Preservice Teachers’ Epistemological Beliefs, Attitudes, and Behaviors Regarding Instructional Planning

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Introduction & Theoretical Framework

Instructional planning is a major factor to effective teaching (Burns & Lash, 1988) and plays a critical role in teaching and learning (Clark & Dunn, 1991). Teacher knowledge influences how teachers plan for instruction (Burns & Lash). Knowing this, we also know that sometimes teachers do not plan (Martin, 1990; Young, Reisner, & Dick, 1998), nor is there strong evidence that teachers (or even superior teachers) actually use planning processes that they are taught (Martin, 1990; Young et al., 1998). The impact of teaching methods instruction on preservice teachers’ instructional planning is questionable because teachers typically do not follow the planning procedures acquired in their teacher education programs (Clark & Yinger, 1979; Kagan & Tippins, 1992; Peterson, Marx, & Clark, 1978; Reynolds, 1993). In addition to teacher knowledge, teacher beliefs play an important role in how one learns, plans, and implements practice (Pajares, 1992). Teachers with similar knowledge may teach in different ways. The powerful effect of beliefs helps to understand and predict how teachers make decisions (Ernest, 1989). In an effort to find more effective ways to prepare teachers, teacher preparation programs cannot afford to ignore the beliefs of entering student teachers (Pajares, 1992). Therefore, teacher educators need to focus on teacher thinking and beliefs to facilitate change in the teaching-learning process (Fang, 1996).

Planning is important because it forms an ideal base for analyzing views and practices and for generating educational innovation (Brickhouse, 1993; Duschl & Gitomer, 1991; Peterson et al., 1978). Teacher educators have similar goals in mind when educating future teachers in how to plan lessons, yet there are apparent discrepancies between the theories that student teachers are taught in university courses and the classroom practices that are modeled for the student teachers with regard to instructional planning (Morin, 1993). A lack of familiarity with the processes of instructional planning can inhibit student teachers’ ability to manipulate content to orchestrate a meaningful lesson within the context of their individual classrooms (Koeppen, 1998). As such, student teachers may become too focused on the content and be too busy worrying about how they are “supposed” to plan, rather than finding what works best for their own classroom and meeting the needs of their students.

During the school year, teachers plan in accordance with the period they intent their planning to cover and the volume of material to be programmed (Boudah, Deshler,
Schumaker, Lenz, & Cook, 1997; Clark & Peterson, 1986). Instructional planning is a highly personal process. Indeed, teachers report that they rarely write down their plans, except when they are required for administrators or needed for substitutes (McCutcheon, 1980). However, teacher educators devote a considerable amount of time teaching instructional planning, in part, because experienced teachers identify instructional planning as an important and integral part of their professional lives (Clark & Lampert, 1986; Clark & Yinger, 1987). Student teachers plan differently than experienced teachers. Student teachers tend to have isolated, individual lesson plans (Koeppen, 1998), whereas, unit planning is one of the most frequent and important tasks for teachers (Sanchez & Valcarcel, 1999). Student teachers naturally have problems with planning and self-confidence during their student teaching experiences (Freiberg, 2002). It is important for student teachers to have the opportunity to develop their own planning methods. As a result, the nature and process of planning may be more easily learned through study and experience of than through any particular method (Clark & Peterson, 1986).

The conceptual framework of this study was based on the work of Bandura’s (1986) social cognitive theory. Bandura posits that a person has beliefs and personal characteristics that influence, and can be influenced by, the environment and their perceptions and behaviors. Bandura described this three-way relationship between personal factors, environmental factors, and behaviors as reciprocal determination. The three components of the triadic reciprocal deterministic system interact as people have life experiences, which shape their development as a teacher. This study was based on the premise that personal epistemology of both the preservice teacher (personal factor) and teacher educator (environmental factor) would influence preservice teachers’ attitudes and performance of instructional planning (behaviors). The theoretical framework was informed by epistemological beliefs, teacher attitudes, and teacher development.

Beliefs play a critical role in defining behavior and organizing knowledge and information (Bandura, 1986; Nespor, 1987; Schommer, 1990). Beliefs, particularly epistemological (Hofer & Pintrich, 1997), filter the perception and interpretation of new knowledge and phenomena, which influences how teachers learn to teach, plan to teach, make instructional decisions, and interact with students (Borko & Putnam, 1996; Richardson & Placier, 2001). Pintrich (1990) recommended that research studies be undertaken to discover how epistemological beliefs influence the learning of student teachers in teacher education programs. To study the epistemological beliefs of student teachers, epistemological beliefs were conceptualized as having behavioral or constructivist assumptions of teaching and learning.

Student teachers with behavioralist assumptions view learning and teaching as a process of transmitting information from the teacher to the learner (Hartley, 1998). Behavioralist assumptions of teaching and learning are evident in agricultural education. For example, Newcomb, McCracken, Warmbrod, and Whittington (2004) purport that effective learning is based on (a) reinforcement; (b) teacher-directed learning; and, (c) practice. Moreover, Hedges (2000) defined teaching as directing the learning process.
based on four steps: (a) selecting/presenting stimuli; (b) receiving stimuli; (c) perceiving stimuli; and, (d) acting on perceptions. Clearly, the agricultural education profession has espoused behavioralist assumptions of teaching and learning, and many teacher educators use these textbooks to teach preservice teachers to effectively teach students and manage classrooms (Ball & Knobloch, 2003).

Student teachers with constructivist assumptions view teaching and learning as a process of constructing meaning through complex, challenging learning environments, authentic tasks and shared responsibility in a learner-centered teaching environment (Driscoll, 1994). There has been an increase in the use of the constructivist-learning models in K-12 classrooms (Howard, McGee, & Schwartz, 2000; Prawat, 1992). Many teachers are in favor of adopting constructivist instructional approaches but are unsure of where to begin (Howard, McGee, & Schwartz, 2000). The instructor and student should engage in an active dialogue so that the instructor can translate information to be learned into a format appropriate to the learner’s current state of understanding. It is also important that curriculum is organized in a spiral manner so that the student continually builds upon what they have already learned (Bruner, 1966).

Agricultural education’s foundation of teaching and learning was developed on constructivism—which was known as experiential learning (Knobloch, 2003) and inquiry learning (Parr & Edwards, 2004). Buriak, McNurlen, and Harper (1996) posited that teachers and teacher educators in agricultural education should develop instructional plans designed to teach concepts through authentic experiences, rather than “compartmentalized, content-driven models” of instruction. Wardlow and Scott (2000) suggest that student teachers generally prefer learning by constructivist approaches compared to traditional approaches, and Buttles, Graham, and Hieronimczak (2003) suggest that teaching methods in agricultural education have shifted toward following more constructivist principles.

A classroom is a complex culture (Lieberman, 1992), in which teachers and students explore, negotiate, and assemble personal knowledge, beliefs, and interpretations of their environments through ongoing epistemological processes (Von Glasersfeld, 1987). Beginning teachers translate their experiential worlds of the classroom into a unique view of what constitutes good teaching and learning. They define their philosophy of teaching based on these beliefs and experiences. Teachers plan their teaching based on knowledge and previous teaching experience (Aikenhead, 1984). For this reason, teacher educators should be aware of student teachers’ belief systems and teach in order to help students of different beliefs than themselves be more comfortable in the classroom and with their own teaching. Moreover, by examining how student teachers view learning and teaching through a focus on their beliefs and classroom actions, greater insight may be gained into the kinds of experiences on which teacher education programs should be built to promote better teaching experiences for their students (Simmons, Carter, & Emory, 1999).
Purpose & Research Questions

The purpose of this study was to describe student teachers’ epistemological beliefs about teaching and learning at two land-grant universities who were taught teaching methods by teacher educators with different epistemological beliefs of teaching and learning. Further, the researchers sought to determine the differences in student teachers’ attitudes toward planning and planning experiences of those whose beliefs were congruent and incongruent with their teacher educators’ instructional planning approaches taught in a teaching methods course. The research questions that guided this study were: (1) Did student teachers have better attitudes toward instructional planning when their epistemological beliefs were congruent with the epistemological beliefs of the teacher educator? (2) Did student teachers plan lessons the way they were instructed in the teaching methods course when their epistemological beliefs were congruent with the epistemological beliefs of the teacher educator?

Methods and Procedures

This was a descriptive study that used a static group comparison design with 36 student teachers at two universities. The two university-based teaching methods courses in agricultural education were taught by teacher educators with different epistemological beliefs of teaching and learning. The preservice teachers ($N = 20$) at Eastern University (EU) were taught by a teacher educator with behaviorist assumptions of teaching and learning. The preservice teachers ($N = 16$) at Western University (WU) were taught by a teacher educator with constructivist assumptions of teaching and learning. Contrastly, the instructional methods, planning approaches, instructional planning assignments, and student teaching internships were considered the non-manipulated, natural treatments (Trochim, 2000). Students completed the teaching methods courses in (EU = Spring, 2002; WU = Fall, 2002) preceding their student teaching internship (EU = Fall, 2002; WU = Spring, 2003). Students at each university were compared based on their epistemological beliefs of teaching and learning. There were 10 behaviorists and 10 constructivists at Eastern University. Comparably, there were 10 behaviorists and 6 constructivists at Western University.

Comparisons were not made between the two programs. Student teachers were compared on three selection variables and selection was not considered a threat. Behaviorist and constructivist student teachers at both universities were not different on their teaching methods or student teaching grades. However, the behaviorists had higher cumulative grade point averages (GPA) than the constructivist student teachers at Eastern University. The reverse was true at Western University. The constructivist student teachers had higher GPA’s than their behaviorist peers. A majority of the student teachers from EU (60%) and WU (56%) grew up in rural communities, and none of the student teacher grew up in urban communities. The majority of the EU (65%) and WU (75%) had four years in a high school Agricultural Education program or involvement on the FFA. Fifteen percent of the EU student teachers and 25% of the WU student teachers had no years in a high school Agricultural Education program or involvement on the FFA. In regard to college leadership, 55% of the EU student teachers held a leadership
position in college, and 81% percent of the WU student teachers held a leadership position in college.

The researchers used mixed methods from positivist, post-positivist, and interpretivist stances to triangulate the data. Student teachers completed a posttest questionnaire upon completion of the student teaching internships at each university. The questionnaire had three sections consisting of epistemological beliefs, attitudes of lesson planning, and open-ended questions about instructional planning. One-hour focus group interviews were conducted at each university after the student teachers completed their student teaching internships and within five days of the posttest questionnaire. Student teachers split into two focus groups at each university based on their epistemological beliefs of teaching and learning. Comparisons were made between behaviorist and constructivist student teachers at each university. Focus group interviews were conducted to gain a more complete understanding of the student teachers’ perceptions, attitudes, and interpretations of experiences of the methods course and student teaching experiences. Krueger (1994) suggested that focus group studies have the ability to uncover explanations of attitudes and perceptions, and that focus groups be homogenous and include four to 12 participants to encourage discussion and be manageable. All four focus groups fell within this range. Two 60-minute focus groups were conducted for each class for a total of four, one-hour focus group interviews. The four focus group interviews were conducted by the researcher. Interviews were audio taped and transcribed, serving as a primary data source. Field notes and reflective journals were considered as secondary data.

The independent variable—student teachers’ epistemological beliefs of teaching and learning—was measured using an existing scale of 32 items (Wardlow & Scott, 2000). Wardlow and Scott (2000) developed the items based on Brooks and Brooks’ (1993) work and a review of literature in effective teaching. The items used a 6-point summed rating scale to measure behavioral and constructivist beliefs of learning: (1) strongly disagree, (2) moderately disagree, (3) slightly disagree, (4) slightly agree, (5) moderately agree, and (6) strongly agree. All 32 items were not used for this study because “while the items on the instrument may be representative of some of the major constructs in constructivist teaching, the instrument may not be a good discriminator to force students into agreeing with one or the other” (Wardlow & Scott, p. 635). For this reason, the researcher chose six behavioralist questions (1, 2, 12, 15, 17, and 24) to determine the epistemological belief orientation of the student teachers using the following ranges: 1.0–3.3 for constructivist and 3.4–6.0 for behaviorist. Participants’ responses to open-ended questions were used to triangulate on determining epistemological belief orientations. The instrument was reviewed by a panel of teacher educators from several institutions for face and content validity. The revised instrument was then test-retested which yielded a coefficient of stability estimate of 0.65. Reliability was then established by Wardlow and Scott (2000) as having a coefficient of 0.95. The posthoc reliability coefficient for epistemological beliefs in this study was 0.70.

The two dependent variables were student teachers’ attitudes of instructional planning and instructional planning behaviors. Attitudes of instructional planning were measured using a researcher-constructed instrument. The instrument consisted of 19
statements that measured attitude of planning using the following scale: (1) strongly disagree, (2) moderately disagree, (3) slightly disagree, (4) slightly agree, (5) moderately agree, and (6) strongly agree. Face and content validity was established through a field test \((N = 21)\) and an expert panel review. Reliability was established through a pilot test and the Cronbach alpha coefficient was 0.88. The post-hoc reliability for attitude of lesson planning for this study was 0.83.

Instructional planning behaviors were measured through five self-reported items created by the researchers: (1) number of unit plans developed during student teaching; (2) number of different lesson plans written per week; (3) number of unit and daily lesson plans used from another source; (4) number of hours spent creating lesson plans per week; and, (5) number of minutes spent reviewing each lesson before teaching class. The open-ended questions and focus group questions used to gather qualitative data were developed by the researchers based on several research studies (e.g., Burns & Lash, 1988). The questions used to gather qualitative data assessed their style of planning, attitude of lesson planning, if the student teachers planned the way they were instructed to plan, whether their planning was congruent with that of their teacher educator, and how much planning the student teachers did. These questions were reviewed for face and content validity by the panel of experts.

The methods of planning taught by the teacher educators were determined through analyses of the teacher educators’ syllabi from the methods classes as well as observations of teaching as a former student and researcher. The epistemological beliefs of the two teacher educators were reflected in how they taught planning in their teaching methods courses. The treatment occurred naturally and was non-manipulated, and it had two levels: behavioral and constructivist methods of instruction and instructional planning approaches taught. The teacher educator at Eastern University had 10 years of university teaching experience compared to four years for the Western University teacher educator. Both teacher educators were high school teachers prior to teaching at the university level. The two teaching methods classes were similar on two-thirds of the content and assignments. However, the two courses were different in the teacher educators’ epistemological beliefs of teaching and learning and the nature of the methods and assignments they used to teach instructional planning (e.g., behavioralism (EU) vs. constructivism (WU); skills development vs. cognitive development; directed vs. facilitated learning process; emphasized systematically, detailed plans vs. conceptually designed plans; deductive approach vs. inductive approach to instructional design and planning; assessments were driven by behavioral objectives vs. learning outcomes of authentic performances).

The quantitative data collected using the posttest questionnaire were entered into SPSS and analyzed using descriptive statistics. Participants whose responses were incomplete were automatically excluded in the data analysis procedures. Domains of related items were summed. Frequencies and percentages were rounded to the nearest whole number and means and standard deviations were rounded to the nearest \(1/100^{th}\). Effect sizes were calculated to determine the difference in groups. Effect sizes were calculated using Cohen’s (1988) \(d\): (a) small effect size: \(d = .20\); (b) medium effect size:


$d = .50$; and, (c) large effect size: $d = .80$. Medium effect sizes were interpreted as being important (Fraenkel & Wallen, 2004).

Open-ended questions and focus group interview data were collected and interpreted using qualitative methods from a post-positivist and interpretivist epistemological stance (Lincoln & Denzin, 2000). The written responses to the open-ended questions was informed by a post-positivist epistemology. The focus group interviews were informed by an interpretivist epistemology because of the interactive dialogue and probing used to encourage deeper understanding in co-creating the data. Paper, pencils, and highlighter markers were used to help create organizers to code and summarize the data. Emergent qualitative data were scrutinized and correlated using open-coding followed by axial coding of the major concepts, central ideas, or related responses (Glesne, 1999). For the qualitative data, trustworthiness and believability were established through the use various methods and procedures (e.g., peer debriefing, transcriptions of audiotapes, triangulation with quantitative data, process trail, content trail, and use of logical methods and procedures) to ensure credibility, transferability, dependability, and confirmability (Donmoyer, 2001; Lincoln & Guba, 1985).

Findings

For the first research question, student teachers’ attitudes toward instructional planning were assessed and reported by epistemological beliefs that were congruent and incongruent with the teacher educators’ epistemological beliefs at each university. The EU behavioralist student teachers slightly agreed (4.56; SD = .59) that they had positive attitude of lesson planning, and the EU constructivist student teachers slightly disagreed (3.84; SD = .46) that they had a positive attitude of lesson planning. The effect size between the EU behavioralist and constructivist student teachers in attitude of lesson planning was large ($d = 1.03$). The WU student teachers behavioralist group slightly disagreed (3.89; SD = .71), while the constructivist student teachers slightly agreed (4.16; SD = .79) that they had a positive attitude of lesson planning. The effect size between the WU behavioralist and constructivist student teachers in attitude of lesson planning was medium ($d = .53$).

To triangulate with the quantitative data, qualitative data were also collected in regard to attitude of lesson planning. The majority of the EU behavioralist student teachers had a positive attitude toward lesson planning except for the unit planning. This probably occurred because it forced them into a more constructivist orientation of having to look at the bigger picture of planning. The EU constructivist student teachers disliked the details and specificity of how they were taught to plan, and felt that their creativity was stifled by the behavioralist style of planning, which caused them to have more of a negative attitude of the planning instruction. Comparably, the WU behavioralist student teachers did not in general have a positive attitude toward their planning instruction and desired a different way that would have been more objective and practical to their teaching style. They had trouble understanding the constructivist planning and therefore became frustrated with planning. The WU constructivist student teachers liked the way they were taught to plan and had a positive attitude towards their experience; although
they did desire more authentic, complex teaching experiences that would give them opportunities to practice their teaching skills.

For the second research question, student teachers’ instructional planning behaviors were assessed and reported by epistemological beliefs that were congruent and incongruent with the teacher educators’ epistemological beliefs at each university. The EU behavioralist student teachers slightly agreed (4.20; SD = 1.14) that they planned lessons how they were instructed to plan, while the constructivist student teachers moderately disagreed (2.60; SD = 1.58). The effect size between the EU behavioralist and constructivist student teachers in planning lessons how they were instructed to plan was large (d = .89). The WU student teachers behavioralist group moderately disagreed (2.90; SD = 1.72) that they planned lessons how they were instructed to plan, while the constructivist student teachers slightly disagreed (3.17; SD = 1.47). The effect size between the WU behavioralist and constructivist student teachers in planning lessons how they were instructed to plan was small (.37).

Qualitative data from the focus groups and the open-ended questions were also collected to understand student teachers’ instructional planning behaviors. The majority of the EU behavioralist student teachers used the systematic format that had been taught to them in their teaching methods class. They were very detailed in describing the planning exactly how they had been taught to do it in their methods class. The EU constructivist student teachers took three different kinds of approaches (e.g., objective-handouts-review, unit-student interest-daily plan, content outline-teaching materials), with none of them mentioning the format that had been taught to them in their teaching methods course. The WU behavioralist student teachers used many different planning styles, more than any other group (e.g., outline-mental plan-loose daily plan, resources-materials, systematic, lesson book formats). They tended to move between very loose plans and very detailed plans, trying to figure out exactly what would work for them. The WU constructivist group had the least variance in lesson planning formats (e.g., content-conceptualize-student-centered, unit-create-daily format). The majority of the student teachers used the planning in the way that they had been taught to plan by conceptualizing information and making a content plan and seemed very comfortable with this style of planning.

Student teachers were also asked to describe how they planned (Table 1). Behavioralist student teachers from both universities generally felt more prepared with a plan, wanted to learn a systematic approach to planning, and enjoyed more detailed daily plans versus unit planning. Constructivist student teachers from both universities thought that the detailed planning hindered their creativity, wanted to learn a broader and conceptualized approach to planning, and enjoyed more content unit plans than detailed daily plans.
Table 1
Summary of Student Teachers’ Planning Experiences by Epistemological Beliefs

<table>
<thead>
<tr>
<th>Student Teachers</th>
<th>Planning Experiences</th>
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</table>
| Behavioralist    | - Felt more prepared with a plan  
|                  | - Having a plan made them feel more confident to teach  
|                  | - Did not use unit plans very much; liked detailed daily plans  
|                  | - Mentioned the importance of objectives  
|                  | - Were less student-focused  
|                  | - Wanted to learn a systematic approach that could be applied to their classrooms  
| Constructivist   | - Detailed planning hindered creativity  
|                  | - Did not use specific daily plans; used unit plans  
|                  | - Thought more broadly and conceptualized content  
|                  | - Were more student-focused  
|                  | - Wanted to be put in real-life situations where they would have to think and plan quickly with little time to prepare  

The following table (Table 2) shows the planning experiences of student teachers that were congruent or incongruent with their teacher educators’ epistemological beliefs. Student teachers who had epistemological beliefs congruent with their teaching methods teacher educator tended to plan like they had been taught to plan, thought that planning increased their confidence in teaching, and enjoyed the process of learning to plan. Student teachers who did not have congruent epistemological beliefs with their teaching methods teacher educator wanted more flexibility in planning and abandoned the planning approach that they were taught, felt that planning hindered creativity, and were frustrated with the process of learning to plan.

The student teachers were also asked the amount of instructional planning they conducted during their internships (Table 3). The EU behavioralist student teachers constructed more lesson plans (13.7 different lesson plans per week) and took more lesson plans from other sources (2.6 per week). EU constructivist student teachers constructed more unit plans (6.5 unit plans per week), took more unit plans from other sources (1.4 unit plans per week), and spent more time planning lessons (9.9 hours per week). The WU behavioralist student teachers constructed less lesson plans per week
Table 2
Summary of Student Teachers’ Planning Experiences based on Epistemological Beliefs being Congruent or Incongruent with their Teacher Educators

<table>
<thead>
<tr>
<th>Student Teachers</th>
<th>Planning Experiences</th>
</tr>
</thead>
</table>
| Congruent        | - Planned like were instructed to plan (at least at first)  
|                  | - Planning increased their confidence in teaching  
|                  | - Enjoyed the planning process and learning how to plan  
|                  | - Sought out and developed a more personal style of planning based on the planning they had been taught  
|                  | - Mentioned the importance of objectives |
| Incongruent      | - Wanted more flexibility (other approaches) in planning  
|                  | - Were frustrated with the planning process  
|                  | - Abandoned the planning approach learned in teaching methods within the first week of student teaching (if tried at all)  
|                  | - Sought out more personal style of planning different from what they were taught  
|                  | - Felt planning hindered creativity  
|                  | - Mentioned importance of objectives  
|                  | - Either thought that learning to plan was a waste of time or still did not understand how they were supposed to plan  
|                  | - Wanted the opportunity to develop their own plans using their preferred approach |

(8.7 lesson plans per week), took more lessons from other sources (8.4 lesson plans per week), and spent more hours (10.2 lesson plans per week) creating lesson plans. The WU constructivist student teachers constructed more lesson plans per week (13.7 lesson plans per week), took fewer lesson plans per week from another source (1.4 lesson plans per week), and spent fewer hours creating lesson plans (8.8 hours per week).

Table 3
Amount of Instructional Planning Conducted During Student Teaching

<table>
<thead>
<tr>
<th>Items</th>
<th>EU-B (n = 10)</th>
<th>EU-C (n = 10)</th>
<th>WU-B (n = 10)</th>
<th>WU-C (n = 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of unit plans constructed</td>
<td>4.8</td>
<td>6.5</td>
<td>6.9</td>
<td>5.7</td>
</tr>
<tr>
<td>No. of different lesson plans constructed/week</td>
<td>13.7</td>
<td>10.7</td>
<td>8.7</td>
<td>13.7</td>
</tr>
<tr>
<td>No. of unit plans obtained from another source</td>
<td>0.4</td>
<td>1.4</td>
<td>3.4</td>
<td>1.2</td>
</tr>
<tr>
<td>No. of lesson plans taken from another source/week</td>
<td>2.6</td>
<td>1.9</td>
<td>8.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Hours per week spent creating lesson plans</td>
<td>8.0</td>
<td>9.9</td>
<td>10.2</td>
<td>8.8</td>
</tr>
<tr>
<td>Minutes spent reviewing lesson plans before class</td>
<td>11.0</td>
<td>12.6</td>
<td>8.5</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Note. EU teacher educator = behavioralist; WU teacher educator = constructivist.
Conclusions, Implications, and Recommendations

There were two key findings. First, student teachers who had similar epistemological beliefs as their teacher educators had more positive attitudes toward instructional planning, planned lessons based on how they were instructed to plan, had more confidence to teach when they had an instructional plan, enjoyed learning the instructional planning process, and created more lesson plans than their peers who had different epistemological beliefs. On the other hand, student teachers who had different epistemological beliefs than the teacher educators did not create lesson plans based on how they were taught, felt hindered by planning, wanted more flexibility in planning, were frustrated with learning the instructional planning process, created more unit plans, obtained more units plans from another source, and spent more hours creating lesson plans than their peers who had different epistemological beliefs.

This conclusion supports the literature that epistemological beliefs of teaching and learning influence how student teachers process and organize information and interpret their learning experiences (Borko & Putnam, 1996; Richardson & Placier, 2001). This study brings some clarity to the literature regarding why student teachers adopt and implement the knowledge and skills they were taught in their teacher education programs. Student teachers who view teaching and learning similarly, and think like their teacher educators are more likely to implement the instructional planning skills they were taught in a teaching methods course. Further, this phenomenon appears to be based student teachers’ cognition and motivation. Student teachers who cognitively understand the instructional planning process are more likely to engage in the process in the field. Moreover, they appear to be motivated by having positive experiences and attitudes toward instructional planning. In contrast, student teachers who do not have similar epistemological views of teaching and learning struggle to understand the instructional planning process or do not agree with the process, and in either case, get frustrated. Moreover, these student teachers appeared to spend more time in the planning process and were more likely to find existing plans rather than create their own. Perhaps preservice teachers do not implement what they are taught (Kagan & Tippins, 1992; Reynolds, 1993) when they do not have similar epistemological beliefs, or “think like,” their teacher educator. Teacher educators should consider the personal epistemologies of their students and they help them develop as future teachers.

Second, student teachers with behavioralist views of teaching and learning felt more prepared with a plan, wanted to learn a systematic approach to planning, and enjoyed more detailed daily plans versus unit planning. In comparison, student teachers with constructivist views of teaching and learning liked to think that the detailed planning hindered their creativity, wanted to learn a broader and conceptualized approach to planning, and enjoyed more content unit plans than detailed daily plans. This finding supports the literature that one’s epistemology shapes how they think about planning (PaJares, 1992; Von Glasersfeld, 1987). Teacher educators should try to help preservice teachers understand the multiple views of learning and how these different views inform how teachers plan and organize their instruction. Further, teacher educators should try to accommodate their students multiple views of learning by guiding them through both
behavioral and constructivist instructional planning processes. Although the students will be mixed in their reactions to the approaches, preservice teachers would be able to adapt a planning approach to fit their way of thinking, and hopefully plan their instruction to accommodate multiple views of learning.

Because instructional planning is a personal process, further inquiry should study lesson planning and plans as a methodology to understand student teachers’ epistemological beliefs and schema. Researchers should study how personal experiences influence personal epistemology and teaching practices of preservice teachers. Further, student teachers’ instructional plans should be studied and simulated recall should be used to understand their thought processes regarding planning. Further research should be conducted to understand how epistemological beliefs, cognitive engagement, and motivation are interlinked and influence teacher development. Future studies should explore and seek to understand the motivational processes that student teachers experience when they learn how to plan and teach if their epistemological beliefs are different than that of their teacher educator.

References


