Everyone thinks of changing the world, but no one thinks of changing himself.
Leo Tolstoy

Abstract

This phenomenological case study examined the lived experiences of preservice agriculture teachers in a 16-week learner-centered teaching methods course. Fifteen senior level preservice teachers attending a land-grant Midwestern university one semester before an intensive 12-week student teaching internship were studied. Preservice teachers experienced a classroom culture that was dissimilar to the dominant teacher-directed university classroom culture to which they were accustomed. The study yielded two major findings. First, preservice teachers’ past experiences in agricultural education and epistemological beliefs of teaching and learning played a major part in their motivation and willingness to adapt to methods of instruction that were unfamiliar to them. Preservice teachers who had strongly held beliefs shaped by youth experiences in agricultural education and a view of learning based on the assumptions of teacher-directed instruction were unwilling to alter or change their methods of teaching to encompass a larger subset of learner-centered teaching methods. Second, preservice teachers, especially those who had strongly held beliefs shaped by previous experiences in agricultural education and behavioralist and cognitive views of learning, were unmotivated to learn and struggled to reflect critically on their own teaching and learning experiences.

Introduction & Theoretical Framework

Preservice teachers need to be prepared to meet the challenges helping prepare students for working and living in diverse communities. Modern industrial societies value a person who is willing and able to initiate and respond positively to change (Oreg, 2004). Educational researchers widely recognize the need to better understand the change process that leads to intellectual development of teachers (Stuart & Thurlow, 2000). Teacher change is illustrated in terms of learning, cognitive development, implementation of something new or different, affective change, and self study (Richardson & Placier, 2001). There are two predominant paradigms of teacher change. The classic paradigm—empirical rational strategy (Chin & Benne, 1969) suggests teachers pass through stages that are simply sequential, linear, and generally beneficial. This paradigm is grounded on the assumption that teachers as rational human beings and change agents will simply implement new instructional practices seemly instantaneously from teacher training experts. Conversely, the second paradigm—normative-reeducative strategy suggests a more flexible and innately conceptual development process (Richardson & Placier, 2001). This paradigm is based on phenomenological and hermeneutic assumptions of humans making sense of change situations. The change process is enhanced and shaped by teachers personally and deeply reflecting on their beliefs about teaching and learning and their practices in classrooms. Teacher change can be voluntary or naturalistic, based on developmental stages, or be a result of formal teacher preparation programs (Richardson & Placier, 2001). Although complex and difficult to understand, teacher change can be
characterized by study of people’s biographies, personal experiences, and individual personalities. Teachers can be selective about the changes they are willing to accept. Louden (1991) documented that a particular teacher changed in her teaching while maintaining particular setting-specific traditions. Ball and Goodson (1985) suggest that teacher development must be viewed in relation to life history.

Life history plays an important role in teacher development. Preservice teachers observe thousands of hours of teaching behaviors as a student. Numerous hours of witnessed good teaching tends to reinforce the view that teaching is effortless due to the knowledge and experience supporting the teaching being invisible to those taught (Munby, Russell, & Martin, 2001). Because of their participation and observations in classrooms throughout their educational careers, student teachers are reluctant to challenge their culturally conditioned beliefs about teaching and learning. Lortie (1975) found that this “apprenticeship of observation” was a powerful force in many preservice teachers’ development. Preservice teachers’ beliefs were shaped by many former teachers through a subconscious process of imitation (Lortie, 1975). These staunchly held beliefs about teaching and learning act as a filter for any new information that are presented in an educational setting (Pajares, 1992).

Teachers’ educational beliefs influence their instructional decisions and classroom practices (Pajares, 1992). The personal epistemological beliefs one holds about teaching and learning influences how one interprets instruction and thus engages with the material (Hofer, 2001; Schommer, 1990). Van Berkel and Schmidt (2000) found a relationship between type of instruction, student motivation, and performance. Specifically, college students have different ways of knowing, which influence how they learn and acquire knowledge (Baxter Magolda, 1992). There are two distinct forms of teaching and learning in college classrooms. Teacher-directed learning is when the teacher transmits knowledge to passive learners (Kember & Kwan, 2000), usually by lecturing (Kember, 1997), which is the main instructional method in higher education (Neuman, 2001). Fundamentally different (Samuelowicz & Bain, 2001), learner-centered teaching shifts the responsibility of learning on actively engaged students while the teacher becomes a facilitator of the learning process and helps students learn concepts rather than acquire knowledge (Barr & Tagg, 1995; Kember, 1997).

Adjusting to a new type of learning environment can be difficult. The cultural reality of a college classroom challenged rural teacher certification students and created a cultural learning environment that is unlike those previously experienced by seasoned classroom participants (Dees, 2005). Similarly, agricultural education preservice teachers were frustrated and unmotivated when teacher educators who had different epistemological beliefs of teaching and learning taught them, which were also reflected in how the course and assignments were structured (Hoop, 2003). Furthermore, preservice teachers who experience learner-centered teaching methods as education students does not necessarily translate into the ability to use learner-centered teaching methods as teachers. Both Simmons et al. (1999) and Klein (2001) found that beginning and preservice teachers in secondary science and mathematics believed they taught their students using methods that were based on the assumptions of learner-centered teaching. However, these teachers’ practice contrasted starkly with their professed student-centered beliefs.

In a new classroom environment, students tend to use acculturation coping strategies to when presented new ideas and unfamiliar teaching and learning methods. Berry (1990)
explained the phenomena of psychological acculturation as a process by which individuals are influenced by two dissimilar cultures and are forced to adapt to the influences of one culture while simultaneously being impacted by intercultural influences of their own culture. When individuals are faced with maintaining their cultural identity or establishing lasting relationships with the dominant cultural group, Berry (2004) postulated that individuals react in four complex coping strategies. Individuals tend to interact with the prevailing cultural standard in the following ways: (1) assimilate or move away from their home culture towards the dominate culture; (2) separate or hold onto his/her native culture ideology and avoid contact with the dominant culture; (3) integrate or identify with the dominant culture while simultaneously remain connected with the home culture; and finally, (4) marginalize or have limited interest in the home culture or the dominant culture. Unexplored beliefs of beginning teachers may be a reason why teachers perpetuate antiquated and ineffective teaching practices (Pajares, 1992). To prepare teachers as agents for change in schools, researchers must first understand the motivational and cognitive beliefs of preservice teachers (Pajares, 1992; Stuart & Thurlow, 2000).

Intellectual development is a journey that requires effort. The effort one puts forth to learn is based on motivation. As Ryan and Deci (2000) point out, the amount as well as the type of motivation is important to a person’s willingness to act. Intrinsic and extrinsic motivation (Ryan & Deci, 2000; Lin, McKeachie, & Kim, 2003) and expectancy or task value (Wigfield & Eccles, 2000; Green, 2002) theories served as the theoretical framework. The self-determination theory (Ryan & Deci, 2000) differentiates between intrinsic motivation and extrinsic motivation. Intrinsic motivation is doing something because it is inherently interesting, and extrinsic motivation is doing something because it leads to external outcomes. Preservice teachers should preferably be intrinsically motivated and interested in participating in tasks for reasons of personal challenge, curiosity, or mastery of a particular undertaking (Pintrich, 1990). Additionally, expectancy value theory asserts that the amount of effort a person expends depends on two variables: (a) the degree to which they expect to succeed, and (b) the degree to which they value the task and value success of the task (Wigfield & Eccles, 2000). Understanding motivational beliefs are important because preservice teachers’ tend to be relatively passive learners and are reluctant to put forth the great deal of effort it takes to find unfamiliar and complex ideas useable in the real world (Hill, 2000).

Beginning teachers must be equipped with the knowledge, skills, and dispositions that will enable them to succeed with the changing needs of all students (NCTAF, 1996). Career and technical education teachers need better preparation in meeting the needs of unique students (Ruhland & Bremer, 2002). Career and technical education teachers need innovative and alternative instructional strategies to actively engage students in the learning process to raise academic standards (Ruhland & Bremer, 2002) and prepare students from diverse cultures (Adams & Hall, 2002). Adams and Hall (2002) recommended enhanced preparation and professional development is needed if career and technical education is to have a positive impact on the education of our youth and the workforce during the 21st century. This study focused on one of the 16 career clusters in career and technical education. Within the context of a university-based teaching methods course in agricultural education, students must have the ability to think critically and be willing to challenge and ultimately adapt their “historically and culturally conditioned” (Hill, 2000) beliefs about teaching and learning.
The method in which students are taught to develop and implement instructional lessons in secondary education settings and their applications of these instructional methods during student teaching needs to be studied in relation to personal epistemology and beliefs about teaching and learning in the college classroom (Dees, 2005). This study was based on the proposition that preservice teachers who are challenged with a learner-centered, constructivist teacher education methods course would be better prepared to adapt and change to meet the challenges and solve problems they would face in the real world as a career and technical education teacher. Research is needed to verify if this apparent proposition exists and determine preservice teachers’ development in such an experience (Adams & Hall, 2002; Stitt-Gohdes, 2001). This study also strives to better understand and appreciate the diverse needs and talents of all preservice teachers thereby creating an enhanced curriculum to better serve the professional development needs of preservice career and technical teachers (Ruhland & Bremer, 2002). Few studies have been conducted concerning the role of preservice teacher experiences in a student-centered teaching methods course in career and technical education, and are needed to determine if teachers are willing to challenge themselves to lead the next generation of diverse scholars beyond what exists in the here and now.

**Purpose & Objectives**

The purpose of the study was to understand how preservice teachers interpreted their learning experiences in a learner-centered teaching methods course. The specific objectives of this study were to: (1) explain how preservice teachers’ previous experiences in agriculture education and their epistemological beliefs influenced their willingness to learn different teaching methods modeled by a constructivist teacher educator, (2) describe preservice teachers’ motivation in the course, and (3) describe preservice teachers’ cognitive engagement through self-reflection on classroom learning and real-world teaching experience.

**Methods & Procedures**

This phenomenological case study (Gall, Gall & Borg 2003) was conducted by a graduate teaching assistant and a teacher educator. The researchers were highly embedded participants in the two teaching roles who systematically studied their own practice and how it affected the preservice teachers’ motivation and development. The target population was a cohort of 15 preservice students enrolled in a teaching methods in agriculture course at a large Midwestern land grant university. The preservice teachers were in their final semester of formal classroom instruction prior to starting a 12-week intensive student teaching experience. The course met for 16 weeks, three times per week, for two hours per day. The course was taught using three distinct units of instruction: (1) creating a positive learning environment through interest approaches, rapport-building, expectations, and classroom and student management strategies; (2) teacher–directed approaches to teaching using primarily behavioral and cognitive instructional strategies; and (3) learner-centered approaches to teaching using constructivist and social cognitive instructional strategies. The teacher educator modeled teaching strategies as examples for the preservice teachers during each unit. For example, the teacher educator used interest approaches to get to know learners and establish rapport to teach students about creating a felt need and establishing rapport. A pivotal day in the course involved preservice teachers identifying their personal epistemology and how it informed their preferred view of learning. Using a graphic organizer, cases, and interactive discussions, preservice teachers were asked to
reflect and determine which view of learning represented their personal epistemology: (1) behavioralism; (2) cognition; (3) social cognition; and (4) constructivism.

Throughout the second and third unit in the course, preservice teachers were asked to critically reflect on the assumptions underpinning the teaching methods they would choose to use in their microteaching lessons. The second unit of instruction offered preservice teachers teaching strategies that were based on behavioral and cognitive (deductive) assumptions of teaching and learning. The teacher educators–researchers acquainted preservice teachers with these traditional teaching strategies, including direct instruction, the problem-solving approach to teaching, illustrated lectures, supervised study, and the Socratic method. Again, class periods were designed and presented by the teacher educators–researchers to model specific examples of eight different teaching methods that were based on behavioral and cognitive assumptions of teaching and learning. The third unit introduced preservice teachers to an unfamiliar pedagogy that were based on constructivist and social cognitive (inductive) assumptions of teaching and learning. During this unit, preservice teachers were encouraged to acknowledge the diversity of individual learners and design lessons that would accommodate different needs of learners. Furthermore, constructivist-learning theory was introduced that postulates learners who actively construct meaning around phenomena and inductively learn concepts through real-life experiences. Given this assumption, preservice teachers were encouraged to help learners conceptualize content using teaching methods such as the project method, simulations, problem-based learning, cooperative learning, and peer learning.

Throughout the semester, students were assessed on their daily participation, individually written student reflections, authentic course assignments, and student-developed and delivered microteachings. The first microteaching (between 20 and 60 minutes in length) was conducted in a real-world setting with another preservice teacher. The second and third microteachings (25 minutes in length) were conducted individually in the teaching methods classroom in front of their peers. The final microteaching (full classroom period in length) was conducted in the real-world setting (e.g., high school classroom).

Mixed methods were used to collect the data from the 15 preservice teachers enrolled in the teaching methods course. Methods from post-positivist, positivist, and interpretivist stances were used to increase the validity of the findings through data triangulation. Data collection points included: (1) a semi-structured interview, which was conducted six weeks into the course after the first microteaching experience; (2) mid-term student feedback session that used open-ended questions and informal conversations with students regarding how students thought the class was meeting their needs as learners; (3) a semi-structured interview conducted after students completed their fourth individual full-length instructional sequence; (4) open-ended questions and written reflections administered throughout the course; and (5) a posttest questionnaire. On the posttest, preservice teachers self-identified their motivation as students within the context of the teaching methods in agriculture course using the Motivated Strategies for Learning Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1991). Four motivation factors (intrinsic goal orientation, extrinsic goal orientation, task value, students’ perceived control of learning beliefs) were measured at the completion of the 16-week course. A 6-point summated rating scale was used to identify students’ motivation to learn (1 = strongly disagree; 2 = moderately disagree; 3 = slightly disagree; 4 = slightly agree; 5 = moderately agree; 6 = strongly agree). The posttest instrument was pilot-tested in a similar college course in a different discipline. The reliability coefficients for the variable of student motivation in a previous cohort
were (a) 0.80 (4 items) for mastery goal orientation; (b) 0.68 (4 items) for performance goal orientation; (c) 0.82 (6 items) for task value; (d) 0.84 (4 items) for control of learning beliefs; (e) 0.75 (5 items) for critical thinking.

The quantitative data from the posttest questionnaire were entered into SPSS and analyzed using descriptive statistics. Domains of related items were summated. Frequencies, means, and standard deviations were calculated. Because of the nature of the mixed methods approach, the emergent qualitative data were scrutinized and correlated using open-coding followed by axial coding. Pseudonyms of participants were used with direct quotes. The researchers served as the instrument with an emic view. In an effort to increase the credibility and reliability of the study, the graduate student researcher reflexively situated herself in the study by identifying her roles and how her background may have influenced the research study (Johnson & Christensen, 2004): (1) former student in the course; (2) future career and technical educator in agricultural and environmental sciences; (3) former agricultural education high school student; and, (4) concerned member of the agricultural education community regarding the preservice teachers limited diversity and resistance to change. Additional steps were taken to maximize trustworthiness and believability including daily critical reflections and evaluations of researcher’s personal engagement with the participants, peer-debriefing conferences with the teacher educator, retaining empathic neutrality in interviewing situations, and striving to retain context sensitivity and a holistic evaluative perspective (Johnson & Christensen, 2004).

Findings

Four major themes were found that indicated the nature and degree rural, Midwestern preservice teachers were willing to change within the context and natural treatment of a university-based teaching methods course in agricultural education that modeled learner-centered teaching methods. Preservice teachers were unwilling to alter or change their methods of teaching to encompass a larger subset of learner-centered teaching methods because of: (1) their conventional beliefs of teaching based on past experiences in teacher-directed learning contexts; (2) personal epistemologies of teaching and learning; (3) lack of motivation; and, (4) unwillingness or difficulty encountered to self-reflect upon their learning experiences in the teaching methods course.

Preservice Teachers’ Past Experiences

Past belief-forming experiences played major roles in how preservice teachers approached their knowledge development about teaching and learning. Preservice teachers were greatly influenced by (1) extensive personal experience in agricultural education classrooms as high school students, and (2) numerous leadership and public speaking experiences associated with extracurricular youth development clubs and activities. Many preservice teachers were heavily influenced by their personal experiences in high school agricultural career and technical education programs. For most preservice teachers, the level of influence that past experiences in career and technical education had on their decisions started with their career choice. When surveyed, preservice teachers (N = 12) largely stated that their decision to become professionally involved in the teaching profession started with their high school career and technical teacher or experiences that stemmed from opportunities revolving around that influential teacher. In the cohort of preservice teachers (N = 14), all but one of the preservice teachers had participated in an agricultural education program as a high school student (µ = 3.2 years, σ = 1.38 years). Two-
thirds of the preservice teachers participated all four years in a high school agricultural education program. In addition to career choice, when it came time for preservice teachers to learn pedagogical strategies they again relied heavily on remembering classroom experiences they had encountered during their secondary education. Repeatedly preservice teachers commented, “that’s not the approach I had when I was in high school” (Bill). At other times in the semester preservice teachers indicated that because the particular learning technique that was being presented in class did not match up with their previous experiences they were unwilling to even think about the proposed teaching strategy and its potential impact on learners. Preservice teachers were also prone to using particular activities such as illustrated lecture, and group work because “I had done it before when I was in high school” (Cheryl). By relying on past classroom experiences, preservice teachers were generally assuming the goal of their education was to propagate their experiences for their future students. In addition to classroom familiarity, preservice teachers also were supported by their experiences in youth organizations and subsequent leadership responsibilities.

For many students experiences in career and technical education are not solely regulated to classroom experiences. High school agricultural education programs provide students opportunities to develop their leadership and apply career skills through an extracurricular youth development club. The cohort averaged 3.7 years (σ = 2.19) of participation in the career and technical student organization (CTSO) for agriculture students known as the FFA. Two preservice teachers in the teaching methods course did not participate in the FFA organization. Three preservice teachers reported seven years (four in high school and three after high school) of experience in the FFA. This is the maximum number of years students can be FFA members. Further, students can serve in leadership positions as officers in the FFA. Forty percent (N = 6) of the preservice teachers held leadership positions above the chapter level in the FFA organization. Four of the 15 preservice teachers were section FFA presidents and two other preservice teachers were section FFA officers. A section FFA officer coordinates sectional FFA activities. A section usually consists of seven to ten chapters in a geographic area.

Leadership development experiences in the FFA also made preservice teachers feel that they were able to teach. Due to past experiences speaking in front of groups of people, preservice teachers reflecting on their first micro-teaching experience in the real world felt confident in their abilities to teach others. One recounted, “I don’t have any troubles standing up in front of people and talking as much as I can” (Wade). This statement implies a particular belief framework from which Wade is measuring his success as a teacher. He believed that teaching is little more than presenting oneself in front of an assembly of people and disseminating information. Gabe, a confident individual who had numerous leadership responsibilities across campus, provided an additional example, “If it was up to me, I just would have walked in the classroom and said, “Hey I’m Mr. (teacher’s name) and here’s what we’re doing today-1, 2, 3.” Both preservice teachers implied their beliefs about teaching and learning were a result of past personal experiences. They also believed they should be the sole directors of instruction.

**Personal Epistemology**

Preservice teachers’ personal epistemology, when deeply rooted in behavioralist and cognitivist assumptions, hindered preservice teachers’ willingness to change. Preservice teachers who espoused teacher-directed views of learning expressed the teacher educator’s learner-
centered teaching methods were in conflict with their learning. Gabe provided an excellent example of this phenomenon by explaining his frustration with planning a constructivist lesson when he strongly identified having behavioralist assumptions of teaching and learning. He shared, “It forced me to kind of go outside of my comfort zone to a great extent, although I fought it until wit’s end and I still will to this day.” Gabe obviously resisted what he saw as a difference in his preconceived notions of classroom instruction. Other preservice teachers expressed they were confused about how their personal epistemology shapes their teaching methods. Cheryl explained, “I don’t like to be the only one that sits up there and talks and just tells them [students]. I like to hear some of them interacting back. I like students that think of their own ideas, but at the same time, I still kind of want to be the one leading the class.” This confusion frustrated Cheryl who shared, “I didn’t really enjoy this class very much, I learned, but I didn’t necessarily like it.” Preservice teachers, when faced with conflict between what they saw working well in classes (in Cheryl’s case interacting with others) and what preservice teachers were accustomed to a teacher’s role being (leading the class), were disillusioned and frustrated.

This interplay of preservice teachers finding themselves as teachers and learners coupled with being challenged in a new way of thinking, both critically and from a different view, tended to “send sparks flying” as one preservice teacher stated. Often, the majority (73 %) of preservice teachers in the class who identified with behavioral and cognitive approaches to teaching and learning (teacher-directed methods) tended to invalidate and discard the learner-centered concepts and strategies presented to them. At the same time the smaller number (27 %) of student teachers who identified with constructivist and social cognitive assumptions tended to be less frustrated with the course content. Regularly, preservice teachers sought to categorize methods as “good or bad” teaching. One preservice teacher implied that learners were encouraged to “adapt over to the purely constructivist side,” suggesting that singular teaching methods should be used in a classroom, thus negating the need for a variety of methods used in classroom instruction.

Preservice teachers in the course struggled to see beyond their personal concepts of good and bad teaching toward a new approach of intuitive, multi-methods teaching. Bill seemed to see his classmates very clearly. He explained, “instead of seeing the concept, there were individuals that were taking it very personally.” During a classroom exercise the teacher educator introduced the “7 why approach”. The “7 why approach” encouraged students to think through a problem by repeatedly asking strategically placed “why’s?” seven times into classroom discussion. Bill noticed that preservice teachers “were offended by it because nobody’s ever asked them seven why’s in a row” to stimulate thinking. Bill defined the situation as “touching a nerve” and concluded that it “really stimulates thinking.” He further quoted, “instead of leaving class saying, “Wow, that was a great example of the concept,” there were individuals that left class and one that said, “Man, what an asshole! He wouldn’t leave me alone. Why, why, why.” The teacher educator added a supplementary quotation by stating, “I wasn’t attacking them personally. I was demonstrating another way to teach, to get people stirred up and think.”

Preservice Teachers’ Motivation

Students learn more when they are motivated. In the quest to engage preservice teachers in a journey towards changing and broadening entire belief schemas and subsequently pedagogical practice, preservice teachers must possess an impulse or encounter a stimulus to
move towards the goal. Preservice teachers generally lacked motivation and thus encountered a barrier to change. A majority of the preservice teachers (N = 8) had low scores on the MSLQ in both categories of intrinsic and extrinsic motivation. More than half of the students felt little to no need to learn the material in the course. Specifically, less than half (N = 7) of the students reported they were intrinsically driven to learn from the class, and only 27% (N = 4) of the preservice teachers were identified as being extrinsically motivated. Gabe, for instance shared, “I had no felt need to learn in the course,” and Bill declared, “I don’t have any reason to want to learn.” Felt need is an important part of any learning exercise, especially when learner-centered instructional methods are used. As the name implies, learner-centered instruction is highly dependent on the learner being engaged as an active participant. Daily, preservice teachers, one semester prior to student teaching, were generally unenthusiastic learners in the teaching methods course.

A learner’s evaluation of how interesting, how important, and how useful a course is to their real life is an important factor in their satisfaction with a learning task. Several preservice teachers (N = 11) acknowledged that they recognized the validity of course topics and assignments in the teaching methods course. While students felt the course content was relevant, preservice teachers did not believe that their personal efforts to learn the material presented in class would necessarily move them towards their goals of personal growth and development. Many preservice teachers felt they personally had little control or responsibility for their own learning. Only three students acknowledged that they were autonomous in their development as future guiders of instruction. Nancy described her classmates saying, “I feel like they want to know the stuff [course materials], but when it comes down to the work, they don’t really want to do the work.”

Not only did a majority of preservice teachers struggle with their own personal motivation to learn teaching methods, they also had difficulty identifying strategies to motivate their students. This was of particular need because of preservice teachers’ role in recognizing and planning motivational strategies in their lessons for their students. For example, Adam orchestrated his first micro-teaching at a local urban high school. He and a colleague were responsible for 20 minutes of instruction for 30 freshman high school students during a homeroom period that was scheduled before lunch. While teaching a lesson on leadership, Adam was perplexed why a short lecture, followed by an activity dealing with marshmallows, did not engage students like he had hoped. He was more willing to dismiss the failure of his lesson because the homeroom period in which he was teaching was scheduled before lunch, which normally is set aside for an un-graded period, rather than his planned lessons inability to engage learners through triggering their motivation. Adam was not alone in his struggle to recognize and capitalize on his students’ motivation. During the first round of interviews, which followed preservice teacher’s first micro-teaching in the real world, all preservice teachers (N = 15) grappled with understanding student motivation. Some preservice teachers were able to identify factors of motivation in their students, but were unable to identify strategies to take advantage of their students’ motivation. Other preservice teachers were not able to identify intrinsic or extrinsic motivational triggers in their teenage students.

Cognitive Engagement through Reflection

The ability and willingness to cognitively engage in a process of self-reflection is a critical necessity in learning to teach. The student-centered teaching methods course required
preservice teachers to think deeply about teaching and learning. Cheryl recounted, “This course makes my head hurt. I have to think about everything.” Jackie also shared, “this course was so different than other education courses we have taken. It was the first time we had to actually think about teaching and learning.” Real-world microteachings were designed to engage students through simulation, as an opportunity to be critically reflective on their teaching. Personal interviews and classroom discussions illustrated that preservice teachers had difficulty critically assessing their performance as learners and as teachers on a daily basis. Jackie recalled her experience teaching a floriculture lesson. She recounted, “I taught and the kids weren’t receptive at all. I was really wondering, ‘Why aren’t they receptive?’ I was teaching about flowers! Isn’t it interesting? I don’t understand.” Jackie, in this instance was attempting to differentiate and question her teaching practices using the needs of her learners as a measure. In considering the cohort of preservice teachers, they vaguely defined their successes, failures, and possible methods for improvement following real-world micro-teachings when questioned in the classroom and during individual interviews. Preservice teachers ($N = 14$) often recounted with, “I had never really thought about how I could have done that better” or when asked why they had chosen a particular teaching method, answered with “I don’t know.”

Critically thinking about newly presented information is also a mechanism for change. Lydia was able to reflect on the need for critical thinkers in the classroom. She shared, “you really have to think about everything and REALLY think about it and apply it because if you just come to class, you’re not going to learn it.” At the completion of the course Tori was able to connect the idea that the teacher educator “didn’t tell us [all the details about teaching] and we had to figure it out”, and furthermore that “a lot of times people didn’t see it and they didn’t want to see it.” Another preservice teacher observed that the teacher educator “requires, I think, things that people aren’t used to” (Marcus). Despite this voiced need for critical and reflective thinkers, classroom observations and quantitative data found that little more than half (53%) of preservice teachers were willing to use the class as a means to critically think about teaching and learning in the course. Half of the group of preservice teachers did not use the course as a starting point to try and develop their own ideas about teaching and learning nor did they use the information presented in class to help them develop personally or professionally.

Conclusions, Implications, & Recommendations

Preservice teachers in a learner-centered teaching methods course resisted learning methods that were different than their own ways of knowing and learning because of their staunchly held beliefs formed by youth experiences in agricultural education. Similarly, Dees (2005) found his preservice teachers from rural communities fought and discredited new ideas in his college course and Klein found the same resistance in preservice mathematics teachers. This conclusion was also congruent with Lortie’s (1975) apprenticeship of observations and Pajares’ (1992) review of beliefs. Pajares postulated that preservice teachers rely heavily on their past experiences as students to form their personal epistemologies of teaching and learning. Despite the initial disturbance of incongruent views of teaching and learning as expressed by preservice teachers’ frustrations, teacher educators should encourage preservice teachers to see the safety, yet shortcomings of their dominant assumptions of teaching and learn as well as their apprenticeships of observations (Lortie, 1975). Furthermore, teacher educators should tailor instruction assuming that preservice teachers have a complex history of experiences and should be encouraged to bring their beliefs about teaching and learning to a conscious level of understanding how it shapes their thinking about teaching and learning.
Preservice teachers were unmotivated to learn and struggled to reflect critically on their own experiences. Microteaching experiences in the real-world did not create a felt need for preservice teachers, nor did the real-world prompt preservice teachers to engage in critical self-reflection of their teaching. Similar to a conclusion by Mueller and Skamp (2003), this study concluded that it is difficult for preservice teachers to become reflective practitioners able to determine effective instructional practices to accommodate plurality of learning views held by learners. Teacher educators should plan instructional strategies to promote diversity of thought and action. Further, teacher educators should also pay special attention to structuring reflective processes and activities critical to an engaging, task-valued, real-world professional development experience.

This study raises a number of questions that warrant further investigation to help develop preservice teachers to meet the changing demands of a new era in career and technical education. First, this study should be replicated with different preservice teachers, different teacher educators, and in different undergraduate learner-centered teaching methods courses. Further study should investigate preservice teachers’ interpretations because of three incongruencies: (1) course content that was incongruent to their schemas of teaching and learning, (2) learner-centered teaching methods used in a college classroom that were uniquely different than other college courses; and, (3) modeled teaching methods that were incongruent with preservice teachers’ views of learning and perceived as irrelevant to future applications as a teacher. How would preservice students’ interpretations of experience, motivation, and cognitive engagement be different if they were taught learner-centered teaching methods in a teacher-directed college classroom? Further inquiry is needed to understand why preservice teachers struggle to reflect critically on their teaching and learning experiences. Is phenomena attributed to preservice teachers’ motivation or cognitive abilities? Preservice teachers’ schema and embedded traditions should be studied regarding their influence on motivation and cognition.

References


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