

Internal Dilemmas and External Burdens: Exploring Student Teacher Lesson Planning

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Abstract

Learning to teach is challenging as preservice teachers apply a multitude of knowledge and skills in complex situations. Preservice and student teachers struggle to effectively use metacognition and lack the ability to address numerous motivational factors in their learning. We do not know how student teachers utilize these ideas while lesson planning. This multiple case study explored student teacher lesson planning motivation, knowledge transfer, and metacognition. The themes of teacher identity development, giving permission to overcome stress and procrastination, learning to adapt lessons, and stress impacting lesson planning emerged. The findings indicate student teacher growth throughout the practicum and provide insights for teacher educators to enhance motivation, metacognition, and knowledge transfer. We recommend teacher educators consider how they intentionally incorporate knowledge transfer and metacognition in their programs. Further, teacher educators should conceptualize how they scaffold lesson planning skill development, clearly communicate expectations, and use lesson plan templates to help address student teacher stress and procrastination. Future research should continue to explore ways to improve metacognition and knowledge transfer within the student teaching field experience and during lesson planning.

Introduction

Learning to teach is an ongoing process that begins for many within a university teacher preparation program (National Research Council, 2010). Within these programs, teacher educators are tasked with

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preparing competent educators ("Introduction - Council for the Accreditation of Educator Preparation," 2015). Hammerness et al. (2005) highlight preservice teachers' challenges such as the problem with complexity as teachers shuffle between multiple outcomes that change based on student needs and unanticipated tasks. Preservice teachers also face the *two-worlds problem*: the disconnect between the academic space of teacher preparation and the context-dependent classes taught in schools (Feiman-Nemser & Buchmann, 1985).

Preservice teachers also struggle with *enactment*, typically lacking the needed understanding of the context to know exactly how to act in the moment. Relatedly, preservice teachers are also building their *adaptive expertise*, or the ability to complete activities without thinking about how to do them (Bransford et al., 2005). Preservice teachers are also influenced by their preconceived notions about how learning and teaching work based on their experiences as students, also known as the *apprenticeship of observation* (Lortie, 2020). As the struggle to act, lack of expertise, and preconceived notions play with and against each other, preservice teachers can experience frustration and stress. One area where preservice teachers grapple with the intersection of these concepts is lesson planning.

Lesson planning, a foundational task for educators (Kang, 2017) and is challenging for novice teachers due to a lack of experience and the lack of ability to draw from multiple knowledge sources (Ball et al., 2007; John, 2006; Kang, 2017). A mismatch exists between the linear approach taught by faculty and how student teachers plan their lessons (Ball et al., 2007; Kang, 2017). This leads to tension between university expectations during student teaching and the reality of planning, further illuminating the *two-worlds problem* (Beckmann & Ehmke, 2023; John, 2006). Additionally, preservice teachers can experience a range of frustrations regarding lesson planning such as deciding how to being the planning process (Schmidt, 2005), writing and aligning learning outcomes and assessments (Enama, 2021), planning and incorporating student-centered activities (Santoyo & Zhang, 2016), and the timing and sequencing of learning activities (Gülten, 2013).

One way to assist preservice teachers as they develop as novice educators and lesson planners is to promote metacognition (Hammerness et al., 2005). Metacognition allows for meaning-making (Darling-Hammond & Bransford, 2005), is tied to adaptive expertise (National Research Council, 2000) and is critical for the transfer of learning (National Academies of Sciences, 2018). However, previous research has highlighted that preservice teachers may have a narrow focus on metacognition (Bowling et al., 2022), which can hinder decision making and enactment. Further, motivational factors such as procrastination, stress, and avoidance behaviors of preservice teachers can influence performance (Akdemir, 2019; Bekdemir, 2010; Klassen & Chiu, 2011; Özer & Yetkin, 2018) but have not been fully explored in their relation to planning, metacognition, the transfer of knowledge, and enactment.

Learning to teach is difficult and preservice teachers often struggle with the complexity to teach (Hammerness et al., 2005). Additionally, preservice teachers can experience frustration completing complex tasks related to teaching and learning such as lesson planning (Ball et al., 2007; John, 2006; Kang, 2017). While Grossman (1992) posits novice teachers can improve with the right kind of support without waiting to master certain aspects of teaching, there are no empirical studies or best practices for teacher educators to use in supporting novice teachers during student teaching, including around a core task of teaching, lesson planning. This investigation could bring important insight into how student motivation, stress, and metacognition are experienced during student teaching and lesson planning.

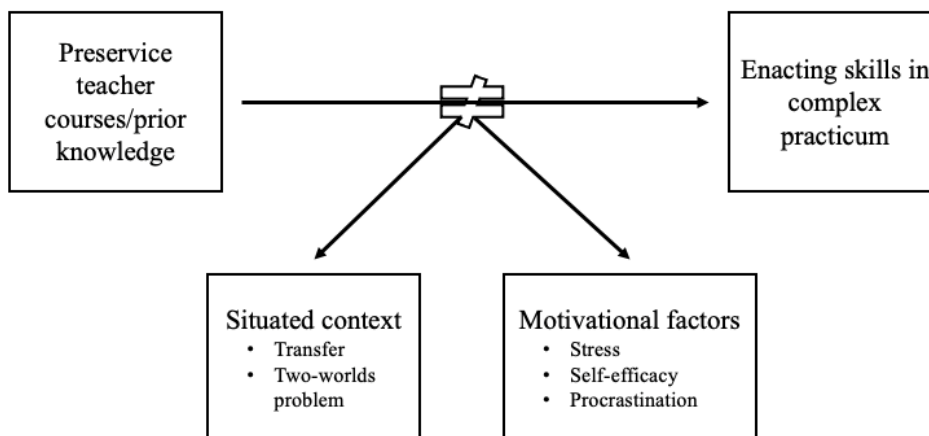
Conceptual Framework

The conceptual framework guiding this study focuses on two facets which intervene between preservice preparation coursework and enactment: the situated context of the practicum and motivational factors (see Figure 1). Building on the challenges with learning to teach, we recognize that learning is a

complex developmental process influenced by social and cultural aspects and requires the learner to transfer their knowledge to different contexts (National Academies of Sciences, 2018). This view of situated learning (Lave & Wenger, 1991) recognizes that knowledge is utilized differently depending on the circumstances and where learning is a social endeavor (Lave, 1988). It is important for teacher education to focus on the context in which teachers' expertise will be developed. This approach assists with the transfer of knowledge and allows students to move beyond theoretical ideas of teaching (Darling-Hammond et al., 2005) and helps to address the *two-worlds problem* (Feiman-Memser & Buchmann, 1985) where student teachers are asked to inhabit two distinct domains.

Figure 1

The Situated Context and Motivational Factors Related to Preservice Teacher Skill Enactment Conceptual Framework



Within the motivational factors, we focus on three main aspects: stress, self-efficacy, and procrastination. Stress can be defined in several ways (Geving, 2007) as it differs in how each individual characterizes it, although often tied to a negative consequence (Danyluk, 2013). The student teaching practicum is connected to high levels of stress, worries, and anxiety (Paker, 2011). Student teachers have experienced stress due to needing to meet program requirements, being unsuccessful (Paker, 2011), the workload and routines (Danyluk, 2013), as well as their future teaching responsibilities (Thieman et al., 2014). However, evaluation (Paker, 2011) and lesson planning (Dunyluk, 2013) are two of the most stressful parts of student teaching.

This study was also guided by teacher efficacy which is teacher's belief in their abilities to complete a teaching-related task (Tschannen-Moran et al., 1998). Teacher efficacy builds on Bandura's (1986) work on self-efficacy. A lack of efficacy can impact whether an individual will stress over, delay, or complete a task. For instance, if individuals do not believe a task is aligned with their ability to complete it successfully, they often will not attempt it (Bandura, 1986). Teacher self-efficacy is tied to teacher effectiveness and career commitment (Knobloch & Whittington, 2003; Tschannen-Moran et al., 1998). Specifically, agricultural education student teachers face the lowest levels of self-efficacy during the midpoint of their experience, with the highest level after student teaching (Harlin et al., 2007).

Procrastination is a "trait or behavioral disposition to postpone, delay, and avoid performing tasks or decisions" (Milgram & Tenne, 2000, p. 41). According to Milgram and Tenne, there are four different types of procrastination: academic (i.e., relating to assignments), life routine (i.e., difficulty in managing

personal life), decisional (i.e., struggle in making minor decisions), and compulsive (i.e., decisional and task procrastination by the same person). Teachers often delay tasks due to disliking the task and experiencing negative emotions (Laybourn et al., 2019). However, task aversion is not based solely on the task but depends on the individual's perception (Laybourn et al., 2019). Procrastination is also linked to stress (Laybourn et al., 2019) and low self-efficacy (Gün et al., 2020; Laybourn et al., 2019).

Purpose and Research Questions

This study explored student teacher lesson planning motivation, knowledge transfer, and metacognition during student teaching. The central question was, what is student teacher lesson planning motivation, knowledge transfer, and metacognition, during student teaching?

Methods

For this qualitative, exploratory study we utilized a multiple case study design (Merriam, 1998; Yin, 1994). While we did diverge from the more postpositivist replication approach of Yin (1994), using multiple cases allowed us to analyze the unique context for each program and then explore convergent findings across cases. We utilized an interpretivist epistemology (Crotty, 1998) because we believed the students constructed their knowledge as they interpreted their student teaching and program experiences. Additionally, we identified our positionality related to the phenomena. We are all previous secondary agriculture teachers and current faculty and/or graduate students and we acknowledged our perceptions to allow for data emergence.

We purposively sampled the cases from two agricultural education teacher preparation programs. The first case was given the pseudonym of Great Lakes University, and the second case was given the pseudonym of Great Plains University (see Table 1). Both cases were large Midwestern universities, with four-year undergraduate agricultural education teacher preparation programs, with a 14-week student teaching capstone occurred during the spring senior semester. Both programs developed and required the use of their own lesson plan template which could be altered partway through student teaching with approval. The Great Lakes University student teachers were required to submit lesson and unit plans and received overall grades from a cooperating educator and university supervisor. The Great Plains University student teachers were required to submit lesson plans, unit plans and additional program documents and received overall grades from the cooperating educator and university supervisor. The bounded case for each program consisted of the 2023 spring, senior student teachers (Great Lakes University $n = 13$; Great Plains University $n = 18$) with eight participants (Great Lakes University $n = 5$; Great Plains University $n = 3$).

Table 1

Case Descriptions of Student Teaching Requirements

	Great Lakes University	Great Plains University
Student Teaching Grade Requirements	Submission of lesson and unit plans, overall grade from cooperating educator and university supervisor	Submission of lesson, unit plans and additional program documents, overall grade from cooperating educator and university supervisor
Lesson Plan Template	Program developed, required, can be altered partway through student teaching with approval	Program developed, required, can be altered partway through student teaching depending on university supervisor

Multiple data sources were collected for each case. For each case, the primary data sources included focus groups, field notes, and memos. The ancillary data sources included the required lesson plan template and student teaching handout/expectations. Three semi-structured focus groups were conducted at each site: one three weeks in, one at the halfway point, and one at the conclusion of student teaching. Each focus group lasted approximately 45 minutes to one hour and were conducted via Zoom. Example focus group questions included: a) what was your most motivating experience during lesson planning so far; b) hypothetically, if we could remove your greatest stressor as you lesson plan what would that be and how would you feel; and c) describe your procrastination process/avoidance techniques when you engage in stressors. We used constant comparative analysis (Saldaña, 2013) to allow for data emergence and we adjusted focus group questions through the duration of the study to align with the emerging data. For example, as decision fatigue started to emerge as a potential motivational factor, questions regarding how student teachers make lesson planning or teaching method decisions were added and emphasized in the focus groups.

Data sources from each case were analyzed separately to allow for the emergence of the phenomena within each case. Data analysis consisted of a three-stage coding process where we began with line-by-line coding, then combined like codes into categories, and then allowed for like categories to emerge into themes (Saldaña, 2013). Lastly, themes from each case were then analyzed for similarities and differences for the cross-case analysis. Following Merriam's recommendations, we utilized multiple strategies to uphold internal and external validity and reliability (1998). To ensure internal validity and reliability we conducted participatory research, long-term investigations, member checks and peer examinations, triangulated our data sources, maintained an audit trail, and disclosed our biases. To enhance external validity we used thick, rich descriptions, documented typical or modal categories, and used a multi-site design.

Findings

Five themes emerged as we sought to answer the research question, "what is student teacher lesson planning motivation, knowledge transfer, and metacognition, during student teaching?" For Great Lakes University, two specific themes were constructed: *teacher identity development* and *giving permission to overcome lesson planning stress and procrastination*. Three themes emerged from Great Plains University: *learning how to adapt lesson plans*, *stress impacting lesson planning*, and *positive influences of lesson planning*.

GREAT LAKES UNIVERSITY

Theme 1: Teacher Identity Development

It emerged that the student teachers developed their teacher identity as they progressed through their student teaching experience. It is important to note that their teacher identity was almost nonexistent at the beginning of student teaching, Stephanie discussed at the beginning of student teaching how she struggled with what seemed like juggling two personalities. She stated:

The more time I spend with the students, and the more I think I just let myself be myself, instead of just trying to be like having Stephanie and Miss [last name] be two different personalities and have Stephanie and Miss [last name] be one personality.

Then, their teacher identities started to form at the halfway point, and finally began to solidify at the conclusion of their experience. At the end of the experience Stephanie reflected on how her confidence and teacher identity changed over time and now has a positive career outlook:

Going in, I felt like I was unprepared in that I was probably going to be bottom of the barrel and stuff but now I feel I can confidently go into a classroom in the next coming school years and have a successful experience and be a successful teacher.

Part of the phenomena we sought to explore included the use of metacognition during student teaching. While the student teachers certainly learned a lot about themselves as potential future educators, they were not explicit in discussing how they explored and better understood their own learning. When prompted about their identity or learning they often turned towards outward experiences related to their students or lesson planning.

Subtheme 1: Developing Connections with Students

The student teachers strongly acknowledged the importance of building connections with their students. However, they described how they struggled to develop student connections at the beginning of student teaching. Stephanie laid out her early struggles with students, she stated, “The kids like verbally said like, ‘I literally hate you. And I hate this class’. So, I’m like ‘great’. So, it’s been really difficult”. While the other participants did not experience this level of difficulty when connecting with students, they did express their inability early on to explore students’ interests and needs to cater lessons to them. In contrast, Steve reflected:

In general, I think having the relationships built early on has really helped me and I’ve kind of always been seeing the real side of my students and it makes me sad to leave in all honesty because I do feel that we’ve grown enough, and I’ve taught enough myself that they feel like my own students.

He was able to connect with his students sooner than his peers and felt the success of those relationships even at the halfway point of student teaching.

Student connections began to improve throughout student teaching as the student teachers’ identities began to form and then solidify. This was a cyclical process where improved student connections helped the student teachers start to visualize themselves as teachers and as their teacher identity formed, they felt more confident to build student relationships. Further, the student teachers were motivated by these relationships, where “student engagement” was motivating for Jennifer and Stephanie said:

...seeing the students like what I was teaching and wanting to know more about what I was teaching, made it fun. I wanted to finish the lesson plan and then teach the lesson to see the reactions of the students.

Building student connections and the development of their teacher identity helped to improve their lesson planning confidence and motivation and reduce stress.

Subtheme 2: Confident Lesson Planning

Much like their teacher identity, the student teachers struggled with lesson planning early in their experience but saw improvement as they progressed. It is important to note that the student teachers did not have access to state mandated or recommended curriculum/lesson plans. Often the cooperating educators will provide the student teachers with lessons that the educator has made or purchased curriculum. However, it is ultimately the decision of the student teacher on if they will use the provided resources or find and/or create their own. At the beginning of the semester the student teachers struggled to create lessons, make teaching methods decisions, and gather and alter resources.

Early on the student teachers discussed that they struggled with feeling satisfied with the lessons they created. So much so that they would create a lesson, to then delete it and start over again. Jennifer said, "...the lesson I had planned for, it is heavy lecture based. I was like, no scrap the whole thing. We broke out into groups, made post-it posters, like the large ones, and had like a mind map discussion". Halfway through student teaching, the struggle with satisfaction started to decrease as their confidence and identity increased. Students observed that they were not constantly changing lessons, had less procrastinating due to dissatisfaction, and were changing lessons to adapt to the context rather than their lack of confidence. Lesson planning dissatisfaction was nonexistent by the end of student teaching for these participants. Furthermore, the student teachers felt overwhelmed early on as they felt they had to learn the content they were teaching right along with the students. Stephanie reflected, "I've literally had to look up the subject before I teach, did not learn it in college. Like water quality right now, I'm teaching two classes about water quality, and I've literally had to go to Google for everything". Kassie agreed, "I probably put like 3 hours into a lesson plan but after like typing it all out and everything. I probably put 6 extra hours into just knowing the content... I'm reading an anatomy book to learn about anatomy, physiology". Being overwhelmed by learning lesson content diminished around the midpoint of student teaching as the student teachers started to enhance their resource gathering and altering skills.

The most prevalent lesson planning struggle that the student teachers discussed was gathering and altering resources to use in their lessons. At the beginning of student teaching, they struggled to find resources to use when developing lessons, activities, or assessments. While the students might have had access to resources from their cooperating educators, they did not use them early on and they relied heavily on internet resources. Kassie discussed how frustrating it was to search on Google when one source would provide information but then another source would contradict what the first source said. Stephanie added that she could not find engaging resources on Google but found technical content. This left her having to significantly alter the resources to make them more engaging and this creative exercise consumed a lot of her lesson planning time. It was not until the midway point of the experience that student teachers began to feel more confident in their resource gathering and altering abilities. There was a simultaneous shift in their confidence to a) find internet or industry-based resources and alter them to fit into their lessons, b) ask their cooperating educators and other colleagues through a Facebook group for specific resources, and c) better evaluate the quality of a resource. Jennifer explained, "I will go through the Ag Ed Facebook discussion and just look through all the different activities, different teachers do, and I'm like, oh, that's really cool, but I'm going to use it in this way instead of XYZ". Then Steve who was not present for the first focus group but was for the midpoint discussion, agreed:

If I had to say anything [was easier], it would be finding the resources to use for the lesson plans and to use in class. And I've had the added benefit that my cooperating educator does have access to most of the CASE curriculum. And so that's been helpful to be able to utilize and modify that information. And then also, she also worked with another teacher who's now out of the industry, but they created a lot of units together. So, I've been able to view those and just kind of modify to my standards as to what I want to talk about in this short amount of time that we're there.

Steve went on to describe how even evaluating internet resources was easier at that point and he could even tell how long he would have to dedicate to altering a resource in order to use it effectively. The student teachers' confidence grew in this area so much that gathering and altering resources was not brought up as a current concern during the final focus group.

Additionally, they described how they struggled to make decisions related to teaching methods and that this struggle remained steady through the midway point of student teaching. This struggle centered around their lack of confidence to pick what they perceived as the "correct" method for the lesson content and methods that the students would connect with. Tara described how she felt she had to lecture more

because the students were not used to learning through either problem-solving or inquiry methods. She struggled to develop what she perceived as engaging lessons and felt demotivated by being handcuffed to a single teaching method. She further discussed that she was struggling to find methods that met both her personality and the students' needs. However, as the student teachers began to see themselves as teachers and as they better understood their students, they felt more comfortable selecting teaching methods.

Subtheme 3: Outside Tensions Decreasing

It emerged that the student teachers experienced stressors from outside sources during student teaching. At the beginning of the experience, the student teacher felt very anxious by the requirements set out by the teacher preparation program and the university. In particular, they were very frustrated and overwhelmed by the lesson plan template required by the teacher preparation program and the university assessment required for licensure. The university assessment was a one-time teach, re-teach evaluation with 7 written reflective prompts which included student assessment data analysis and interpretation. The students expressed stress and frustration leading up to and while completing the evaluation, but this was relatively short lived once the assessment was completed. The major outside stressor for the participants was the program required lesson plan template. This template contained 14 different components which were all required to be completed for a grade. Towards the mid-point of the semester, if deemed appropriate and approved by the university supervisor and cooperating educator, the template could be reduced, altered, or changed completely. It was not until the template was changed that the outside tension was decreased.

Up until the template could be altered or removed, all participants felt stressed or overwhelmed by the template. Many participants experienced a Jekyll and Hyde duplicity reaction to the lesson plans, feeling like the template was pulling their emotions in two separate directions. Student teachers discussed feeling stressed as they balanced the overwhelming time demands of the template with the benefits, they believed the template provided. Tara indicated, "That lesson plan template has a lot of stuff that can be useful to know, but it is in a format that drives me insane". Stephanie described, before hinting at the stressful amount of time required to complete the template, "But I feel like if I didn't have the template to tell me. Okay, you gotta have objectives. You gotta have like an assessment, both summative and formative it wouldn't be as well as they are". While others acknowledged the benefits of the template, Jennifer described the negative impact on her confidence and motivation the template had:

I feel like I'm planning lessons four times for three classes. Like I'm getting the content, thinking about where I need to go with it, building the activities for my students and *then* writing it out again [on the template] but feeling like a failure because I am falling behind with the lesson plan submissions. I am not failing in the classroom; I feel like I am failing planning.

It is important to note that the student teachers also felt pressure and stress because the required lesson plans had to be submitted for one of their final student teaching grades. Following the removal of the program required lesson plan template Steve discussed feeling caught up and could tackle other responsibilities because he was dedicating less time to planning through the new template. Jennifer agreed, even discussing how the new template helped her decrease her lesson planning procrastination to the point that she looked forward to the process. While tensions decreased as the lesson plan template were modified, the participants felt continued tensions throughout from balancing work, life, and outside family responsibilities.

Another outside tension expressed by the student teachers was balancing their work, life, and family responsibilities. While the other tensions subsided during student teaching, these tensions never fully went away. It is worth noting that this tension was less visible in the first focus group when compared to the second and third. During the second focus group the students acknowledged that they saw the need for and importance of rest, recovery, and family time but found it difficult to balance these with the time required

to plan lessons and fulfill their other teaching and advising responsibilities. Additionally, at the end of student teaching, they recognized the importance of family and rest but reflected on the fact that they felt like they used these as procrastination outlets. The student teachers described feeling self-shame when they used their life outside of school to relieve stress but avoid work-based activities. Steve described how his cooperating educator who had a spouse and children, modeled work-life balance well for him and he felt like he was able to achieve a more balanced experience because of this.

Theme 2: Giving Permission to Overcome Lesson Planning Stress and Procrastination

The student teachers began student teaching by experiencing much lesson planning decision fatigue and stress. The inability to make clear and confident decisions led to the student's experiencing procrastination. It was not until they gave themselves permission to not be perfect, use predeveloped resources, and seek support that they were able to cope with the stress and their procrastination subsided.

Subtheme 1: Decision Fatigue to Procrastination

Since the student teachers rarely used turnkey, pre-made lesson plans the students were faced with numerous decisions as they developed their daily lessons. The copious lesson planning and pedagogical decisions caused decision fatigue where they experienced stress when they faced a decision and then ultimately could not make the decision. The students then procrastinated lesson planning to avoid the decisions they could not make. Stephanie faced an unreasonable number of decisions when planning just one single lesson:

I know what I'm teaching, I know what the objectives are, but how am I going to assess? What actual content am I going to teach? Right now, I'm doing diseases and I just found out yesterday there are 205 animal diseases. Which of those 205 am I going to teach my students?... And that's honestly made me procrastinate making the lesson because I'm just so, "What do I teach and then where do I get the information to teach that?"

Jennifer experienced procrastination when she could not make all of the small decisions required to create a lesson, "So I think that's where a lot of my procrastination also came in, is just not being able to put all the pieces together of the puzzle until I did and then it was no time at all". The decision fatigue that was experienced was very prevalent during the beginning of student teaching and through the midway point. As their lesson planning confidence increased, as they sought support, and the modification of the lesson plan template helped to decrease the decision fatigue.

Subtheme 2: Permission to Cope

As the student teachers were facing continued lesson planning stress, they ultimately gave themselves permission to find ways to cope with the stress. Halfway through the student teaching experience, the student teachers gave themselves permission to not be perfect and that the lessons that they created would be good enough and would still be successful. As stated by Tara, "...sometimes not everything is going to work out perfectly and I accept that". While the student teachers decided they did not need to be perfect, they were also giving themselves permission to seek help from their cooperating educator and peers to cope with stress. The student teachers realized that they could not succeed on their own and sought help from the cooperating educators related to classroom and behavior management decisions and to use their lesson planning resources. Whether it was help with a specific student or developing more of their long-term skills, the student developed efficacy from their cooperating educators support, "Something that has gotten easier for lesson planning for me is assessments... And a lot of that has been talking to my cooperating educator and be like, what do you do?" [Tara]. Additionally, the students reached out to their peers for guidance and resources and became more comfortable connecting with and

reaching out to other in-service teachers to start to build their network. Steve described his confidence to seek help from other in-service teachers, “I think it's just grown with confidence and asking my cooperating educator, how should I word this if this is the question I'm asking for?”. Simultaneously, the student teachers were also starting to transfer the skills they learned from their preservice teacher courses into their actions during student teaching. However, the students were not transferring the knowledge behind the skills they were using. For example, multiple participants discussed the need to use formatives for each objective because they were “pounded into their heads” during their preservice courses. However, they never discussed the *why* behind their teaching actions, just that they *should* be doing them.

GREAT PLAINS UNIVERSITY

Theme 1: Learning How to Adapt Lesson Plans

The lesson planning process during student teaching depended on whether your cooperating teacher provided pre-existing lesson plans, either personally created by the cooperating teacher or Curriculum for Agricultural Science Education (CASE). Students like Sara, who had pre-existing curriculum, could progress through the process of lesson planning. In contrast, Rebecca, who did not have existing lesson plans to work from, fell behind in the lesson planning process compared to her peers.

Subtheme 1: Learned to Adapt the Process of Lesson Planning

Student teachers followed the adaptation patterns of their cooperating teacher at the start of the practicum. Sara related how they took everything their cooperating teacher gave them in terms of curriculum, including how that cooperating teacher adapted the curriculum. “She [cooperating teacher] already has all her adaptations that she wants made, made, and then when I grab it, she usually just tells me like, ‘I don't usually do this. I don't usually do that’.” Sara later described how the cooperating teacher and her would make these adaptations together. “Sometimes we'll skip an activity if it's not something that we have time for or we don't want to do. We collectively decide to just skip it so we can move on.” The cooperating teacher was mentoring them to develop more autonomy in lesson plan adaptations within the first month of student teaching.

Sara and Emily both talked about making an adaptation to the lesson plan strategy they learned in their preservice university methods course within the first weeks of student teaching. The student teachers were all trained on how to use the university suggested lesson plan template which would usually become 2–3-page document for each lesson. However, the student teachers were given a lesson plan notebook which encouraged them to plan in a more concise manner. This notebook style of a common tool for lesson planning by many teachers. Emily talked about using the notebooks rather than the university suggested lesson plan template. “That's really been working well for me.” The early adaptation of lesson plan format helped Sara and Emily cope with taking on more of the instructional duties as student teaching progressed.

Subtheme 2: Advantages to Adapting Preexisting Lesson Plans

There were advantages to having pre-existing lesson plans, such as the Curriculum for Agricultural Science Education (CASE), in student teaching. CASE curriculum was not a direct option for the student teacher. The cooperating teacher needed to be certified in CASE in specific content area(s) for CASE curriculum to be available for a student teacher. Typically, an agriculture teacher would have a few courses with an approved CASE curriculum as the training requires professional development and financial resources. Sara was teaching at a school which had CASE approved curriculum for more than one class. She had developed habits around lesson planning, mainly adapting CASE curriculum, 6-7 weeks into student teaching. Sara said, “I have a set date. I like to do them on Sundays the week before and just get everything down... could still work on that a little bit, but I feel like I've gotten better with setting

deadline...” Sara’s experience with utilizing a pre-existing curriculum for lesson plan creation and adaptations was not shared in the focus groups.

Rebecca did not have a cooperating teacher who utilized CASE curriculum nor have any pre-existing lesson plans to share according to her. The stress of creating curriculum for courses from scratch, textbooks, or resources found online was weighing on Rebecca. She was able to start the process but seemed to struggle finding time to finish plans. “I guess I’m behind on making my lesson plans on the [university suggested] template. I have all my stuff written down that needs to go into it. It’s just a matter of doing it.” Whereas Sara had curriculum to start with when lesson planning, Rebecca felt the strain of working on the computer for long periods of time. “I feel like I spend a lot of time on my computer, so when I get home at night, the last thing I want to do is be on my computer...” This stress led Rebecca to find her form of lesson planning as a coping mechanism. She did not utilize the university suggested template or a lesson plan notebook, rather she utilized sticky notes created the night before. “I’m lucky if I plan anything[ready]... I have a sticky note, the sticky notes that you can have on your computer, and I write those the night before and give myself the big picture for the day...”

Subtheme 3: Thinking about Students while Lesson Planning

The student teachers talked about connecting lesson planning to student learning in two ways beyond just content acquisition. First, student teachers talked about the stress of lesson planning for class with learners in various cognitive levels. Emily reported the following:

It just feels like I have students in 10 different places too. So that kind of affects my lesson plans as well, and that stresses me out because I have a solid plan down and I have one student who hasn’t turned in a single thing, and then I have one student has everything turned in and is ready for the next thing and I don’t have a next thing.

While this quote may seem like Emily is really struggling with this concept it is important to note two things. First, this was during the first focus group near the start of student teaching. She was going to stress about this because it is challenging. Second, Emily noticed the role that lesson planning played in this situation, as she was learning how lesson planning can play a role in these real-world classroom challenges.

The second concept student teachers connected to lesson planning was managing student behavior. Sara reported, “I try to put [behavior management planning] into my plans like, ‘Okay. If blank student does this, give them good praise or just give them a certain look...’ I try to put some notes in [the lesson plan].” Even Rebecca, who struggled to keep up with lesson planning echoed what Sara said in the focus group. “So, I’m trying to incorporate it into my lesson plan. I do want to make notes like Sara had just said like, ‘Keep an eye out for this student if they do this.’”

Theme 2: Stress Impacting Lesson Planning

The preservice teachers from Great Plains University experienced an abundant amount of stress from outside of their student teaching placement. This stress included the need to make money to live and the requirements placed on them from the university.

Subtheme 1: Stress Outside of School Create Distractions to Planning

The student teachers openly expressed the general stress they were feeling during student teaching. The stress was so great, that Emily felt overwhelmed:

I'm kind of overwhelmed when it comes to job stuff and trying to manage a classroom... while being an FFA advisor [Career and Technical Student Organization Advisor] ... and trying to figure out my own future while trying to get these kids a good quality education...

The stress that Rebecca was feeling was compounded by her cooperating teacher not having pre-existing lesson plans for them to utilize. She reported during the first focus group, "I'm going to be honest, I don't do a lot of lesson planning, so I don't know how to answer this question this far." Rebecca's stress was explained in more detail during the second focus group a month later. She was experiencing heavy financial stress. "I am extra broke right now, so I've been trying to work as much as I can, which also doesn't help. But... I need to eat and drive to survive, so I don't really have a choice." Sara reported the same financial stress during the third and last focus group. "I cry more now. I think a big thing for me... is the financial side of things. Because my card literally declined for a \$1.75." Rebecca reflected on the financial stress during the final focus group as well. "I think financially has been a big stressor, too, just not having any money. And then the school of education really tells you, you shouldn't have a job, but I've had a job."

Subtheme 2: Instruction on Lesson Planning Creating Barriers

A reoccurring topic for the student teachers was the negativity towards the university suggested lesson plan template. Student teachers learned that this template asks for more detailed than is typically expected from a teacher in the field. Emily's cooperating teacher told her as much. "I showed my cooperating teacher my lesson plan template, and she is like, 'You're not going to use that template when you actually go out and teach.' And I'm like, 'Then why am I learning it?'" Rebecca had a similar experience with the other teachers in her student teacher site. "I have been told by the whole entire PLC [professional learning community] team that I was never going to use that in my entire life." Even Sara had similar thoughts. "...Those professors said several times that... you're not going to use it forever. It's a good place to start... But I think the concern is, do I have to be using it right now?" The university template caused them stress for two reasons. They were unsure if switching to another lesson planning system would cause their grade to drop in student teaching and how to use another system. In the last focus group, the student teachers recommended that the university teach multiple ways to lesson plan.

Theme 3: Positive Influences for Lesson Planning

The student teachers talked about how their cooperating teachers were a positive influence in their efforts to improve on lesson planning and teaching. Rebecca had strong positive emotions towards her cooperating teacher:

We have PLC... on Monday... And they have to do a note to another teacher [expressing] why they're thankful for them that week. And [my cooperating teacher] gave me one of those, and he said for basically [he is thankful for me] admitting when I'm unsure of something. And that actually made me feel really good because it made me realize that I'm not scared to ask for help, especially in the things that I am stressed about like applying for jobs or doing my lesson plan or how my lessons are going. I'm okay to admit that I know that things aren't going well if they aren't, and that's helped me relax to realize that I can ask for help whenever I need it.

This was an important moment for Rebecca because she had openly discussed in the focus group how she struggled with having no pre-existing lesson plans from her cooperating teacher. Emily reported a similar positive interaction with her cooperating teacher. "She is lifesaving. She just gives me that voice of reason like, 'Girl, you're really overthinking this. You're doing just fine'."

Discussion

This multiple case study explored student teacher lesson planning motivation, knowledge transfer, and metacognition during student teaching. Overall, student teachers were influenced by motivational factors, like their students, during lesson planning while struggling with knowledge transfer and metacognition. Participants from both institutions faced stressed based motivational factors during their student-teaching experience that influenced their planning ability. They felt overwhelmed by outside motivational factors influencing their planning, including balancing school and life, and handling financial stressors, reflecting previous research (John, 2006; Kang, 2017). Additionally, the lesson plan template emerged as a contextual factor for both institutions was a source of stress as there was confusion over expectations and a lack congruence with what was being used by teachers. This finding corresponds to core research in the field (Ball et al., 2007; Feiman-Nemser & Buchmann, 1985).

Students were one of the main sources of motivation for the student teachers. The Great Lakes University group discussed the challenges with building connections and getting to know their students, however, as the semester progressed their relationships with students grew positively. The Great Plains University group specifically talked about their students influencing their planning as they considered the cognitive levels of the students and how they could build classroom management into their lessons. Student teachers were also supported in their motivations around lesson planning by their cooperating teachers, as well as teacher peers and in-service teachers, through helping them gain experience and confidence.

Student teachers from both institutions faced demotivational stressors during their student teaching experience that influenced their ability to plan. One of the main challenges for both sets of student teachers was adapting premade lessons and/or resources. Great Lakes University participants highlighted decisional procrastination strategies (Milgram & Tenne, 2000) due to decision fatigue, for instance, not knowing what to choose with so many choices, or because they wanted to have a “perfect” lesson. Both university participants felt overwhelmed with outside factors that influenced their planning including balancing school and life and handling financial stressors, which can indicate life routine procrastination (Milgram & Tenne, 2000). Additionally, the lesson plan template for both institutions was a source of stress as there was confusion over what was required and may affect their grade and the lack of connection with what was really being used by teachers. However, recognizing that the lessons did not need to be perfect and that they could adapt to the more formal way of planning using the university templates helped most of the student teachers cope with the stressors.

The student teachers struggled to effectively transfer previous knowledge or develop metacognitive skills to plan lessons effectively. Participants discussed knowledge transfer only regarding skills used in classes but never focused on the why behind using the skill. The depth of metacognition of participants were suppressed as seen in previous research (Bowling et al., 2022) and focused more on identity growth versus understanding their learning. Overall, the stress of student teaching and the mismatch between university expectations and reality inhibited metacognition and knowledge transfer which echo previous research on the challenges of learning to teach (Feiman-Nemser & Buchmann, 1985; Hammerness et al., 2005).

There are important implications to this data. First, student teachers are indicating the lesson plan template provided to them by the university was not grounded in the reality of teaching. Furthermore, there were multiple meanings for what one meant by “lesson plans.” For example, some lesson plan formats can look more like the unit plan outline utilized in preservice coursework, yet teachers in the field treat these as lesson plans. Some of the preservice teachers identified these issues as points of stress. The apparent lack of consistency between university expectations and resources versus real-world approaches to lesson planning seemed to inhibit the transference of learning between preservice course work and student teaching. The emergence of this disparity is an important first step as universities evaluate the lesson planning expectations placed on students. While outside of the scope of this study, this finding asks the

question of how universities can create scaffolded and rigorous lesson plan expectations that are aligned with the real-world practices of their cooperating educators. The lesson plan template and lack of clear expectations further catalyzes the two-worlds problem (Feiman-Nemser & Buchmann, 1985) in a way not previously discussed in research. Structured lesson planning without clear guidance kept the student teachers in limbo between trying to be successful students and addressing the reality and complexity of teaching. However, it is not likely that reducing lesson planning expectations would remove all the factors influencing student teaching stress. Further, it is unrealistic to consider or encourage the removal of all stressors during student teaching as some stress can cultivate growth and a complete lack of stress would not create a reasonable representation of early career in-service teaching.

Further influences of lesson planning stress and procrastination were unpacked which have implications for teacher preparation programs. Decision fatigue and a lack of confidence to alter lesson planning resources all negatively impacted student teacher stress and procrastination. While these implications are supported by previous research (Dunyluk, 2013), the nuance around the number of lesson planning decisions student teachers faced coupled with a lack of efficacy to alter resources to help reduce these decisions can help faculty develop and support decision making skills in their program. Lastly, student relationships emerged as a positive influence on teacher identity development, lesson planning decision making and stress. Taken together, teacher educators can more explicitly link these ideas which are not unfamiliar within teacher preparation programs, to theory and the reason why they impact planning.

Recommendations for practice include the need for teacher preparation programs to consider alternative approaches to the lesson planning process and expectations. This includes transparency about expectations of what the process and literal creation of lesson planning can look like in student teaching. This work would begin in the preservice course work by offering students the opportunity to work with various formats and alter various lesson planning resources with connections to how planning looks within an agricultural education program. The goal of this instruction should be focused on preservice students' efficacy of usage over detailed completion. Additionally, student teaching lesson planning expectations must be set and consider the reality of teaching to lessen the two-world problem and increase motivation and confidence. To do this, teacher preparation programs should consider how they scaffold lesson planning opportunities, the use of their templates, and expectations throughout their program. Further, teacher preparation programs need to be explicit when planning for and speaking about knowledge transfer and metacognition to help students better understand the importance of and strategies to support these processes (Azevedo, 2020). Further, teacher preparation programs should develop cooperating educator mentoring professional development which specifically highlights their role in helping student teachers increase knowledge transfer and promote metacognition. Lastly, faculty need to recognize the unique work-life balance and financial stress of student teaching and how it placed some student teachers in a survival mentality and inhibited their ability to practice metacognition about their lesson planning strategies. University supervisors and cooperating teachers need to be able to respond to this type of stress and let student teachers know that they are supported, or student teachers may struggle through their experience.

The findings also have implications for future research. This study should be replicated to include additional teacher preparation programs to maximize variability in lesson planning requirements, length of program, and length of field experience. Additionally, longitudinal studies should be conducted to explore knowledge transfer and metacognition throughout students' tenure in a teacher preparation program. Further, researchers should explore needed coping strategies to address stress, decision fatigue, procrastination, and work-life balance during student teaching. The data also has implication for how researchers conceive different types of stress during student teaching. Some of the student teachers had to work a paying job to pay bills during student teaching. This financial stress impacted the ability of some student teachers to lesson plan and could be explored further. Overall, future research should continue to explore the complexity of learning to teach and more specifically ways to improve student teacher knowledge transfer and metacognition in the lesson planning process.

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