TCs' experiences while concurrently enrolled in a practicum experience and methods course shaped their lesson planning. We chose to investigate the research question using a multiple case study to gain an in-depth understanding of a bounded integrated system (Glesne, 2011). The overarching research question explored how TCs' concurrent enrollment in a practicum and methods course shaped their lesson planning. Specifically, the goal was to understand how university- and school-based contexts impacted TCs' planning choices and how concurrent enrollment influenced their planning to use teacher-centered and student-centered methods.

Participants and Context of the Study

We conducted our study at a mid-sized university in the southwestern United States in spring 2014. We selected participants using extreme case sampling (Baker, 2006) and chose multiple cases to allow an in-depth understanding of the candidates' experiences. The participants were four master's-level students concurrently enrolled in a practicum and methods course while seeking licensure in secondary education. Because of the current national teacher shortage (Ingersoll, Merrill, & May, 2014) and the increase in the number of nontraditional teacher education programs at the researched university, we elected to study an alternative route program. Although the findings may not generalize to traditional undergraduate teacher education, they will provide greater understanding of nontraditional TCs' learning to lesson plan.

The four TCs who participated in the study were enrolled in their first and only practicum experience, taken concurrently with a general methods course. One candidate who was enrolled in the methods course was excluded because she was not enrolled in her practicum. Three of the participants were studying science

education, and one was studying English education. Three participants were female and had no teaching experience, and the one male participant had 3 years of substitute teaching experience. The participants were students in a dual licensure and master's program: Megan in physics, Christy in biology, Shannon in English, and Mike in physics.[1] Each of the participants had previous experience in another field before entering the teacher education program.

The course was a secondary education general methods course designed to examine effective teaching practices and theories. It focused on classroom organization, management, planning, contexts, and conditions as well as the school context and community. The course was selected because it is the first introduction to different types of general lesson planning as opposed to specific content area planning. The practicum experience in which the TCs were concurrently enrolled required attendance in a secondary classroom in their discipline (science or English) for 125 hours over the course of the semester. These requirements were completed by attending 3 hours each Tuesday and Thursday and 5 full days in the classroom for one semester. The TCs were required to coteach by planning and implementing at least five whole-class lessons with the aid of the methods course. All four candidates were placed in the same high school for their practicums, and mentor teachers were selected by the principal of the school.

The methods course instructor described his role in educating the TCs as answering questions and considering feedback, providing helpful suggestions, and being available to address concerns outside of class. He fulfilled this role through assignments and individual conferencing. The assignments related to lesson planning included curriculum analysis, individual lesson planning and peer editing, and a final unit plan. The goal of the curriculum analysis assignment was to help TCs understand the flow of planning, from standards to the delivery of objectives to formative and summative assessment. The lesson planning and peer editing assignments required TCs to write five lesson plans based on the instructional methods taught in the course and following a specified template. These instructional methods included (a) presenting and explaining, (b) direct instruction, (c) concept teaching, (d) cooperative learning, and (e) problem-based learning and inquiry. These lessons were written consecutively (moving from teacher centered to student centered), and each lesson plan was peer edited. Figure 2 shows the spectrum of teacher-centered to student-centered instruction. The unit plan was the culminating experience for the course: TCs created a cohesive 1- or 2-week unit utilizing specific standards and resources that was based on their revised lesson plans. All of the assignments were designed to help the TCs develop practical lessons to apply in a school-based context. Ideally, each of the five lessons developed in the course would be taught in the field, but this did not occur for any of the TCs (as further explained in the findings).

At the researched university, the school-based mentor's role in all field experiences was to meet collaboratively with the TC to discuss goals, objectives, and requirements of upcoming lessons. The mentors were required to give feedback

to the candidates before they performed the lesson. The nature of this feedback at the planning stage was not clarified by the university. While the TC presented the lesson, the mentor teacher was expected to observe and provide feedback. During the practicum, TCs worked with both the school-based and university-based teacher educators and were intended to learn to integrate lesson plans into the classroom through observation of and practice with their mentor teachers.

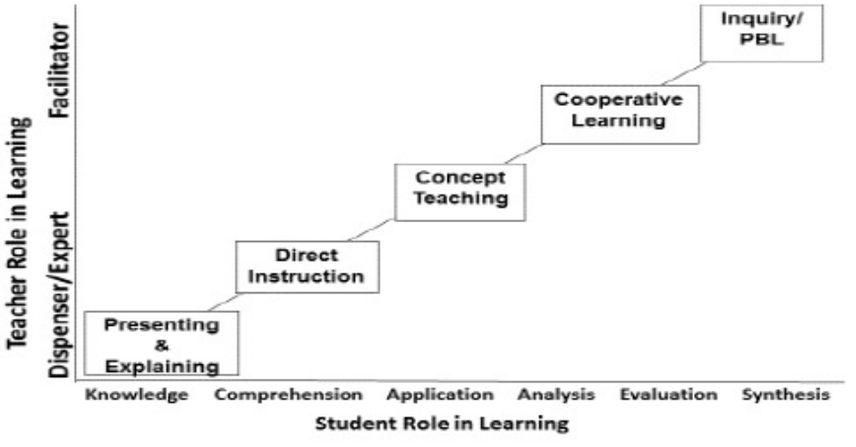
The practicum experience, intended during planning to be a third-space learning environment, was separate from the university setting in practice. While the university instructor and the researchers attempted to gain access to the school-based setting, none of the mentor teachers would allow access to their classrooms. They were all given the opportunity to participate, but none were willing to do so. Their apprehension demonstrates the difficulty in creating a true third space; while the university instructor attempted to successfully align his course with the practicum experience, he was met with barriers from the school-based mentors. Each mentor had a different set of expectations, and all of the information about the mentors came from TC self-report. Therefore the ideal third space that is discussed in the theoretical framework was not achieved; rather, concurrent enrollment with minimal alignment of course work and fieldwork occurred.

Data Sources

Multiple data sources were triangulated to acquire sound and sufficient information. Data included recorded semistructured, face-to-face interviews (see Appendix

Figure 2

Teacher-centered to student-centered spectrum. Adapted from *Learning to Teach*, 10th ed., by Richard I. Arends, 2015, Boston, MA: McGraw-Hill.



A) and field notes (Ryan & Bernard, 2003) taken during observation (see Appendix B). These data sources helped to answer the research question, How do TCs' experiences in a concurrent practicum experience and methods course shape their lesson planning practices and choices? Through observations of their methods course and conferences, the researchers were able to understand the methods being taught in the university course. Observation also helped us understand the instructor's view of the different purposes of student-centered and teacher-centered lessons as well as the different procedures or learning activities and assessments involved with each method.

Through interviews, we were able to understand the TCs' perceptions of their lesson planning choices, how the TCs perceived the goals and purposes of student-centered and teacher-centered lessons, which methods the TCs implemented in their lesson plans and their reasoning, and TCs' perceptions of the usefulness of concurrent enrollment. To ensure that TCs fully understood each of the teaching methods and their similarities and differences, we conducted only one interview at the end of the semester. However, being unable to collect primary data for school-based mentors weakens our ability to fully understand the TCs' success in implementing methods and how TCs learn to lesson plan in an ideal third space.

Data Collection

The first author conducted observations of the methods course throughout the 2014 spring semester, lasting approximately 2 hours and 45 minutes each. Additionally, the researcher observed six hour-long conferences between the instructor and the TCs and conducted four semistructured interviews with the TCs (Glesne, 2011), ensuring data triangulation. The work was also externally audited by another research participant (Glesne, 2011). The first author was shadowing the course and took on the role of participant observer to allow interaction with the TCs as a student as well as a student instructor.

Data Analysis

The data were coded using a hybrid inductive and deductive approach (Fereday & Muir-Cochrane, 2006). They were then analyzed thematically through repetition and similarities and differences (Ryan & Bernard, 2003). Deductive codes were developed through literature analysis to initially analyze the observations. These codes included broad terms such as mentoring, linkages, and confidence. Then, two rounds of coding were conducted using the interview data. During the first round of coding, general codes were developed inductively. The codes included presenting and explaining, direct instruction, concept teaching, cooperative learning, problem-based learning, inquiry, student learning, assessment, insecurity/struggles, confidence, mentor teacher roles, process, and course content. The second round of coding involved reorganizing the data into specific thematic codes. The new codes

developed into two themes: (a) teacher-centered and student-centered instruction and (b) the mentor's role in lesson planning.

Findings

The findings are organized into two themes: lesson plan approaches and the mentor's role in lesson planning. The findings in these themes suggest that TCs gain confidence through experiential learning in school-based contexts; success of a practicum program could depend on the mentor teachers encouraging their mentees to try new things during their preservice field experiences; TCs make fewer errors in lesson planning for teacher-centered lessons than for student-centered lessons; and TCs feel the need for a mentor, but their mentor teachers are not meeting the standards the students expect.

Lesson Plan Approaches: Teacher Centered or Student Centered?

The methods course focused on a spectrum of teaching approaches from teachers as experts who dispense information to teachers facilitating instruction. The six models taught in the course moved along the spectrum weekly; it began with teacher-centered models (presenting and explaining and direct instruction), which focus on factual knowledge, and it moved along the spectrum to more student-centered, conceptual models (concept teaching, collaborative learning, problem-based learning, and inquiry). The instructor discussed that student-centered instruction could be difficult for beginning teachers because it requires more planning, classroom management, time management, and reliance on students to take an active role in their learning.

Confidence in planning teacher-centered lessons. Similar to findings by Ball et al. (2007) and Tyler (2013), the lesson plan template provided by the methods course gave TCs structure and a common vocabulary to discuss issues in planning. Shannon explained that in learning to lesson plan, she followed a formula, starting with "this is what we're going to do today" (referring to the advanced organizer), followed by introducing a topic, lecturing, and then incorporating "an exercise or an activity." Finally, she would "wrap things up." For Shannon, understanding the "verbage" or common vocabulary from the course helped her explain her lesson planning procedure and gave her confidence in lesson implementation.

Following the model developed in the methods course, TCs used teacher-centered methods in their first lessons taught during the practicum. According to Megan, using direct instruction "felt OK. . . . There's one child who's in charge." At the beginning of the semester, she was not confident in her ability to plan and implement a teacher-centered lesson; she felt that her students held more power than she did. At the end of the semester, though, she stated,

> I thought [direct instruction] was the most successful as a new teacher. . . . I think as I have more experience, my concept learning could be great. . . . Cooperative

> learning, no that's going to take a couple years of teaching of classroom management and stuff like that under my belt.

Because Megan's mentor teacher encouraged her to focus on one method, by the end of the semester, she was confident in direct instruction. This finding demonstrates Cohen and Zach's (2013) claim that TCs are more confident when planning teacher-centered lessons.

During individual conferences between the methods course instructor and TCs that centered on lesson plan revisions, the instructor focused on minor details of teacher-centered lesson plans that needed clarification, such as clearer explanations of what the TC's role was as the teacher or what their students would be doing at a specific point in the lesson. The TCs had little trouble conceptualizing a lesson, and they were confident that their plans would translate well into the school-based setting. This finding aligns with Mutton et al. (2011), who found that TCs tend to follow a script because they lack experiential knowledge of how to incorporate lesson plans in the classroom.

When discussing more student-centered lessons during the conferences, the TCs corrected the issue of vagueness, but they had more difficulty understanding the methods. They found it difficult to conceptualize a thoughtful activity, or they misunderstood how to teach using the method. For her concept lesson (the third lesson plan and first student-centered lesson), Shannon stated that she found it "boring," and she could not think of a concept she wanted to teach. The instructor had to reexplain what a concept was and help Shannon brainstorm possible topics. Mike also struggled with his concept lesson in that he and the instructor did not agree on the difference between reflection and learning. For this method to be planned to the course specifications, students needed to explain how they learned the concept, not simply reflect on the concept. Shannon's and Mike's experiences with concept teaching support Jones et al.'s (2011) finding that new teachers often focus on factual rather than conceptual knowledge, which demonstrates a decreased confidence in planning for student-centered lessons.

Based on the conferences, TCs were most confident planning teacher-centered lessons and less confident using student-centered methods, again supporting findings by Cohen and Zach (2013). While major corrections were not required for the teacher-centered plans, they were required for student-centered plans. Christy, for example, needed to make significant changes to her student-centered cooperative learning lesson. In the lesson, she used a strategy called Numbered Heads Together (Arends, 2015). The instructor argued that this was only a strategy and did not suffice as an entire cooperative learning lesson. Facing challenges in engaging students in collaboration aligns with findings by Ruys et al. (2012). Christy had also forgotten to include a culminating summative assessment for her unit plan (which included all of the methods taught in the course). She explained that a lab she had used in the lesson would serve as the assessment, but there were pieces from the unit plan, primarily the cooperative learning and inquiry lessons, missing from the assessment. When discussing all of their lessons, the TCs tended to use

words like "successful" or "well" when referring to teacher-centered lessons, and they tended to use words such as "challenging" or "management" when referring to student-centered lessons. For example, Mike stated,

> Making [the lesson] completely student-centered was a challenge. . . . It takes time to move toward a more student-centered based approach. You have to be comfortable with who you are and knowing that you can manage the class before you can move into more student-centered teaching.

Even Mike, the most experienced TC, was more confident with the teacher-centered methods. By challenging their lesson plan development and choices, the university-based teacher educator supported TCs to implement their lessons in the school-based context so that they gained confidence in implementing teacher-centered lessons.

Lesson implementation in classrooms. When asked which of their lesson plans they felt was most effective in their practicums, three of the TCs listed a teacher-centered lesson (presenting and explaining or direct instruction). Megan presented five lessons throughout her practicum, all of which were presenting and explaining or direct instruction. She said, "Going into practicum—I don't have any real teaching experience. . . . What I need is just time to get comfortable speaking in front of the class. At least for this year." Like most of the licensure program students, Megan entered the classroom as a second career. She was concerned about her lack of practice teaching and interacting with her students. Experiential learning, for her, should focus on practice in a school-based context. Christy also found success with teacher-centered instruction. For her direct instruction lesson, she taught the students about a math concept that was difficult for them. She stated that her direct instruction lesson was successful because

> I gave them kind of like a hands-on thing they could manipulate, and . . . I showed them how to do it and then had them do it, and it worked out really well actually. They finally got it after like an entire year of not understanding how to do it.

Christy viewed this lesson as successful, and she defined success through experiential learning in the following way:

> It worked, like I said, way better than I thought it would. . . . I thought they were going to get it like right away and it was going to be oversimplified, but it actually challenged them, which was even better because it made them think about it . . . it was just like the most rewarding thing I've ever done. . . . I probably had 90% of the kids understanding what was going on, which was amazing to me.

For Megan, Christy, and Shannon, the experience of using teacher-centered methods in practice gave them more confidence with those methods. Christy's explanation shows that success means that most of the students learn a concept and are able to apply it.

Although all of the TCs were required to create lesson plans for each method, the most experienced TC had more confidence than his colleagues in applying his knowledge of student-centered methods. Of the four participants, Mike was the

only one to use student-centered instruction in his school-based experience through cooperative learning. Mike described his experience as successful but encountered some challenges. He explained,

> The actual approach to actually teaching it and just making it completely student centered was a challenge. . . . I mean all the prep happens outside of the classroom. . . . Once the class started, I mean, you're just kind of being the subject matter expert, advising. . . . I wasn't quite sure if the prep that you started and presented would actually work. . . . I didn't actually probably get it perfected until third period.

Mike's experience with teaching a collaborative (student-centered) lesson relates to Ruys et al.'s (2012) study that found that TCs have a basic understanding of group work and can develop tasks using collaborative learning, but they have less success when organizing and implementing student-centered lessons.

Despite the challenges, Mike felt that the collaborative lesson was successful. He stated that the real-world application of the lesson (using Pundit squares to determine probability) made it interesting for the students, which was instrumental in its success. He also claimed that being comfortable in one's classroom management ability is crucial to successful instruction. Mike has previous teaching experience and was the only participant who felt somewhat comfortable and successful when planning and teaching a student-centered lesson. He did, however, lack confidence in problem-based learning. He stated,

> If you give a science person a choice between [problem-based learning] and inquiry, they're going to pick inquiry every time because that's what we do all the time. So I'm . . . I need to move to understand more like problem-based learning—I need to get more comfortable with that.

He explained that he was less comfortable with problem-based learning because the other methodologies are more "straight forward," and because problem-based learning is challenging, he is more likely to be reluctant to try it. This statement further elaborates on Ruys et al.'s (2012) finding that candidates lack confidence in implementing collaborative lessons.

As Christy stated, moving along the spectrum from teacher-centered to student-centered instruction requires more preparation, which creates uncertainty about the lesson. The experiential learning process took at least three class periods before Mike felt confident with the method. He also said that his content knowledge was challenged in "making sure that I had a clear understanding of how I wanted to articulate that on a level—at a freshman level—that I didn't give them too much information . . . information that they don't need." Mike needed to give the students enough direction to ensure success but not so much that it would be confusing.

All of the participants who were new to teaching avoided student-centered teaching approaches, and the one who had previous teaching experience discussed his reluctance to try a new and different approach. Shannon explained her reluc-

tance to try student-centered instruction by stating, "My most success as being a first-year teacher, even a second-year teacher, is going to be with those first type of methods . . . just because of the experience aspect of it." Even though they were given the tools to understand and try the more complicated and time-consuming methods in their university course, the TCs were reluctant to try those methods.

Although the TCs have a positive attitude toward the student-centered teaching approach, most of them chose to utilize teacher-centered lessons during their experiential learning. They believed that inexperience resulted in their reluctance to try to use student-centered teaching models. This finding reveals the gap between TCs' knowledge of learning and their lack of confidence in and support for implementing more challenging learning tasks in field experiences.

Mentorship in Lesson Planning

In addition to a focus on teacher- and student-centered methods, mentorship at the school site and in the university course was a common theme. TCs struggled with gaps between their mentor teachers' knowledge, skills, and practices and the methods focused on in their university course. However, they did believe that their mentors were proficient in teacher-centered strategies, and they viewed their university instructor as a positive mentor. The gap in methods at the university-based and school-based sites also demonstrates the lack of a third space.

School mentor support and modeling. Extant research has found that TCs require support and guidance (Davis, 2006) while negotiating the positive and negative aspects of multiple teaching methods and strategies and considering the needs of their students, their own knowledge, and their goals (Beyer & Davis, 2009). Mentor teachers at the school site can be integral in closing the gap between theories, concepts, and frameworks taught in university courses and the site-based experience when it comes to lesson planning, but not all TCs observed this in reality. Megan seemed to learn the most from her mentor teacher. Megan's mentor focused on lesson planning as a way to integrate past knowledge with what the students are currently learning and as a way to prepare students for future classes. Megan stated, "When he structures his instruction, he's always kind of looking forward. . . . He knows the terminology from where they've come. . . . He always tells me, 'You want to ask questions that direct them to the conclusion you want them to get to.'" Megan was able to observe how an in-service teacher keeps past and future concepts in mind during instruction. Megan also discussed that he allowed her to choose lessons with which she was comfortable and to utilize all of his materials, and he gave her the ability and freedom to teach as often as possible.

Unfortunately, the area in which Megan felt most uncomfortable was student-centered instruction, and that was the area in which she felt least supported. During an observation, Megan stated that her mentor followed the same daily routine (direct instruction), and in her interview, she stated that he focused mostly on teacher-cen-

tered lectures because he had difficulty with classroom management. She explained that during student-centered instruction, her mentor teacher overlooked classroom management issues that Megan viewed as impeding student learning, such as texting in class or socializing. In addition to behavior problems, Megan stated that she felt uncomfortable in the classroom. She said, "It's still more their class. . . . I feel I'm only the visitor. You can't come in like—don't do that, be quiet, whatever—the heavy . . . that one has been a challenge all year." Megan's place in the classroom did not seem clear, and she struggled to feel like an authority figure in class. This feeling made student-centered instruction challenging because she already felt that she had little control. Megan's mentor teacher lacked the disposition to encourage Megan to try student-centered methods in the school-based context. These findings are consistent with Feiman-Nemser and Buchmann's (1985) discussion of the two-worlds pitfall. Megan did not feel like a member of the school community; therefore course work and fieldwork were not effectively interwoven (Darling-Hammond, 2006).

Unlike Megan, Shannon did not feel supported by her mentor teacher. While the mentor gave Shannon access to materials, she did not provide Shannon with direction. This lack of transparency in lesson planning supports findings by Strangis et al. (2006). When asked how her mentor teacher could have helped her, Shannon said, "Read the lesson plan? Read—give me feedback, and not do everything so quickly." Shannon went on to elaborate that she thought her mentor teacher was supposed to read her lessons and give her feedback and discuss how her lessons could be improved. She also stated, "I need direction at this point in my life. . . . I don't think I'm expected to know anything. . . . I used all my knowledge that I previously had. She didn't really teach me anything this semester." Shannon expressed a desire to learn and grow as a teacher, and the lack of support left her feeling frustrated.

Mentor knowledge. TCs tend to consider various ideas when planning (Davis, 2006), but these ideas are often narrow in focus (Beyer & Davis, 2009). Therefore it is crucial for mentors to support and guide TCs in learning to broaden their focus. For instance, unlike Megan, the other TCs did not feel that they learned much, if anything, about lesson planning from their mentor teachers, again supporting Strangis et al. (2006). Christy used the whiteboards that her mentor teacher had used previously to check for student understanding, but she did not plan with him. Therefore she could not benefit from his pedagogical content knowledge. Mike stated that his mentor teacher showed him the parameters of the lesson that he was going to teach and allowed him to select his topic but did not plan with him. For both Mike and Christy, being given the freedom to plan and teach without input from the mentor was the mentor's greatest contribution as opposed to their knowledge, skills, or dispositions.

While Mike and Christy did not express concern with the lack of input by their mentor teachers, Shannon found faults with the sample plans that hers provided. The mentor lent Shannon a mythology unit to help her plan a lesson for her ninth-grade class. Shannon stated,

> It seemed like it should have been sixth grade. . . . I feel like she dumbs her students down . . . and I think that's where I draw the line right there with me and my mentor. . . . She's not demanding enough from them.

Shannon wanted to learn from her mentor's lesson planning and unit planning knowledge and experience, but she felt that the planning she observed was inadequate.

Even though most of the TCs felt that their mentor teachers' input was not valuable for their lesson planning, they felt comfortable asking questions of their mentor teachers and discussing issues with their methods course instructor. Because the TCs were mostly unable to look to their mentor teachers for guidance and knowledge, some of them looked to their methods instructor for mentorship. Shannon, for example, drew inspiration from him for her lesson planning. She explained, "He says, 'I show you these things that are exemplar like activities.' . . some people it pisses them off because I don't expect you to go [to] this level. Me, it's a challenge." Shannon viewed her instructor's methods as challenging her to create better lesson plans, which was the opposite of what she experienced with her mentor teacher. She received support and knowledge from her university instructor rather than her site-based mentor.

The findings in this section support extant literature that effective teacher education programs integrate course work and fieldwork (Darling-Hammond, 2006) and that often TCs are placed in two separate contexts (the two-worlds pitfall) rather than given a third space in which to learn (Feiman-Nemser & Buchmann, 1985). As a result, TCs did not have the opportunity to shadow their mentors as they taught student-centered lessons, and they did not develop confidence in planning and teaching student-centered lessons during their practicums. The findings demonstrate that a third space was not created because the university-based teacher educator wanted the TCs to experience the whole spectrum of methods, while the school-based mentors were less concerned with developing student-centered skills.

Discussion

Teacher-Centered Methods

On the basis of observations of the participants' methods course and our interviews with the four TCs and the methods course instructor, we found that TCs prefer teacher-centered instructional methods. They prefer these methods because (a) they were able to learn them more easily and therefore their confidence grew through implementing teacher-centered lessons and (b) their mentor teachers mainly utilized teacher-centered instruction. Similarly, student-centered lessons were used less often because TCs lack confidence, support, and modeling in those lessons. These findings support the research question, How does concurrent enrollment influence TCs' planning to use teacher-centered and student-centered methods?

The interview results indicate that TCs gain confidence in teacher-centered

lesson planning through concurrent enrollment in a university course and school-based context. This finding supports Jones et al. (2011), who found that new teachers tend to focus on factual rather than conceptual knowledge. Because of support from their university-based instruction, the TCs in this study were more confident in teacher-centered lessons and were more successful in planning and teaching them. As Courey et al. (2013) found, training with educative supports can influence participants to use specific principles in lesson planning and help them become more comfortable with practicing those concepts. The focus on teacher-centered methods demonstrates the need for a third space environment where TCs can learn to lesson plan. Without this environment, there is—as Feiman-Nemser (2001) claimed—traditionally a feeble connection between course work and field experiences. The goal of concurrent enrollment is to change that relationship. However, this study found that while the methods course instructor placed equal emphasis on all teaching methods, the mentor teachers did not encourage TCs to practice student-centered methods. The TCs also may have valued a successfully taught lesson over a well-written student-centered lesson. During interviews, TCs defined a successful lesson as one that taught students the intended information and lacked classroom management issues. Gaining experience in teaching students may have been the most valuable aspect of their practicum experiences (as Megan stated); therefore they may have wanted to teach lessons in which they were more confident and avoid issues like classroom management.

Student-centered instruction was only used experientially by the TC with the most previous teaching experience. Although Mike was willing to try a student-centered method, he was reluctant to try problem-based learning because he had little experience with it. As Ruys et al. (2012) found, TCs can develop tasks using collaborative learning, but they have less success in implementing student-centered lessons. This finding demonstrates the TCs' tendency to practice the methods with which they feel most confident. It suggests that university- and school-based teacher educators should attempt to create a third space in which TCs can learn to plan and teach student-centered lessons rather than allowing them to resort to the lesson plan approaches with which they are more comfortable. Mike's mentor teacher was uninvolved in the planning process, and this raises the question of whether more involvement might encourage Mike to push himself to try a new method. He understood the problem-based learning approach theoretically, but he did not have an experiential or circumstantial understanding. Feiman-Nemser and Buchmann (1985) demonstrated that to overcome the two-worlds pitfall and create a third space, TCs must understand the link between theory and practice.

TCs tend to follow a script until they have more experience teaching (Mutton et al., 2011), and having a mentor teacher who requires more adventurous teaching could help TCs abandon the script earlier. The success of a practicum could depend on the mentor teachers' willingness to be involved with TCs' learning and to encourage them to try new lessons. Although TCs were encouraged to try new

instructional techniques in their methods course, they were not confident in trying them in the school-based setting without support and modeling. The importance of a strong mentor in teacher education has been confirmed (Beyer & Davis, 2009; Davis, 2006), but a significant finding from this study is that mentors are also influential in encouraging TCs to attempt lessons that they are not confident in teaching.

The findings also suggest that the TCs feel the need for a mentor. The literature stated that two common mistakes TCs make are trying to cover too much information and an inability to keep students engaged (Jones et al., 2011). Having a mentor teacher who is involved in the TC's development could help correct those mistakes. However, mentor teachers are not meeting the standards the TCs expect. While this finding is not valid without any data from the mentors, we learned from the TC data that their expectations for their mentors are fulfilled through interactions with their university instructor.

Creating a Third Space

On the basis of the theoretical framework of third space, ideally, university-based and school-based teacher education would occur concurrently and nonhierarchically. The existence of this environment is addressed by the research question, How do university- and school-based contexts impact TCs' lesson planning choices? Although the goal of teacher education programs is to create the ideal third space, in practice, there are several concerns about the school-based context and mentors' willingness to work with the university instructor. According to the TCs, mentors lacked sufficient knowledge, skills, and dispositions to support their learning of student-centered instructional methods. The mentors did not have the anticipated opportunities to work collaboratively with the TCs and the university-based instructor, who viewed both student-centered and teacher-centered methods as crucial to the TCs' development as burgeoning teachers.

Experiential learning theory posits that learning is a transformational experience that occurs when a person connects theory and practice through interacting with his or her environment. Third space expands on this concept to include the importance of relationships in the educational context. These relationships should be nonhierarchical and should span the university- and school-based settings. The researched institution had yet to create the required nonhierarchical relationships. The university instructor and school-based mentor teachers neglected to communicate about the TCs' progress or the goals related to their lesson planning. Although the TCs were aware of their university instructor's view about the importance of learning multiple teaching methods, their mentor teachers did not appear to share this belief. Many of the TCs expressed the feeling that their mentor teachers and university instructor had different expectations for their lesson planning. This finding demonstrates that a third space was not created, although the program was developed with consideration of the theory; as a result, concurrent enrollment was

not as effective, as Darling-Hammond (2006) suggested it should be, at interweaving course work and fieldwork.

Implications for Teacher Education Programs

One implication of our findings relating to third space is that the university course design should be communicated to school-based mentors so that they not only know the assignments but also know the model of aligning the university course and field experiences. Additionally, to create a third space, mentor teachers must be trained to work closely with their TCs and university faculty members.

The study extends our understanding of challenges that TCs face in learning student-centered teaching methods and demonstrates the need for teacher education program reform that takes third space into consideration. This study is significant to the teacher education program in many ways. Feiman-Nemser (2001) stated, "Good teachers know about a range of approaches to curriculum, instruction, and assessment; and they have the judgment, skill, and understanding to decide what to use when" (p. 1018). Enrollment in a general methods course provides TCs with the theoretical knowledge of a range of teaching methods, and concurrent enrollment in the practicum experience should (with the aid of a motivating mentor teacher) provide them with judgment, skill, and understanding. The study suggests that the mentor teacher plays an integral role in which skills a TC utilizes in the field. Therefore it is not sufficient to offer a course that is aligned with the school-based field experience; rather, the significant alignment of course work and mentorship remains a daunting task in teacher education reform.

Grossman (2005) stated that the five prevalent approaches used in teacher education are (a) laboratory experiences, such as microteaching; (b) case methods; (c) video or hypermedia; (d) portfolios; and (e) practitioner research. In the general methods course, the case methods approach was the only one utilized. The study suggests that the university instructor should create more opportunities for TCs to practice student-centered methods through university-based approaches, such as microteaching, before implementing lessons in their practicums. Although laboratory experiences were not more effective than other approaches in increasing TCs' understanding, they have been found to increase TCs' self-confidence (Grossman, 2005). Therefore using microteaching to practice the student-centered instructional methods in the methods course before performing the lesson in the practicum could encourage TCs to try more student-centered methods. We suggest that TCs be offered more opportunities to apply the theories that they have learned from the university course, in both school-based and university-based contexts.

Finally, the study extends the understanding of third space, in which "individuals draw on multiple discourses to make sense of the world" (Zeichner, 2010, p. 92). The goal is to create an environment in which mentor teachers and university instructors work together. This study found that the traditional version

of teacher education was upheld, and a third space was not created for the TCs. They viewed the classroom and university as separate spaces and did not view implementation of lesson plans created for the course as important, although concurrent enrollment increased confidence in implementing teacher-centered lesson plans.

The motivation of this study was to determine how TCs learn lesson planning through enrollment in a methods course and practicum experience. The result was that TCs learn lesson planning through practical application of theoretical concepts learned in the methods course. Confidence is a major factor in TCs' willingness to apply knowledge in practice. There is a common understanding in teacher education that fieldwork is the most important part of teacher education (Hammerness et al., 2005). However, this study suggests that there was a weak connection between university- and school-based settings.

Further research is needed to understand the importance of concurrent enrollment, third-space environments, and TCs' learning to lesson plan. Research should be conducted to understand TCs' challenges in understanding and applying student-centered lessons. Also, more research in which mentor data are included is required. These data should include observations and interviews that focus on challenges mentors face in working with TCs in a third-space setting.

Conclusion

The purpose of this study was to examine how secondary TCs enrolled in a general methods course and field experience learn lesson planning. Through observations and interviews, the study provided insight into the impact on candidates' learning to lesson plan through the interaction of their methods course and practicum experiences.

The findings of this study show that TCs gain confidence in their lesson planning (primarily in teacher-centered methods) through concurrent enrollment in a practicum where they can practice their lessons; TCs' willingness to try new methods could be related to their mentor teachers' involvement with and encouragement of their mentees; TCs feel a need for a mentor; and the lesson planning supports utilized in the methods course did not encourage student-centered teaching methods. These findings imply that it is necessary to further design assignments to enhance student-centered teaching in the practicum experience as well as in the university class. Additionally, a third-space environment in which university- and school-based teacher educators work together is needed. More communication between the methods course instructor and the mentor teacher could assist in encouraging TCs to utilize student-centered methods in the practicum. An involved mentor who encourages the TCs to try new methods is crucial for their professional development. Learning to plan lessons is essential to a TC's success in learning to teach, and a strong relationship between the school and university is crucial to that learning.

Note

[1] All names are pseudonyms.

References

Allsopp, D. H., DeMarie, D., Alvarez-McHatton, P., & Doone, E. (2006). Bridging the gap between theory and practice: Connecting courses with field experiences. *Teacher Education Quarterly, 33*(1), 19–35. Retrieved from http://files.eric.ed.gov/fulltext/EJ795196.pdf

Arends, R. I. (2015). *Learning to teach* (10th ed.). Boston, MA: McGraw-Hill.

Baker, L. (2006). Observation: A complex research method. *Library Trends, 55*(1), 171–189. doi:10.1353/lib.2006.0045

Ball, A. L., Knobloch, N. A., & Hoop, S. (2007). The instructional planning experiences of beginning teachers. *Journal of Agricultural Education, 48*(2), 56–65. Retrieved from ERIC database. (EJ840106)

Brown, M. W. (2011). The teacher–tool relationship: Theorizing the design and use of curriculum materials. In J. T. Remillard, B. A. Herbel-Eisenmann, & G. M.Lloyd (Eds.), *Mathematics teachers at work: Connecting curriculum materials and classroom instruction* (pp. 17–36). New York, NY: Routledge.

Cohen, R., & Zach, S. (2013). Building pre-service teaching efficacy: A comparison of instructional models. *Physical Education and Sport Pedagogy, 18*(4), 376–388. doi: 10.1080/17408989.2012.690374

Courey, S. J., Tappe, P., Siker, J., & LePage, P. (2013). Improved lesson planning with universal design for learning (UDL). *Teacher Education and Special Education, 36*(1), 7–27. doi:10.1177/0888406412446178

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

Darling-Hammond, L., Bransford, J., LePage, P., Hammerness, K., & Duffy, H. (Eds.). (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do*. San Francisco, CA: Jossey-Bass.

Davis, E. A. (2006). Preservice elementary teachers' critique of instructional materials for science. *Science Education, 90*(2), 348–375. Retrieved from http://onlinelibrary.wiley.com/doi/10.1002/sce.20110/pdf

Dewey, J. (1938). *Education and experience*. New York, NY: Simon & Schuster.

Feiman-Nemser, S. (2001). From preparation to practice: Designing a continuum to strengthen and sustain teaching. *Teachers College Record, 103*(6), 1013–1055. Retrieved from http://www.brandeis.edu/mandel/questcase/Documents/Readings/Feiman_Nemser.pdf

Feiman-Nemser, S., & Buchmann, M. (1985). Pitfalls of experience in teacher preparation. *Teachers College Record, 87*(1), 53–65. Retrieved from ERIC database. (ED237504)

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods, 5*(1), 80–92. Retrieved from http://ejournals.library.ualberta.ca/index.php/IJQM/article/viewArticle/4411

Gallego, M. A. (2001). Is experience the best teacher? The potential of coupling classroom and community-based field experiences. *Journal of Teacher Education, 52*(4), 312–325. doi:10.1177/0022487101052004005

Glesne, C. (2011). *Becoming qualitative researchers: An introduction* (4th ed.). Boston,

MA: Pearson Education.

Goodlad, J. (1990). *Teachers for our nation's schools*. San Francisco, CA: Jossey-Bass.

Grossman, P. (2005). Research on pedagogical approaches in teacher education. In M. Cochran-Smith & K. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 425–476). Mahwah, NJ: Lawrence Erlbaum Associates.

Grossman, P., Smagorinsky, P., & Valencia, S. (1999). Appropriating tools for teaching English: A theoretical framework for research on learning to teach. *American Journal of Education, 108*(1), 1–29. Retrieved from http://www.researchgate.net/profile/Peter_Smagorinsky/publication/249120937_Appropriating_Tools_for_Teaching_English_A_Theoretical_Framework_for_Research_on_Learning_to_Teach/links/0deec53ac6d0f77aa2000000.pdf

Hammerness, K., Darling-Hammond, L., Bransford, J., Berliner, D., Cochran-Smith, M., McDonald, M., & Zeichner, K. (2005). How teachers learn and develop. In L. Darling-Hammond & J. Bransford (Eds), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 358–389). San Francisco, CA: Jossey-Bass.

Hughes, J. A. (2006). Bridging the theory-practice divide: A creative approach to effective teacher preparation. *Journal of Scholarship and Teaching, 6*(1), 110–117. Retrieved from http://josotl.indiana.edu/article/download/1623/1622

Ingersoll, R., Merrill, L., & May, H. (2014). *What are the effects of teacher education and preparation on beginning teacher attrition?* (Research Report No. RR-82). Philadelphia, PA: Consortium for Policy Research in Education, University of Pennsylvania. Retrieved from http://cpre.org/sites/default/files/researchreport/2018_prepeffects2014.pdf

Jones, K. A., Jones, J., & Vermette, P. J. (2011). Six common lesson planning pitfalls: Recommendations for novice educators. *Education, 131*(4), 845–864. Retrieved from ProQuest database.

Kolb, D. A. (1984). *Experiential learning: Experiences as the source of learning and development*. Upper Saddle River, NJ: Prentice Hall.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education, 4*, 193–212. doi:10.5465/AMLE.2005.17268566

Levine, T. H. (2010). Tools for the study and design of collaborative teacher learning: The affordances of different conceptions of teacher community and activity theory. *Teacher Education Quarterly, 37*(1), 109–130. Retrieved from ERIC database. (EJ872652)

Martin, S. D., Snow, J. L., & Torrez, C. A. F. (2011). Navigating the terrain of third space: Tensions within relationships in school-university partnerships. *Journal of Teacher Education, 62*(3), 299–311. Retrieved from http://scholarworks.boisestate.edu/cgi/viewcontent.cgi?article=1009&context=literacy_facpubs

Mutton, T., Hagger, H., & Burn, K. (2011). Learning to plan, planning to learn: The developing expertise of beginning teachers. *Teachers and Teaching, 17*(4), 399–416. doi: 10.1080/13540602.2011.580516

Richardson, V. (1996). The role of attitudes and beliefs in learning to teach. In J. Sikula (Ed.), *Handbook of research on teacher education* (pp. 102–119). New York, NY: MacMillan Library Reference.

Rozelle, J. J., & Wilson, S. M. (2012). Opening the black box of field experiences: How cooperating teachers' beliefs and practices shape student teachers' beliefs and practices. *Teaching and Teacher Education, 28*(8), 1196–1205. doi:10.1016/j.tate.2012.07.008

Ruys, I., van Keer, H., & Aelterman, A. (2012). Examining pre-service teacher competence

in lesson planning pertaining to collaborative learning. *Journal of Curriculum Studies, 44*(3), 349–379. doi:10.1080/00220272.2012.675355

Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes. *Field Methods, 15*(1), 85–109. Retrieved from http://research.fit.edu/sealevelriselibrary/documents/doc_mgr/922/Ryan_et_al._2003._Techniques_to_Identify_Themes.pdf

Schlechty, P. C. (2001). *Shaking up the schoolhouse: How to support and sustain educational innovation*. San Francisco, CA: Jossey-Bass.

Simmons, P. E., Emory, A., Carter, T., Coker, T., Finnegan, B., Crockett, D., . . . Labuda, K. (1999). Beginning teachers: Beliefs and classroom actions. *Journal of Research in Science Teaching, 36*(8), 930–954. doi:10.1002/(SICI)1098-2736(199910)36:8<930::AID-TEA3>3.0.CO;2-N

Stones, E., & Morris, S. (1972). *Teaching practice: Problems and perspectives—A reappraisal of the practical professional element in teacher preparation*. London, UK: Methuen.

Strangis, D., Pringle, R., & Knopf, H. (2006). Road map or roadblock? Science lesson planning and preservice teachers. *Action in Teacher Education, 28*(1), 73–84. doi: 10.1080/01626620.2006.10463568

Tatto, M. T. (1996). Examining values and beliefs about teaching diverse students: Understanding the challenges for teacher education. *Educational Evaluation and Policy Analysis, 18*(2), 155–180. doi:10.3102/01623737018002155

Tyler, R. W. (1950). *Basic principles of curriculum and instruction, syllabus for education 360*. Chicago, IL: University of Chicago Press.

Tyler, R. W. (2013). *Basic principles of curriculum and instruction*. Chicago, IL: University of Chicago Press.

Yin, R. K. (2013). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.

Zeichner, K. (1996). Designing educative practicum experiences for prospective teachers. In K. Zeichner, S. Melnick, & M. L. Gomez (Eds.), *Currents of reform in pre-service teacher education* (pp. 215–234). New York, NY: Teachers College Press.

Zeichner, K. (2010). Rethinking the connections between campus courses and field experiences in college- and university-based teacher education. *Journal of Teacher Education, 61*(1–2), 89–99. doi:10.1177/0022487109347671

Appendix A

Interview Questions

Interview of TCs' Lesson Planning During Practicum

Directions: This interview includes eight questions that will help the researchers understand how TCs learn to teach in a context where the methods course and the practicum are combined.

1. Describe a method you used most successfully in your practicum during (methods) (Presenting and Explaining, Direct Instruction, Concept Teaching, Cooperative Learning, Problem-Based Learning, or Inquiry-Based Learning).

2. Why do you think it was a successful lesson? What challenged you most in planning and teaching this lesson?

3. What do you think your students learned from this lesson? How did you come to this conclusion?

4. Please describe what challenged you most when you planned this lesson regarding content knowledge, pedagogical content knowledge, and general pedagogy. Also, describe what challenged you regarding classroom management knowledge, assessment knowledge, and student learning knowledge. How did you manage to overcome your challenges?

5. What did your mentor teacher at your school site do to help you plan and teach this lesson successfully?

6. How could your mentor teacher have helped you better plan and teach this lesson?

7. What activities and assignments in (methods) helped you plan and teach the lesson?

8. What experiences do you think that you need more of in the (methods) course to better prepare you to teach this lesson?

Appendix B

Observation Protocol

Time	*Speaker*	*Method*	*Notes*	*Quotes*
7:45 p.m.	Instructor	Direct Instruction	Discussion of lesson planning: • Establishing set (state objectives; pull them in with a hook) • Demonstration of knowledge (steps I will demonstrate must be present) • Guided practice (we do; working through the steps with them) • Check for understanding and provide feedback (if you do it with guided practice, must be stated explicitly) • Extended practice/ independent (can be in homework; must be stated explicitly	"What if there are no steps?" (Mike) "Then it's not procedural knowledge." "Just because it sounds elementary to you doesn't mean it will be to your students." "You are teaching them how to do something." "In the classroom you'll probably do them together." (Presentation and Direct Instruction)
7:52 p.m.	Megan	Direct Instruction	Used exit ticket as independent practice	"That's how I know they actually did something."