Conceptualizing Teacher Educators' Beliefs of Student Agency and Motivation

Dissertation

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy
in the Graduate School of The Ohio State University

By

Hannah C. Parker

Graduate Program in Agricultural Communication, Education, and Leadership

The Ohio State University

2024

Dissertation Committee

Dr. Amanda M. Bowling, Advisor

Dr. Kellie Claflin, Committee Member

Dr. Shannon Washburn, Committee Member

Abstract

Teacher educators play a multifaceted role in designing and implementing curriculum to nurture preservice teachers' growth in content knowledge, pedagogical skills, and teaching efficacy. Amidst evolving educational landscapes and diverse classroom environments, there's an increasing emphasis on fostering teacher agency and autonomy to navigate these complexities effectively, particularly in unique contexts such as School-based Agricultural Education (SBAE). Self-Determination Theory was used as a guiding lens for this study and offers a comprehensive framework for understanding human motivation. Supporting the basic psychological needs of autonomy, relatedness, and competence can enhance students' motivation, academic outcomes, self-regulation, and well-being. Research on motivation within the context of SBAE has seen considerable growth in recent years. Scholars who investigate the relationship between motivation and engagement agree that engagement consists of three main components: behavioral engagement, emotional/affective engagement, and cognitive engagement. However, scholars applying Self-Determination Theory to the study of student engagement have delved into how autonomous motivation encourages a fourth type of engagement, agentic engagement. Through this grounded theory study, I aimed to conceptualize the beliefs of agriculture teacher educators regarding student motivation and agentic engagement within the context of SBAE teacher preparation programs. Two

research questions guided this study: (1) What do SBAE teacher educators believe about student motivation and agency within a teacher preparation program? and (2) How do SBAE teacher educators integrate beliefs of student motivation and agency within a teacher preparation program?

Grounded theory was used to generate a substantive theory for SBAE teacher educators to conceptualize student agency and motivation. Working under a pragmatic lens, I aimed to capture SBAE teacher educators' experiences with students and how their motivational beliefs influence student engagement. Participants in this study included eight SBAE teacher educators. I collected six sources of data: initial interviews, classroom observations, field notes, program artifacts, teacher educator journal reflections, and post-observation interviews. Constant comparative analysis was used across all data sources during analysis, continuing until saturation was reached. I used open, axial, and selective coding that align with suggestions of grounded theory approaches. Rigor and ethical considerations for general qualitative research were utilized throughout the duration of this study.

Findings emerged into five main themes: (1) beliefs of student agency, (2) agency supporting practices, (3) contextual influencers of SBAE teacher preparation program structure, (4) prioritization and justification of beliefs, and (5) approaches to align beliefs of agency to agency supporting practices. Beliefs of student agency emerged as a starting point, driving participants' conceptualization of student agency within the SBAE teacher preparation programs. Agency supporting practices explored participants conceptualization of how they integrate beliefs of student agency into SBAE teacher

preparation programs. The theme of contextual influencers of SBAE teacher preparation programs pinpoints the emergence of influencers within the unique parameters of each program, highlighting the diverse ways in which program structure influenced participants' beliefs of student agency. The prioritization and justification of beliefs theme explored the self-reflective process and awareness of conceptualizing student agency as participants connected their beliefs to practices. The final theme, approaches to connect motivational beliefs to practice connects the four preceding themes through three approaches that support the conceptualization of student agency. From the five themes, a substantive theory was developed, approaches of SBAE teacher educators' integration of motivational beliefs of student agency.

Within the substantive theory, SBAE can approach supporting student agency by following the approaches presented within the theory. The findings from this study align with previous research exploring student motivation, particularly concerning the nuanced concept of student agency. As SBAE teacher educators grapple with the concept of student agency and the conflicting beliefs surrounding student motivation, it is recommended that SBAE teacher educators are encouraged to use the substantive theory as a reflective tool for themselves to further support student agency. SBAE teacher preparation programs and their administrators are encouraged to evaluate their teacher evaluation system as this was a stressor for SBAE teacher educators to let go of instruction control to allow student agency. Future research should include further conceptualization of student agency and the delineation between student agency and agentic engagement.

Dedication

For my grandmother, who always encouraged me to be unapologetically myself.

Remember who you are – Marilyn Donovan

Acknowledgments

I would like to express my gratitude to the people who surround me with unconditional love and support, without whom I would not be who I am today. I have many individuals in my life to thank. If you do not find yourself mentioned, please know that I extend my heartfelt thanks for being a part of my life.

To my advisor, Dr. Amanda Bowling—I owe many thanks to you for taking on a Ph.D. student during a pandemic. Thank you, Dr. Bowling, for instilling in me a passion for quality, rigorous research and teaching. The impact you've had on both me and the students we work with will last a lifetime. I am most grateful for your patience, guidance, and, above all, the tough love you provided when I needed it most. Further, I would like to thank my committee, Dr. Shannon Washburn and Dr. Kellie Claflin, for the hours of advice and patience during the last three years. I am blessed to be advised and mentored by some of the best in agricultural education. Thank you for encouraging me to think critically and beyond the box I often put myself in.

To Dr. Amber Rice, I would not be where I am today without your mentorship. Your advice and friendship over the years have been more valuable than words can express. You saw potential in me that I had not yet discovered. Thank you for believing in me and for encouraging me along the journey I am on.

To Erica, my roommate, confidant, and best friend throughout this process—thank you. Through the vent sessions, frustrations, challenges, successes, and accomplishments, I cannot imagine being on this journey without you. I am excited to see where we will be in 5, 10, and 15 years!

To my lifelong friends at OSU (yes, all of you! And no, I will not name you all!), I appreciate the journey of highs and lows we've shared during our time in grad school. To Rachael, Katrina, and Colby, I extend my gratitude for the friendship and support each of you have provided me. Because of you, I am the best version of myself. Being surrounded by the best teacher educators in the world has set the bar that I strive to reach.

To my friends from New Mexico and Arizona, Ryanne, Sheyanne, Shayna, Nicki, Sarah, and Ashley, you have supported me mentally, physically, and emotionally as I chase a dream, and I don't have the words to express how grateful I am for each of you. The check-ins, coffee dates when I was home, weekend trips, and long phone calls have meant the world to me.

To my best friend, Jordon—Thank you for being the calm, level-headed friend who gives me tough, but true advice. You do not know how much I depend on your support. Thank you for picking up the phone when I needed you most and planning getaway weekends to take my mind off the craziness of life. I love you so much, friend!

To my loving family—mom, dad, and Ford—thank you for your unconditional love and support as I chase this dream. I do not say this enough, but I am thankful every day that I was chosen to be your daughter. To my Aunt Les, thank you for being a sounding board and voice of reason as a friend, aunt, and mentor who understands the

stress a Ph.D. program. You inspire me to accomplish half of the things you have accomplished, I am lucky to be your niece. Thank you to my extended family, who continue to love and support me.

Lastly, to Cors—thank you for teaching me to slow down, laugh, and let go of the things that don't matter in the moment. Thank you for being patient with my mind and learning to love me during the most stressful part of my life. No matter where life takes us I will always value the lesson you taught me the last three years.

Vita

Education

2018   M.S.   University of Arizona: Agricultural Education

2016   B.S.   New Mexico State University: Agriculture and Community

                            Development

Employment

2021 to 2024   Graduate Associate, The Ohio State University

2018 to 2021   Agriscience Teacher, Mesquite High School

2016 to 2018   Graduate Teaching Assistant, University of Arizona

Publications

Dormody, T., Skelon, P., Parker, H., Lee, T., Jaquez, C., Dooley, D., & Church, S.
        (2016). Using a university class to develop and test an 8th grade climate science
        curriculum. *NACTA Journal* (60), p. 15.
Parker, H.C., Rice. A. M. (2018) Agriscience Literacy: Identifying the Science in
        Agriculture Awareness. *The Agriculture Education Magazine. 90*(2), p.21-22.

Fields of Study

Major Field: Agricultural Communications, Education, and Leadership

Table of Contents

List of Tables

List of Figures

Chapter 1. Introduction

Background and Setting

  The conversation surrounding the supply and demand of the teacher workforce remains a persistent theme of education reform (Eck & Edwards, 2019; Sutcher et al., 2019). For years, the demand for teachers in the United States has exceeded the supply of individuals graduating from teacher preparation programs (Sutcher et al., 2019). While there are various pathways to teacher licensure, the most popular path remains through an accredited four-year university (Torres et al., 2010). The curriculum of teacher preparation programs typically encompasses coursework and practical experiences designed to develop an understanding of student learning and development, subject matter expertise, and pedagogical knowledge (Darling-Hammond & Bransford, 2007; Torres et al., 2010). Additionally, teachers entering the classroom face the daunting task of navigating the complexities of 21st century educational challenges, being responsive and aware of individual student's academic needs, talents, and cultural backgrounds while preparing and supporting students with in-depth learning that leads to passing standardized assessments (Darling-Hammond, 2006).

  The role of a teacher educator is multidimensional. Teacher educators create and implement curriculum into a teacher preparation program that provides preservice teachers with the opportunity to grow their content knowledge, pedagogical instruction,

teacher identity, and efficacy in their teaching ability (Darling-Hammond & Bransford, 2007; Torres et al., 2010). Furthermore, preparing teachers to develop curriculum, become subject matter experts, work with diverse learners, and manage classroom and individual student behaviors while increasing their teaching efficacy can be complex and overwhelming for teacher educators who oversee teacher preparation programs (Darling-Hammond, 2006). Teacher educators are faced with many factors that influence the design and outcomes of formal teacher preparation programs (Chaaban et al., 2021). For example, teacher educators must juggle accreditation expectations, licensure requirements, and the task of preparing preservice teachers to think critically and adapt to the ever-changing world of education (Torres et al., 2010). Beyond preparing preservice teachers with the technical skills to be highly qualified, teacher educators must also consider the emotional exhaustion novice teachers face within the first years in the classroom, which contributes to an individual's overall wellbeing, satisfaction, and motivation (Gregg, 2023).

Understandingly student motivation has been an ongoing topic of conversation in education to address the complexities of preparing teachers (Cochran-Smith et al., 2022; Patall et al., 2018; Reeve & Jang, 2022). One way teacher educators attempt to address the motivational needs of preservice teachers is by allowing space for self-directed inquiry (Cochran-Smith et al., 2022) as they develop their content knowledge, pedagogical instruction, teacher identity, and efficacy in their teaching ability (Darling-Hammond & Bransford, 2007). In practice and theory, we know students who are highly motivated tend to have greater academic outcomes (e.g. grades, test scores) and career

tenure (Roness, 2011). Evidence shows that when teachers are empowered, feel confident, and create relationships with students, learners will benefit (Reeve & Jang, 2022). Motivation observed in the classroom is a reciprocating social interaction between individuals and their academic environment (Bandura, 2018; Reeve, 2012); teachers, peers, guardians, and others can have an influence on student motivation and vice versa. Further, student motivation and engagement can occur simultaneously in a classroom (Reeve & Shin, 2020). However, there is no clear conceptualization of how teacher educators support students' agency to direct their own learning development (Cochran-Smith et al., 2022).

Teachers have attempted to support students' agency by fostering opportunities for students to engage agentically. Agentic engagement is the intersection between motivation, an unobservable psychological process, and engagement, an observable behavior (Reeve, 2012). While agentic engagement has been studied among college professors and students, its exploration from the perspective of teacher educators and preservice teachers remains limited. Some education professionals debate how much emphasis secondary teachers should place on incorporating agentic engagement beyond the theoretical underpinnings, arguing the relevance of agency as predeveloped curriculum trends enter the classroom to meet the demands of standardized test scores (Cimbricz, 2002). Others argue teacher agency is crucial for teachers to take ownership of curriculum implementation, student behavior management, and professional development needs (Biesta, 2015), especially in unique context areas (Cochran-Smith et al., 2022).

As teacher educators are challenged to meet the needs of preservice teachers due to credit hour constraints, monetary inputs, and general education requirements, a realistic solution needs to be explored to support teacher educators and preservice teachers (Wooditch et al., 2018) during their time in a teacher preparation program (Darling-Hammond, 2006). Further, School-Based Agricultural Education (SBAE) offers a unique context area of study to explore agentic engagement. Distinctive to agriscience teacher preparation, preservice teachers must be prepared with a breadth of content knowledge, from agricultural mechanics to animal husbandry to plant science and beyond, and the depth of knowledge to be content experts (Torres et al., 2010). Compared to other preservice programs, SBAE preservice teachers are being prepared to wear a variety of hats. To start, SBAE teachers are applied science teachers, Career and Technical Student Organization (CSTO) advisors, internship supervisors, participants in the larger school community, and many more roles often unique to local district and community needs (Smalley & Rank, 2019). Unlike other secondary teachers (i.e., language arts, mathematics, science), agriscience teachers often create their own lesson plans, as school or state-mandated curriculum is often nonexistent (Ball et al., 2007). While some predeveloped curriculum exists (e.g., Curriculum for Agriscience Educators (2024), ICEV (2024)) many teachers rely on creating their own lesson plans based on state agriscience standards (Torres et al., 2010).

Within the context of SBAE, research in motivation has explored how teachers support students' psychological needs (Bowling & Ball, 2020), student's needs when participating on a Career Development Event team (Ball et al., 2016), motivational

strategies teachers could employ when coaching Career Development Event teams (Bowling & Ball, 2020), motives of Career Development Team participants and coaches (Curry, 2017), intrinsic and extrinsic motives to teach SBAE (Ismail & Miller, 2021), student motives to participate in Supervised Agricultural Experience (Bird et al., 2013), and motivational beliefs of SBAE across career stages (Bowling et al., 2022). These studies have established a foundation to build on motivational research within SBAE, but further research exploring beliefs within SBAE could give insight into teachers' own development (Bowling et al., 2022).

As preservice SBAE teachers step into the classroom, often without a predeveloped agriscience curriculum, cultivating their own agency becomes crucial for novice teachers to increase their efficacy, decrease emotional exhaustion that leads to burnout, and provide needs-satisfying experiences to their own students (Cochran-Smith et al., 2022; Reeve & Jang, 2022). To argue that agency is not an important teacher disposition would be to argue that education is a "one size fits all" profession for both the educator and the learner.

Problem Statement

The concern over teacher tenure adds to the complexities of United States education in the 21st century. Further, teacher preparation programs play a significant role in supplying qualified teachers who are equipped with content and pedagogical knowledge. Consequently, teacher educators hold a crucial role in shaping preservice teachers' experiences, including their engagement in field placement sites, knowledge construction, and identity as novice educators (Darling-Hammond & Bransford, 2007).

5

Further, navigating the complexities of preparing teachers to manage diverse classrooms and adapt to evolving educational changes calls for individuals who are innovative and self-directed. Thus, it's imperative for teacher educators to prioritize the agency and autonomy (Schmidt, 2019) of teachers within preparation programs, particularly given the increasing complexity of these challenges (Cochran-Smith et al., 2022; Reeve, 2012; Reeve & Jang, 2022). Encouraging teacher agency could potentially offer a solution to this demand. Yet, there is no research exploring how teacher educators foster self-directed inquiry among SBAE preservice teachers and the strategies they employ to achieve this goal.

Kaplan and Madjar (2017) recommend investigating teacher educators' beliefs regarding student teachers' agentic engagement and motivation. Conceptualizing agency may address the ambiguity of teacher agency in education. As preservice teachers move from the structured environment of a methods lab to the practical setting of student teaching, it becomes crucial for them to take ownership of their professional development and apply their pedagogical content knowledge to meet student needs (Schmidt, 2019). Previous research explores secondary teachers' practices and beliefs about agentic engagement. However, few studies have explored teacher educators and preservice teacher motivation surrounding agentic engagement (Reeve et al., 2022; Roberts & Robinson, 2018). Additionally, Cochran-Smith and colleagues (2022) suggests exploring teacher agency in unique contexts areas to support the need to conceptualize teacher agency. Recognizing and fostering teachers' beliefs of student agency is essential for addressing the diverse needs of both educators and learners in education. To promote

6

agentic engagement in a post-secondary setting, it is essential to explore the beliefs and actions of teacher educators concerning student motivation and engagement. Within SBAE, motivation is of growing concern as research stretches beyond pedagogical tactics to support student achievement. If student agency can be conceptualized, teacher educators can better support the motivational needs of preservice teachers to address the complexities of SBAE.

Purpose Statement & Research Questions

The purpose of this grounded theory study was to conceptualize the process to support agentic engagement within the context of SBAE teacher preparation programs. The following research questions guided this study:

1. What do SBAE teacher educators believe about agentic engagement and preservice teacher motivation?

2. How do SBAE teacher educators integrate agentic engagement beliefs within a teacher preparation program?

Common Terms and Definitions

Agency: describes the motivation of why an individual [the agent] seeks to influence their conditions (Reeve & Jang, 2022)

Agentic Engagement: describes the action behind motivation [agency] (Fitzpatrick et al., 2018; Reeve & Jang, 2022)

Agriscience education major: Degree program at a university preparing students to enter a career in formal and non-formal agricultural education (Torres et al., 2010)

7

Autonomy: One's volition to act (Ryan & Deci, 2017)

Basic Psychological Needs Frustration: When autonomy, relatedness, and competence and unfulfilled (Ryan & Deci, 2017)

Basic Psychological Needs Satisfaction: When autonomy, relatedness, and competence are fulfilled (Ryan & Deci, 2017)

Career and Technical Student Organization: "Enhance student learning through contextual instruction, leadership and personal development, applied learning and real world application" (Career and Technical Student Organizations, 2024)

College of Agriculture: Institution that focuses on agriculturally related degree programs and majors

College of Education: Institution that focuses on education related degree programs

Competence: Efficacy in a task (Ryan & Deci, 2017)

Early Field Experience: Required hours for licensure exposing students to the classroom setting, teaching methods, and diverse subjects and grade levels (Torres et al., 2010)

Inservice Teacher: Teachers who are employed by the school system and have obtained licensure or working toward obtaining licensure.

Preservice Teacher: College student enrolled in a teacher preparation program with an education major working toward traditional teacher licensure.

Relatedness: Feeling connected to others (Ryan & Deci, 2017)

School-Based Agricultural Education: Shortened to SBAE, agricultural instruction is provided to 9-12 grade level students. The SBAE model is comprised of three

components, classroom instruction/laboratory, supervised agricultural experience (SAE), and primer leadership development (FFA) (Torres et al., 2010)

SBAE Program: Agriculture subject area within a high school that includes each aspect of the three-circle model, FFA, SAE, and classroom instruction (Torres et al., 2010)

SBAE Teacher Preparation Program: Teacher preparation program that prepares agriculture teachers specifically (Torres et al., 2010)

Student Teacher: College student who is placed in a field experience at a school site supervised by a cooperating educator and university supervisor (Torres et al., 2010)

Student: For this study, student is defined as a college student enrolled in a SBAE teacher preparation program

Student Teaching Placement: SBAE student teacher placed at a SBAE program for licensure requirement fulfillment (Torres et al., 2010)

Teacher Educator: A person who instructs, advises, and supervises student teacher at a college or university (Torres et al., 2010)

Basic Assumptions

1. Agentic engagement exists within SBAE teacher preparation programs and can be codified.

2. Teacher educator possess effective teaching methods to acknowledge agentic engagement of students.

3. Teacher educators were honest during their interviews and reflections.

4. Classroom observations represent what was typical for the participants.

5. Motivation is conceptualize as a psychological process and engagement is

   conceptualized as a social interaction with the environment.

Chapter 2. Review of Literature

Purpose of Review of Literature in Grounded Theory

At the inception of grounded theory as a methodology, scholars recommended that researchers waited to engage in a literature review until data were collected and analyzed. The intent of this recommendation was to protect the integrity of building theory with the researcher approaching the data with a 'blank slate' (Glaser & Strauss, 2017). However, in more recent years, researchers recognize that it would be naïve to assume researchers would and could completely ignore previous literature. As modern grounded theorists challenge out-of-date practices (Charmaz, 2006; Corbin & Strauss, 2015), I intended to use the process of a literature review to explore what is known about agentic engagement, student agency, and motivation to explore gaps that exist (Corbin & Strauss, 2015). Within grounded theory methodology, the review of literature can be used as a comparison tool to identify various aspects of a phenomenon, allowing the researcher to observe connections between concepts (Corbin & Strauss, 2015).

I aimed to conceptualize the beliefs of SBAE teacher educators regarding student motivation and agentic engagement within the context of SBAE teacher preparation programs. Agentic engagement has been studied from the perspective of students and teachers in secondary (Patall et al., 2022; Reeve, 2013; Reeve & Shin, 2020; Zambrano et al., 2022, 2023) and post-secondary settings (Patall et al., 2022; Reeve et al., 2022),

which may have some transferable concepts within the context of teacher preparation. Through the lens of Self-Determination Theory, the following literature review will examine what we know about motivation and engagement to identify gaps found within SBAE teacher education.

Human Motivation Through the Lens of Self-Determination

Self-Determination Theory provides a comprehensive framework for understanding human motivation (i.e., why we do what we do) (Deci & Ryan, 1985; Ryan & Deci, 2000b). Deci and Ryan (1985) conceptualize Self-Determination Theory as an organismic approach to understanding human motivation, emphasizing active and self-sustaining interactions within one's environment. The meta-theory has evolved over time to address modern issues of human motivation and initiative (Ryan & Deci, 2019). Drawing from an analogy of biology, living organisms interact with their environment to fulfill their needs, humans similarly interact with their surroundings to satisfy their unique needs. In some cases, an individual's interactions with their environment (e.g. peers, setting, context) may advance motivation (Ryan & Vansteenkiste, 2023a). For example, Sergis and colleauges (2018) investigated the benefits of flipped classroom models on secondary students' academic outcomes and motivation. Their study revealed that students who participated in peer groups reported higher levels of autonomy and relatedness fulfillment compared to those who did not engage in peer groups (Sergis et al., 2018). Further, Kaur and Noman (2020) investigated social context factors among college students and faculty, supporting prior research suggesting that partnerships offer students a motivational foundation to fulfill psychological needs through a social context.

12

Further, environmental factors have been explored to connect positive social interactions with highly efficacious individuals (Bandura & Cervone, 1986; Schunk, 2012; Schunk & DiBenedetto, 2021). Other interactions with one's environment may challenge the individual and thwart motivation (Ryan & Vansteenkiste, 2023a). Patall and colleauges (2018) explored daily motivational supporting and thwarting practices within a high school science class. They found when teachers expressed controlling messages (e.g. telling students to complete their work, strict daily expectations, lack of choice in daily activities, and planned uninteresting activities) students' autonomous motivation was thwarted (Patall et al., 2018). Further, choice, or rather the lack thereof, that aligns with individual beliefs and values thwarts motivation (Wigfield & Eccles, 2000). When individuals perceive an anticipated outcome as valuable, they are driven to actively engage in the activity and exert sustained effort to attain it (Wigfield & Eccles, 2024). Further, Wigfield and Eccles (2024) recently addressed the unique social aspect of education and the importance that school and home factors have on motivational theory constructs. Poor experiences within the context of school leads to low expectations of achievement (Wigfield & Eccles, 2024) and controlled motivation (Ryan & Vansteenkiste, 2023a). At the core of Self-Determination Theory lies the innate drive to experience fulfillment through interactions with the environment and a continuous pursuit of personal growth and self-improvement (Ryan & Deci. 2000).

Self-Determination Theory embodies a broad framework, referred to as a meta-theory, to explore why we do what we do, ultimately contributing to personal growth and flourishing (Ryan & Vansteenkiste, 2023a). Over time the meta-theory has expanded to

explore six mini theories supporting further theory development. Self-Determination

Theory builds on Deci's research during the 1970s (Deci et al., 1981; Deci & Ryan,

1985). In the initial introduction of Self-Determination Theory, Deci and Ryan (1985)

presented three mini-theories, situating Self-Determination Theory around the concept of

intrinsic and extrinsic motivation, as described through the *cognitive evaluation mini*

theory (Deci & Ryan, 1985; Ryan & Deci, 2000a; Ryan & Vansteenkiste, 2023). Ryan

and Deci (2000a) define intrinsic motivation as "doing an activity for its inherent

satisfactions rather than for some separable consequence" (p. 56). On the opposing end,

extrinsic motivation describes participation in an activity which is driven by the desire to

attain an outcome (Ryan & Deci, 2000a). Compared to other theories that explore human

motivation (Weiner, 1972; Wigfield, 1994; Wigfield & Eccles, 2000), Self-Determination

Theory adopts a person-centered approach, indicating that researchers examine

motivational dynamics from a psychological perspective (Ryan & Vansteenkiste, 2023).

Self-Determination Theory theorists assert that extrinsic motivation can vary in the extent

to which it is expressed (Ryan & Deci, 2000; Ryan & Vansteenkiste, 2023; Scott Rigby

et al., 1992). For instance, one student may complete their homework due to fear of

consequences from their parents, while another may do so because they value the work

for their career path (Ryan & Deci, 2000a). Both students are aiming for an external

outcome. Ryan and Deci, (2000) suggest that the variance in motivation can be described

as regulatory styles, defined in the *organismic integration mini-theory* (Deci & Ryan,

1985). These regulatory styles support internalization and interest integration into an

individual's daily processes, promoting autonomous motivation, self-regulation, and

increased well-being (Deci & Ryan, 1985; Ryan & Vansteenkiste, 2023b). In contrast, controlled motives (i.e., externally regulated individuals) yield less positive outcomes, such as poor well-being and low-performance results (Ryan & Vansteenkiste, 2023b). The third mini-theory, *causality orientations mini theory*, attempts to explain individual differences in regulatory behavior by considering how individuals interact with challenges and obstacles within the environment (Deci & Ryan, 1985; Ryan & Vansteenkiste, 2023b). For example, individuals observed in a controlled orientation focus on rewards and punishments, while those in an autonomy orientation prioritize values and the pursuit of their own interests (Ryan & Vansteenkiste, 2023b).

In the current educational climate, policymakers emphasize preparing students for college and economic roles (Darling-Hammond, 2006; Ryan et al., 2023). Self-Determination Theory, however, takes the perspective that the purpose of education is to promote individual growth (Ryan et al., 2023). As Self-Determination Theory expands to understand the human pursuit of fulfillment, current research explores controlled motivation versus autonomous motivation through the exploration of one's basic psychological needs (Ratelle et al., 2007; Ryan & Deci, 2020; Vansteenkiste et al., 2006). While three newer mini theories have been added to the Self-Determination Theory meta-theory, I will focus on how the *basic psychological needs mini theory wa*s used to guide this study.

Basic Psychological Needs Mini Theory

The Basic Psychological Needs Mini Theory falls under the Self-Determination Theory and states when the three innate needs of autonomy, competence, and relatedness

are fulfilled, we are able to experience intrinsic motivation (Ryan, 2023; Ryan & Deci, 2000a; Vansteenkiste et al., 2020). Intrinsic motivation and autonomous motivation are interchangeable terms to describe when our innate psychological needs are fulfilled and we experience volition (Ryan & Vansteenkiste, 2023). Need fulfillment in academic settings supports academic outcomes, students' well-being, and individual development (Kaplan & Madjar, 2017). In the following paragraphs, autonomy, competence, and relatedness will be defined and described in the context of preservice teacher motivation.

Autonomy can be described as the need fulfillment to seek volition to act on a behavior change (Vansteenkiste et al., 2020). In the context of this study, preservice teachers' autonomy is related to how much freedom they are given within an authentic learning experience (Reeve, 2012). As preservice teachers plan and teach lessons, controlled motivation of external pressures, such as licensure or university requirements, often thwart preservice teachers' motivation (Reeve, 2012). An example of controlled motivation for preservice teachers could be strict deadline submissions of lesson plans during authentic learning experiences (Reeve, 2012). On the opposing side, preservice teachers can experience autonomy when choice is provided on how lesson plans are completed (Kaplan & Madjar, 2017). Autonomy is crucial for preservice teachers to experience so they can be autonomous post-graduation as they continue to find their identity as an in-service teacher (Kaplan & Madjar, 2017).

Competence can be described as one's efficacy towards a specific task. Preservice teachers often describe their efficacy in teaching methods and behavior management as low when starting their field experience (Vansteenkiste et al., 2020). Additionally,

16

preservice teachers have expressed feeling less confidence in lesson planning and their own teacher identify (Reeve, 2012). Reeve's (2012) states that preservice teachers who self-report a higher efficacy also reported higher competence compared to preservice teachers who self-report a low efficacy score. Competency of preservice teachers can be expressed in many forms. For example, feeling competent as a "content expert" means preservice teachers are confident in their knowledge of a specific content area (Rice & Kitchel, 2015). Another example is expressing satisfaction in lesson planning or being proactive in their lesson planning (Ball et al., 2007). The last example of preservice teachers feeling competent is recognition and positive affirmation from mentors (Reeve, 2013).

Relatedness can be described as the need for social connection within one's environment. Relatedness can be conceptualized in a variety of ways. One way is positive acknowledgement of preservice teachers' task completion (Vansteenkiste et al., 2020). Another way is preservice teachers' connection with others who are experiencing similar challenges (Reeve, 2013). Additionally, preservice teachers recognize the importance of building relationships between students and mentors within the classroom (Hudson & Hudson, 2018). However, student teachers also feel isolated during their field placement, leading to low motivation (Hudson & Hudson, 2018).

Current Research in Education and Basic Psychological Needs

When individuals have needs-satisfying experiences, outcomes can lead to increased well-being, internalization, and self-regulation (Ryan & Deci, 2000b). Within the context of education, we know intrinsically motivated students express greater

academic achievement outcomes compared to students who are extrinsically rewarded (Ryan et al., 2023; Ryan & Deci, 2020). Further, when a teacher's needs are fulfilled, their learners will follow (Ryan et al., 2023).

Supporting basic psychological needs of autonomy, relatedness, and competence, can increase students' ability to increase their own motivation, academic outcomes, regulation, and well-being (Kaplan & Madjar, 2017; Patall et al., 2018; Ratelle et al., 2007). Vermeulen and colleagues (2012) explored student teachers' psychological needs to evaluate the effectiveness of teacher preparation programs and suggest further qualitative research to explore student teachers' and mentors' shared goals during field placement. Through intrinsic goal setting with their mentor teacher, Vermeulen and colleagues (2012) suggest preservice teachers can experience deeper processing of learning and greater concepts of understanding. Further, Kaplan and Madjar, (2017) explored preservice teachers' perceptions of their basic psychological need's satisfaction, self-accomplishment, engagement, and emotional exhaustion during their field placement. Kaplan and Madjar (2017) highlight support of mentors impacted autonomous motivation, sense of relatedness, and sense of competence. These findings are consistent with other studies that focus on the importance of need support for promoting positive motivational outcomes of teachers (Fernet et al., 2016; Reeve & Jang, 2022; Roth et al., 2007).

Upon reviewing previous literature on supporting teacher motivation through basic psychological needs theory, it became apparent that there is a lack of research on how teacher educators can support preservice teachers. The transferability of previous

findings in motivational literature may not be applicable to preservice teachers as adult learners require developmentally different approaches when learning e.g. preservice teachers as adult learners. Studies have shown that teachers who are needs-supportive of their own students tend to have increased needs-satisfaction of their own motivation (Reeve & Jang, 2022). Additionally, autonomy-supportive teaching behaviors can be teachable in preservice teachers (Reeve, 1998). Kaplan and Madjar (2017) explore teacher motivational outcomes, sense of accomplishment, engagement, self-exploration, and influences of cultural context on teacher outcomes. Results of this study support previous findings in that teacher's needs-support contributed positively to autonomous motivation and needs-satisfaction (Kaplan & Madjar, 2017). The vast majority of research has explored preservice teacher's motivation but lacks depth in exploring teacher educator's motivation and needs support (Kaplan & Madjar, 2017). Kaplan and Madjar (2017) suggest further research exploring conditions that promote preservice teachers need satisfaction and autonomous motivation. The meta-theory of Self-Determination Theory aims to provide a framework for the continued development of our understanding of motivation and personality development (Ryan & Vansteenkiste, 2023a). Further, Berkman and Wilson (2021) suggests contemporary theorists can rarely explore the practicality of theory. Ryan and Vansteenkiste (2023) called for Self-Determination Theorists to address this obstacle by exploring meaningful themes and conduct research with translational value.

Student Engagement

Competing models of engagement have sparked conversation about the ambiguity of engagement and its multidimensional nature (Reschly & Christenson, 2022; Wong & Liem, 2022). Over the years, student engagement has been linked with overall school success, students' motivation to learn, and their interest and enjoyment in learning (Wong & Liem, 2022). Researchers initially conceptualized student engagement by examining the amount of time students spend on-task (John Carroll's Model of School Learning, 1963) and its relation to academic outcomes. Early investigations into on-task engagement distinguish between active engagement (i.e. student asking a question) and passive (student looking at the teacher) (Reschly & Christenson, 2022). However, it's now understood that academic engagement cannot be adequately captured solely by measuring the time spent on a particular task; rather, it encompasses quality interactions that accommodate individual differences among students (Reschly & Christenson, 2022). Further, Wong and Liem (2022) conducted an analysis of student engagement constructs to clarify the vague definition of student engagement and proposed a refined definition: "Learning engagement refers to students' psychological state of activity that affords them to feel activated, exert effort, and be absorbed during learning activities" (p. 120). Through their theoretical review, Wong and Liem (2022) suggest that engagement is observed at both the learning and school levels but has yet to be explored simultaneously. They recommend future research investigate the influence of motivation on both the learning and school levels and explore characteristics that require further theoretical development. Competing models of engagement have led to discussions about its

complexity, with Wong and Liem (2022) highlighting the need for future research to explore engagement at multiple levels and its relationship with motivation.

Researchers who study the intersection between motivation and engagement concur that engagement comprises three primary components: behavioral engagement, emotional/affective engagement, and cognitive engagement (Reeve, 2012; Reschly & Christenson, 2022). However, scholars approaching motivation through the lens of Self-Determination Theory have explored how autonomous motivation fosters behavioral (Skinner et al., 2009), emotional (Skinner et al., 2009), and cognitive (Vansteenkiste et al., 2005) engagement among secondary students. Reeve (2012) argues that the three components of engagement offer an incomplete understanding of student engagement within the framework of Self-Determination Theory. Within a classroom, the teacher-student dynamic embraces a reciprocating flow where students can express proactive influence on the flow of instruction (Reeve, 2012). Reeve (2012) further suggests that students who actively contribute to instruction are not adequately represented within the three traditional components of engagement. Behavioral engagement manifests through observable actions, such as when a student completes their assigned homework (Jimerson et al., 2003; Jimerson & Chen, 2022). Emotional or affective engagement encompasses a student's positive and negative reactions to teachers, classmates, academics, or school-related activities (Fredricks, 2022). An example of emotional or affective engagement is when students express interest in or enjoyment of a specific task (Reeve & Jang, 2022). Lastly, students can be cognitively engaged, often described as an individual's intentional investment and willfulness in their own academic achievement. Cognitive engagement

refers to an individual's intentional investment and willfulness in their academic achievement. Cognitive engagement can be observed through self-efficacy (Jimerson & Chen, 2022), self-regulation (Christenson et al., 2008), and goal-setting behaviors (Christenson et al., 2008). To bridge the gap, Self-Determination Theory researchers suggest adding a fourth component to the engagement model of agentic engagement (Reeve, 2012; Reeve & Tseng, 2011). Agentic engagement encompasses the reciprocal interaction between teachers and students' in shaping instructional flow, from a motivationally supported environment to student agency to students agentically engaging in the classroom (Reeve, 2012; Reeve & Tseng, 2011). While traditional views on engagement delineate three primary dimensions, recent exploration, rooted in Self-Determination Theory, underscores the pivotal role of autonomous motivation in fostering a more comprehensive understanding of engagement among secondary students.

Several studies have explored engagement and motivation constructs within a post-secondary setting. Trolian and Jach (2020) examined cognitive engagement by analyzing applied learning experiences, such as internship/practicum experiences and their connection to course content to real-life application, alongside students' autonomous motivation. Their findings indicate that students demonstrated increased autonomous motivation when participating in out-of-class experiences, linking problems to practical solutions, and engaging in internship experiences (Trolian & Jach, 2020). Additionally, Azila-Gbettor and colleagues (2021) explored self-efficacy, autonomous motivation, and engagement in a lecture-based college course. Consistent with other research, they found that individuals with high self-efficacy are likely to exhibit high

engagement (Azila-Gbettor et al., 2021; Olivier et al., 2019; Schunk & DiBenedetto, 2021). Further, Azila-Gbettor and colleagues (2021) discovered that self-efficacious individuals are more inclined to engage cognitively and affectively in peer-to-peer interactions.

As engagement research continues to contribute to the body of knowledge, scholars have begun to explore engagement beyond the three traditional dimensions to include *agentic engagement*, a way for students to take ownership of their own learning (Patall et al., 2016, 2022; Reeve, 2013; Reeve et al., 2022).

Student Engagement in a SBAE Classroom Scenario

As noted above, we can observe students engaging in a variety of ways. For example, I will use a single teacher interacting with students during a lesson within a broader unit of animal behavior. Sally, a student in class, can be observed focused and on task while completing a worksheet about animal facilities. Sally is behaviorally engaging by completing the task the teacher assigned. Halfway through the class period, the teacher interrupts and tells all students to skip question three because more background information is needed before they can answer the question. Sally lets out a loud, "uhhhhh I already answered that question. What am I supposed to do now?" Sally's frustrations can be described as emotional/affective engagement as she reacted with frustration to already completing question three. As the class period nears the final ten minutes, the teacher announces that students will be starting a project where they can design an animal facility. Sally turns to her table partner and states, "I want to build a pig farm so I can design a new type of farrowing crate. I have some ideas on how I could change them if I

owned my own pig operation." Sally is reflecting on her prior knowledge to support

future academic learning outcomes through cognitive engagement. As the bell is about to

ring, the teacher asks, "Does anyone have questions about the task we completed today or

the project we are starting tomorrow?" Sally raises her hand and asks the teacher if the

class can watch a movie about Temple Grandin, stating, "we can use what we learn about

animal handling and facilities to apply to our projects we will be working on." The

teacher takes this into consideration and tells Sally that her idea is great and will think

further about incorporating the movie into the lesson plan. Sally agentically engages with

the lesson outcomes by influencing the flow of instruction by providing her input to the

teacher.

Agentic Engagement and Its Approaches

An *agent* is a person who seeks to influence their environmental conditions

(Bandura, 2001, 2018). Bandura (2001) suggests that humans are thoughtful, reactive,

and reflective, thus guiding their motivation and development by creating plans,

establishing goals, and manifesting key outcomes related to their core beliefs. Preservice

teachers seek to improve their own learning conditions or environment as they seek

growth and efficacy in their teacher identify (Jensen, 2019). Preservice teachers are

agents during their field experience as they are expected to think and act like an in-

service teacher (Jensen, 2019). However, preservice teachers feel limited in their ability

to make decisions as an agent within their cooperating teachers' classroom (Cong-Lem,

2021). Beyond the internship experience, novice teachers are expected to self-manage

and assert independence during decision-making related to classroom management,

lesson planning, and professional responsibilities (Lent & Brown, 2013). Lent and Brown (2013) suggest people entering new careers engage reciprocally with their environment, allowing them to take an active role in their personal growth and development by participating in the social context of the workplace. Preservice teachers act as agents in their environments, seeking to influence conditions and actively engaging in personal growth and development.

Agency describes the motivation of why an individual [the agent] seeks to influence their conditions (Reeve & Jang, 2022). When an individual experiences agency, they often express fulfillment of their basic psychological needs and increased well-being (Reeve & Jang, 2022). In teacher education, agency is essential for preservice teachers to act upon to fulfill their psychological needs (Matos et al., 2018). A case study conducted on three beginning UK teachers explored how they developed a sense of agency within the first three years of teaching (Rushton & Bird, 2023). Findings were reported in two major themes: barriers of agency and enablers of agency. Rushton and Bird (2023) reported these teachers experienced pressures of required assessments, lack of support for innovative curriculum change, and conflicting values of curriciculm implentation as barries for beginning teachers to establish agency. Further, they reported beginning teachers sought out trusted professional relationships and ownership of professional responsibilities (Rushton & Bird, 2023). Rushton and Bird (2023) propose that future research on teacher agency should explore "the support and resources that individuals require if they are authentically to achieve teacher agency throughout their careers" (p. 14). Further, the conceptualization of teacher agency is criticized for its individualistic

focus, overlooking the significance of culture, context, and environment (Cochran-Smith et al., 2022). Recommendations from Cochran-Smith and colleagues (2022) encourage future research explore "conditions and contexts that enable or constrain the emergence of teacher/teacher education agency is of particular importance" (p. 447). Teacher educators play a crucial role in fostering a sense of inquiry among beginning teachers regarding their own growth and development (Cochran-Smith et al., 2022). Agency is crucial in understanding motivation in teacher education but lacks clear conceptualization of conditions that influence individuals agency.

Agentic engagement describes the action behind motivation [agency] (Fitzpatrick et al., 2018; Reeve & Jang, 2022). Further, agentic engagement has been found to enhance learning outcomes and persistence among preservice teachers during field experiences (Fitzpatrick et al., 2018). Agentic engagement leads to increased basic psychological needs, persistence during field experience, and increased overall well-being (Reeve & Jang, 2022). Zambrano and colleagues (2023) explored high school physical science teachers' beliefs of agentic engagement. The findings of this study suggest teachers believe students can act on their agency in two ways. The first is through agentic behaviors and the second is through agentic approaches (Zambrano et al., 2022). Agentic behaviors are actions students take to influence the flow of instruction. Examples of behaviors demonstrating agency include students posing questions, requesting more information, or expressing their interest in a topic (Zambrano et al., 2022). Agentic approaches are teacher's beliefs of how students should enact their own agency (Zambrano et al., 2022). An example of agentic approaches could be meeting with the

teacher at the appropriate time and place to express questions, concerns, or comments related to classroom instruction (Zambrano et al., 2023). Within the same study, findings suggest that teachers can experience benefits when students enact agentic behaviors and approaches (Zambrano et al., 2022). Teachers who integrate agentic engagement into classrooms expressed receiving valuable feedback from students, integrating creativity into instruction, and an increase in energy (Zambrano et al., 2022). In Table 2, Reeve and Shin (2020) illustrate examples of students' classroom expression of agentic engagement.

Table 1

Illustrative Examples of Students' Classroom Expressions of Agentic Engagement (p. 152)

Function of the Agentic Engagement	Illustrative Student Quotation
Let the teacher know what you want.	"I want to learn how to paint."
Let the teacher know what you are interested in.	"I am interested in Stonehenge."
Express a preference.	"Reading Shakespeare is nice, but I would prefer to watch the movie version. May we do that?"
Offer input.	"Could we practice this language in a real setting, and not just memorize note cards?"
Make a suggestion.	"A trip to the computer lab would be helpful; could we do that?"
Offer a recommendation.	"Can we start with a demonstration?"
Ask for a say in what to do and how to do it.	"May we work with a partner?"
Generate options.	"I would like to add a drawing to my essay; may I do that?"
Ask "why?" questions.	"Why do we need to wear these safety goggles?"
Ask a question to help you learn	"I don't get it; why is the periodic table arranged in these columns and rows?"
Ask for support and guidance.	"Could you show me how to do this?" "Could you give an example?"
Ask the teacher for needed resources.	"Could we have a little more time?"

College instructors play a crucial role in the classroom climate, defined by Bandura (2006) as a social negotiation between instructor and student. Student and instructor interactions have been explored through agentic engagement (Cayubit, 2017; Patall et al., 2019; Patall, Kennedy, et al., 2022; Reeve, 2013; Reeve & Jang, 2022). Patall and colleagues (2019) explored post-secondary students' agentic engagement through an online intervention during a general education course. Findings suggest students participating in the intervention were more likely to voice their opinions and speak up, thus increasing their agentic engagement. Additionally, the collegiate classroom environment has a direct relationship to academic motivation and agentic engagement (Cayubit, 2017). College students prefer a learning environment that promotes direct student involvement (Cayubit, 2017), where the instructor-to-student relationship leads to increased innovation and student-led engagement (Patrick et al., 2011).

Motivation and Agentic Engagement

First, it is important to differentiate between the definitions of engagement and motivation. Reeve (2012) defines engagement as "the extent of a student's active involvement in a learning activity" (p. 150). Student engagement is a multidimensional construct that depicts how actively involved a student wants to participate in a specific learning activity (Reeve, 2012). Reeve's (2018) recognizes that motivation arises from various conditions (environments, needs, emotions, etc.), however, for the purpose of this research and its relations to previous literature, motivation stems from a needs-based

28

perspective with the Self-Determination Theory framework, where motivation relates to student's psychological need fulfillment (Reeve, 2012). Engagement goes beyond students reacting to instruction and seeks further conceptualization to provide practical recommendations (Reeve, 2012). Agentic engagement increases students' academic outcomes, contributes positively to the classroom environment and relationships, and increases psychological needs fulfillment (Reeve, 2012).

The phenomenon of agentic engagement is often described as a reciprocating interaction between student and teacher (Reeve, 2013). Studies have explored students' agentic engagement into the flow of instruction among youth (Fitzpatrick et al., 2018; Patall et al., 2021) and young adult learners (Kaplan & Madjar, 2017; Patall et al., 2021). Shown in Figure 1 (Reeve, 2013) proposes the reciprocating interaction between teacher and student and how agentic engagement can influence the flow of instruction.

Figure 1

Four Interrelated Aspects Of Student Engagement
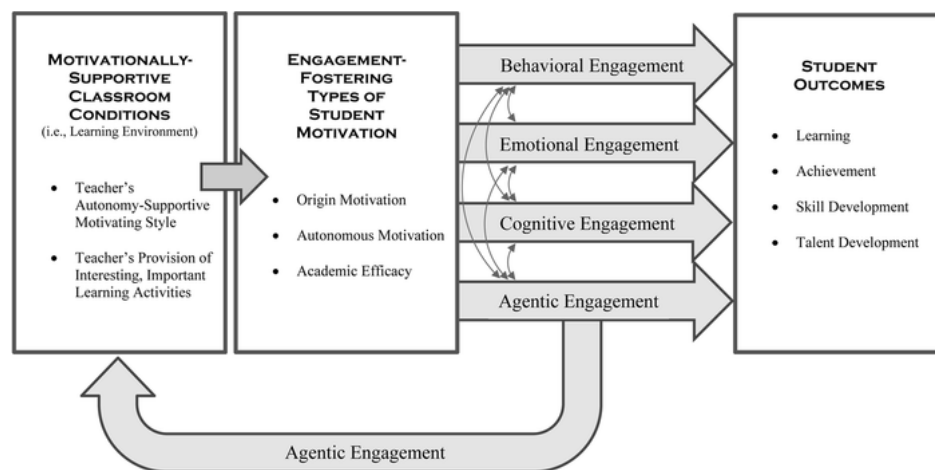
Previous research supports the original model proposed by Reeve (2013). Reeve and Jang (2022) compared teaching conditions between autonomy-supportive and controlling environments. Participants who were preservice teachers were assigned either a "teacher" or "student" role and randomly assigned to either autonomy-supportive or controlling motivational teaching conditions (Reeve & Jang, 2022). Findings suggest that the autonomy-supportive teaching condition enhanced a supportive learning environment and greater motivational satisfaction (Reeve & Cheon, 2022). Reeve and Cheon (2022) recognize the limitations of the controlled experimental environment, which does not mimic a true learning environment, and suggest future research in an authentic learning context. Students who act as agents within the educational environment reinforce previous literature that supports greater educational and motivational outcomes (Kaplan & Madjar, 2017; Patall et al., 2021). Reeve and colleagues (2021) caution educators when implementing agentic engagement interventions to "not lose sight of parallel needs to enrich both the motivation students need to be agentically engaged and the autonomy-supportive conditions that allow agentic engagement to flourish" (p. 10). While agentic engagement interventions have been conducted in controlled experimental environments, we still lack depth in *how* teacher educators can incorporate agency into preparation programs to increase student motivation, interests, and internalization of their own learning.

Motivation Research in School-Based Agricultural Education

Motivation research conducted within the context of SBAE has gained significant traction in recent years. However, the following review of literature will reveal a gap in

how teacher educators conceptualize motivation in SBAE preservice teacher education. To begin, several studies have explored teacher mechanisms and how they interact with student motivation. SBAE teacher beliefs, relationships built with students, seeking out student interests, and supporting the need for autonomy and competence were related to student motivational outcomes (Bowling & Ball, 2020). Researchers recommend SBAE teacher preparation programs introduce ways for preservice teachers to explore motivational strategies to develop their "ability to purposefully motivate students" (Bowling & Ball, 2020). Further, researchers explored specific motivational aspects of SBAE programs that include motivational strategies related to Career Development Events (Ball et al., 2016; Curry, 2017). From their findings, Ball and colleagues (2016) proposed a Career Development Strategies Model to guide SBAE teachers who wish to incorporate motivational strategies in preparing CDE teams and recommend findings from this study can inform teacher practices through research based teaching strategies. Additionally, Ismail and Miller (2021) explored SBAE motivational factors to teach. Findings were broken up into intrinisic and extrinic motives. Participants identified enjoyment of teaching, being a positive role model for students, sought out a challenging career, and enjoyed creativity of SBAE as intrinsic motives (Ismail & Miller, 2021). In contrast, teachers identified salary and job benefits, flexible schedules, and a pleasant work environment as extrinsic motives to teach SBAE (Ismail & Miller, 2021). Recommendations for researchers seek further exploration of contributing factors that may influence SBAE teachers to enter the profession (Ismail & Miller, 2021). Lastly, Bowling and colleagues (2022) explored motivaitonal beliefs of SBAE teachers and

31

differences across career stages. Motivational beliefs are fluid over time, with some beliefs overlapping throughout career stages, while other beliefs do not overlap. Bowling and colleagues (2022) identified fostering relationships and seeking out a variety of motivational strategies emerged as common themes across all career stages. Further, Bowling and colleagues (2022) recommend teachers pursue professional growth opportunities to evolve their motivational practices. Research within the context of SBAE has increasingly focused on exploring motivational factors and strategies among inservice teachers but lacks exploration at the teacher preparation level.

Summary

Motivation research within the context of SBAE has gained significant traction in recent years, yet a review of literature reveals a gap in how teacher educators conceptualize and support motivation in SBAE preservice teacher education. While grounded theory was established on the tenets of starting from a "blank slate," a review of literature is important to establish what we do know about motivation, agency, agentic engagement and what transferable constructs can be applied within a teacher preparation program setting. In Figure 2, I have provided a visual model of the literature review. I highlighted constructs within motivation literature, described in the review, that may be transferable to teacher preparation. Within the figure, a number identifies gaps in the literature and recommendations for research. The research focuses on the literature gap identified by the number "1" within Figure 2.

Figure 2

Visual Review of the Literature
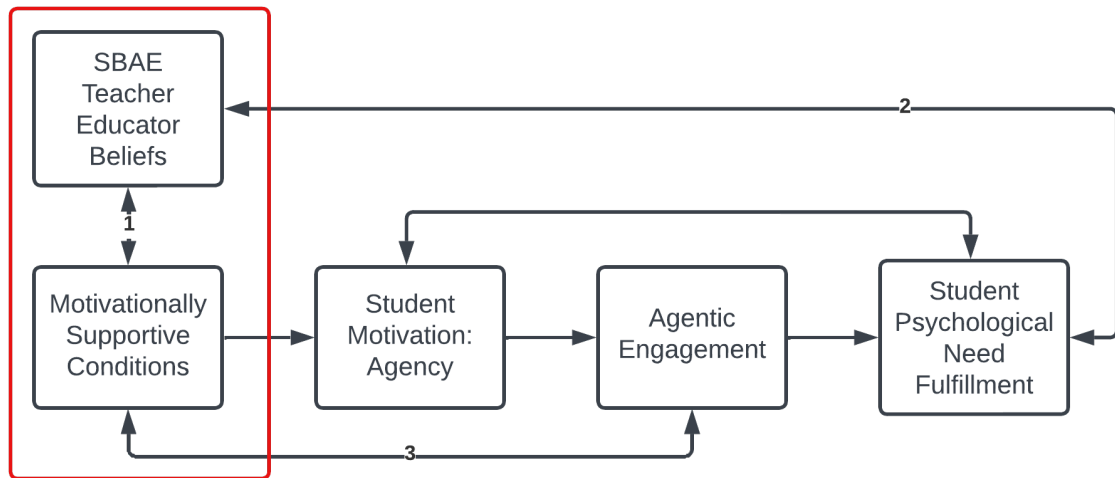
The need for students to feel as though they are an agent of their own learning

offers known benefits such as need-fulfillment leading to increased motivation.

Environmental conditions, including influences from peers, teachers, school structure,

and pedagogical teaching strategies influence students' motivation and academic

outcomes (Cochran-Smith et al., 2022; Reeve & Jang, 2022; Zambrano et al., 2022).

Preservice teachers are being prepared to enter the field of teaching and are encouraged to

act with agency in their future classroom (Cochran-Smith et al., 2022). We know that

agentic engagement promotes student motivation (Patall et al., 2018; Reeve et al., 2022;

Reeve & Jang, 2022). However, there remains a lack of exploration regarding how

teacher educators can integrate student agency and agentic engagement into preparation

programs to enhance student motivation and interests, underscoring the need for further

research in this area (Cochran-Smith et al., 2022; Kaplan & Madjar, 2017). Grounded

theory methodology was chosen to allow for these processes to emerge.

Chapter 3. Methodology

Purpose & Research Questions

The purpose of this grounded theory study was to conceptualize the process to support agentic engagement within the context of SBAE teacher preparation programs. The following research questions guided this study:

1. What do SBAE teacher educators believe about agentic engagement and preservice teacher motivation?

2. How do SBAE teacher educators integrate agentic engagement beliefs within a teacher preparation program?

Research Design

Agentic engagement has been explored in the broad context of education but not from the perspective of a teacher or educator or within the context of SBAE. Grounded theory research allows theory to emerge from different angles, constructing comprehensive explanations (Corbin & Strauss, 2015). Generating a substantive theory for SBAE teacher educators can establish a foundation for future agentic engagement research in teacher educators and SBAE. We know that agentic engagement is a reciprocating interaction between student and teacher and incorporated, in some cases intentionally or unintentionally, and exploring a process is one of the key tenets of grounded theory methodology (Corbin & Strauss, 2015). This work is guided by Corbin

and Strauss (2015) who view grounded theory as a way to understand complex social interactions (e.g. between teacher educator and preservice teachers within the context of agentic engagement).

Pragmatist Epistemology

I approached this grounded theory study from a pragmatic lens. Historically, epistemological roots of grounded theory lie in pragmatism and interactionism (Corbin & Strauss, 2015). Pragmatists view reality as a construct that cannot be separated from the researcher, as reality only exists through people's experiences (Corbin & Strauss, 2015). From the philosophical underpinnings of Dewey and Mead, both rooted in pragmatic epistemologies, knowledge is created through action and interaction (Corbin & Strauss, 2015). Working under a pragmatic lens, I aimed to capture SBAE teacher educators' experiences with students and how their motivational beliefs influence engagement. The pragmatic lens allowed me to explore the process of motivation and student agency through the experiences, stories, and artifacts of participants.

Positionality Statement

As well as my epistemological lens, it is important to state my positionality that influences the research I conduct (Creswell & Poth, 2016). My identity as an educator stems from my family's connection to education. My grandmother, mother, and aunt are all educators in their respective forms. However, my passion for agricultural education sprouted through my own inquiry and passion. My view of SBAE is not watered down by my previous experiences but enhanced by the lack of my own previous experience. I consider myself a non-traditional SBAE teacher. I cannot claim I have experience within

a high school agriscience program as a student because I was not enrolled in one myself. I came into SBAE as a product of an animal science major who had an innate passion for teaching because of my built-in family role models. Following my time in college for my bachelor's and master's degrees, I taught high school agriscience in a suburban program in Gilbert, Arizona for three years. As embarrassed as I am to admit, I often found myself focused on FFA and SAE aspects because I compared myself to the next program whom had a state winning CDE team each year. However, in my defense, that is what my students were passionate about and interested in pursuing. As I think about my time teaching, I think about the student agency I encouraged and thwarted over my time teaching. I may not have been the most autonomy-supportive teacher. However, I felt like I attempted to allow students to take ownership of their own learning outcomes. Following my time teaching, I began my journey in a Ph.D. program at The Ohio State University to achieve my career goal of being a teacher educator. I began studying motivation and the "why" behind teachers' behaviors. I recognize these prior experiences as motivators to study teacher educators and their agentic engagement integration. I wish all teachers integrate agency encouragement for their students, but I bracketed this aspiration and my previous research experiences.

Participants

Participants in this study included eight SBAE teacher educators representing each of the North Central, Southern, and Western Regions of the American Association of Agricultural Educators (AAAE). Selection criteria sought to include participants who taught at least one teacher preparation class during the fall or spring semester and

36

supervised at least one student teacher during the spring semester. A recruitment email (Appendix A) was sent to the American Association of Agricultural Educators (AAAE) public listserv seeking participants who met the selection criteria. Interested participants completed a Qualtrics questionnaire (Appendix B) that sought to identify eligible participants. If they were determined eligible, participants were contacted and invited to participate in the study. After three emails were sent to the AAAE listserv, 14 individuals responded. Of the 14 individuals who responded, 10 were deemed eligible. Emails were sent to the 10 eligible participants inviting them to participate in the research study. Two eligible participants did not respond to the invitation request to participate invitation email. Pseudonyms were used throughout the description of the findings to protect the identities of the participants. Years of experience ranged from first year faculty to individuals who have 27 years of experience. Due to confidentiality concerns, the number of years was not disclosed to protect the identity of participants. Further, due to the small, cohesive community of SBAE teacher preparation programs in the U.S., Jordon requested their demographic information remain confidential in publications related to this study. Participants were required to have internet access for Zoom interviews and classroom video observations. Additionally, all participants verbally consented during the first interview of this study (Appendix C). In Figure 3, I have outlined the demographic characteristics of the participants.

Figure 3

Demographic Characteristics of Participants

Pseudonym	Gender	Region
Aspen	Female	Western
Jordon	[BLIND][1]	[BLIND][1]
Dallas	Male	Southern
Austin	Male	Western
Sedona	Female	North Central
Orlando	Male	North Central
Lincoln	Male	Southern
Jackson	Male	Southern

[1]Blinded demographic information to protect the confidentiality of participant

Context: SBAE Teacher Preparation Programs

Under the parameters of grounded theory, defining context within a study sets the stage for the story to be told by theory development rather than reporting descriptive statements (Corbin & Strauss, 2015). Corbin and Strauss (2015) define *context* as:

> a broad term that includes events, the set of circumstances or conditions that make up part of any situation, the meanings given to these, action and interaction persons take to manage or achieve desired outcomes and the actual consequence that results from their action (p. 155).

In relation to this research, context plays a key role in identifying data sources and throughout the data analysis process (Corbin & Strauss, 2015). SBAE falls within the parameters of authentic learning (Herrington et al., 2014; Rule, 2006). Rule (2006) explored authentic learning and describes it as a pedagogical tool to provide adult learners experiences that mimic real, workplace environments. A literature review (Rule, 2006) of authentic learning experiences reports four common themes across research within the context. Authentic learning can be conceptualized in the following four parts;

(1) real-world, practical experiences that allow the individual the opportunity to experience day-to-day life, (2) ability to participate in inquiry-based and metacognition pedagogy, (3) interact with peers and colleagues in a social learning context, and (4) individual can identify choice in practical application of learning. During the process of data analysis, authentic learning supports action-interaction concepts that cannot label themselves as codes, categories, or themes but support connections that create a story through grounded theory methodologies (Corbin & Strauss, 2015).

Data Sources

When researching motivation, researchers discuss the difficulty of capturing motivation through a single source or type of data (Schunk, 1991; Ryan & Vansteenkiste, 2023). Agency and agentic engagement can be observed across multiple data sources. I collected six qualitative data sources: initial interviews, classroom observations, field notes, program artifacts, teacher educator journal reflections, and post-observation interviews. Collecting multiple data sources allows researchers to achieve data saturation as a substantive theory develops (Creswell & Poth, 2016).

Initial Interview

Initial interviews were conducted to explore teacher educators' beliefs of agentic engagement and preservice teacher motivation. As stated previously, engagement can be observed in a variety of ways; behaviorally, affectively, cognitively, and agenticially (Fredricks et al., 2016; Reeve & Jang, 2022). Agentic engagement influences the flow of instruction and student motivation. Beliefs of agentic engagement, agency, and student motivation are unique to each individual; thus, interviews were an important part of data

collection. Semi structured interview questions were structured to explore teacher educators' beliefs of agentic engagement and student motivation based on illustrative examples of students' agentic engagement proposed by Reeve and Shin (2020). Interview questions can be found in Appendix D. All interviews were audio recorded and transcribed verbatim.

Classroom Observations

Classroom observations were conducted to capture teacher educators' interaction with agentic engagement. Teacher educators were recorded via Zoom and observed online by the researcher. Video recordings were transcribed verbatim. Literature tells us teachers may offer students an "engagement invitation" where teachers use inviting language for students to pursue interests or present learning activities in a needs-satisfying way (Reeve & Shin, 2020). Teachers may also make an "engagement request" to students. Teachers may do this through phrases such as, "doing this activity is useful because…" or "displaying patience" while students are navigating a challenging learning activity (Reeve & Shin, 2020). Reeve and Shin (2020) focused on K-12 teachers; thus, observations were focused on teacher educators' integration of beliefs of student agency in a college classroom. During classroom observations, I observed live during course instruction and took field notes of participants behaviors and interactions with students. Transferring findings from secondary settings to post-secondary settings is not always equitable, many differences exist between the needs of youth and adult learners (Holmes & Preston, 2020). To address the difference between youth and adult learners, I positioned the context of this study around authentic learning to situate data collection

and analysis that aligned with grounded theory methodologies (Corbin & Strauss, 2015). Further, classroom observations were audio and video recorded. Audio recording was transcribed verbatim and coded. Video recording was used for stimulated recall within the post observation interview.

Field Notes

Field notes were utilized to capture the in-the-moment emergence of agentic engagement and student motivation during the initial interview, classroom observation, and post observation interview. Additionally, field notes were used to record any instances of student agency emergence that could be used for the stimulated recall portion of the post observation interview.

Program Artifacts

Program artifacts were collected from participants to capture the emergence of agentic engagement through programmatic expectations set by the teacher educator (or team of teacher educators). A list of suggested artifacts was sent to participants but ultimately they had the autonomy to submit artifacts that aligned with their program and experiences I observed. Artifacts submitted for review included course syllabi, student teacher handbooks, early field experience expectations, assignment outlines and expectations, curriculum outlines, course content, slide decks, handouts, required readings, and student teacher observation forms.

Figure 4

Topics of Classroom Observation and Artifacts Provided by Each Participant

Pseudonym	Classroom Observation Topic	Artifact	Artifact	Artifact
Aspen	FFA Chapter Officers and Committees	Slide Deck	Advisor Handbook Example	Student teacher Observation Form
Jordon	Start and Finish of a Lesson	Slide Deck		
Dallas	Good Communication Skills & Business Etiquette	Link to TedTalk	Student Teacher Observation Form	
Austin	Student Motivation	Slide Deck	Student Teacher Observation Form	
London	Unit Design	Slide Deck	Student Teacher Handbook	Student Teacher Observation Form
Orlando	Course/Curriculum Design	Course Syllabus	Student Teacher Observation Form	
Dakota	Safety in Vocational Agriculture & Responsibility and Liability	Textbook for Class	Daily Quiz and Answer Key	Course Syllabus
Jackson	Developing Agriscience Curriculum	Slide Deck	Course Syllabus	Student Teacher Observation Form

Teacher Educator Journal Reflections

Participants completed journal reflections after the teaching observation and a student teacher visit. Journal reflections were collected via a Qualtrics questionnaire. One

journal reflection focused on the classroom observation reflection and the other focused on the student teacher visit reflection. Questions were created based on emergent findings from the initial interview and program artifacts. Teacher educators were asked to answer 10 short response questions to be conscious and respectful of the participant's time. Journal reflection questions can be found in Appendix E (classroom observation) and Appendix F (student teaching visit). An incentive of $5.00 per journal reflection was used to encourage participants to complete journal reflections during the study.

Post-Observation Interviews

Post-observation interviews concluded data collection. Questions were created from emergent findings from previous sources of data. In addition to interview questions, I used stimulated recall to capture students' beliefs about agency and integration as they emerged. This provided participants with a way to reflect on their actions and offer insights into their beliefs. Stimulated recall is described as an introspective technique built for participants to explain their thoughts behind processes and decision making after listening or watching a stimulus to prompt recollections (Gass & Mackey, 2016). All post-observation interviews were audio recorded for transcription purposes.

Data Collection

Data were collected over the 2023 autumn and 2024 spring semesters. Initial interviews were the initial point of data collection. During the initial interview, I asked the participants to share student teacher handbooks, early field experience expectations, and syllabi for preservice courses via email to my personal OSU address. Participants were then asked to video record via Zoom a class they teach to preservice teachers. After

the classroom observation. Each participant completed the classroom observation and student teaching journal reflections. Journal reflections could occur at any point after the classroom observation. Field notes were conducted during classroom observations. The last source of data collection was a final one-hour post observation interview. Questions for the post observation interview emerged from categories from opening coding of the initial interview, program artifacts, and classroom observation.

Data Management

Six data points across eight participants could be overwhelming to manage. I used Teams to store, analyze, and organize data across interview transcripts, observation transcripts, field notes, journal reflections, program artifacts, and memos. Having data in one accessible place made managing the large amount of data being collected to be readily available for ease of analysis. All data was transcribed by TurboScribe, an online transcription service. Once data were transcribed, I reviewed each transcript for accuracy before starting data analysis.

Data Analysis

Due to the nature of grounded theory methodology, data collection and analysis were conducted simultaneously, often referred to as constant comparative analysis (Corbin & Strauss, 2015). Six data sources were included in data analysis: (1) initial interview, (2) classroom observation, (3) field notes, (4) program artifacts, (5) journal reflections, (6) post-observation interview. I utilized a three-step coding process consisting of open coding, axial coding, and selective coding (Corbin & Strauss, 2015). Interviews, classroom observations, and journal reflections were used as primary data

sources. Field notes and program artifacts were used as ancillary data sources. All interviews and observations were transcribed verbatim to ensure accurate representation of raw data. I employed a constant comparative approach across all data sources during analysis, continuing until saturation was reached for a specific idea (Creswell & Poth, 2016). The coding approach aligned with the previously outlined epistemological stance, reflecting a pragmatic approach to the study. This approach allows participant experiences to guide the emergence of the central phenomena (Corbin & Strauss, 2015). Open coding seeks to develop categories from initial codes from the data (Corbin & Strauss, 2015). Further, axial coding is used to create connections between categories and selective coding creates a clear picture ending with the development of theory (Corbin & Strauss, 2015).

Open Coding

Opening coding was used to explore text, in this case, interview transcripts, field notes, program artifacts, and reflective journals, for notable categories supported by the source of data (Creswell & Poth, 2016). Open coding allowed for the large data set to be reduced to a smaller set of sub-themes and categories that characterize the motivation and engagement beliefs of participants (Corbin & Strauss, 2015). Open coding occurred as I analyzed the initial interview, classroom observation and program artifacts. I examined all data sources as they became available to generate initial codes that influenced data collection (Creswell & Poth, 2016). Analysis techniques encompassed posing further questions as I memoed, making comparisons, and drawing upon personal experiences, as recommended by Corbin and Strauss (2015). Once the initial coding of interviews was

complete, I confirmed that the initial research questions guided the central phenomenon of this study (Corbin & Strauss, 2015). However, it became clear that the nuance of agentic engagement was not easily defined by participants, but I was able to identify clear categories related to student-directed engagement.

Axial Coding and Changes to Research Question Two

Following the opening coding process, I continued to analyze the data using axial coding strategies. The purpose of axial coding is to connect causal conditions, strategies, context, and intervening conditions to the central phenomenon (Creswell & Poth, 2016). Corbin and Strauss (2015) further explain axial coding as a way to bring data back together in a new way through data analysis. I began to connect participants' beliefs of student agency to their practices. Through this process, I connected codes, context, and observations through the initial interview, classroom observations, program artifacts, and journal reflections.

The nuanced idea of agentic engagement was not conceptualized by teacher educators as anticipated and I made the decision to change research question two. My original question was: How do SBAE teacher educators integrate agentic engagement beliefs within a teacher preparation program? With the realization that SBAE teacher educators could not conceptualize agentic engagement, the new research question became: How do SBAE teacher educators integrate beliefs of student motivation and agency within a teacher preparation program? Using this question as a guide, I applied the new research question to all subsequent data collected and analyzed. New data emerged to understand teacher educators' beliefs of integration of their beliefs, and

saturation had been achieved (Corbin & Strauss, 2015). Figure 5 provides an example of

my coding scheme for a portion of Motivational Beliefs.

Figure 5

Coding Scheme for a Portion of Motivational Beliefs Theme

Overarching Theme	Category	Sub Category	Code
Motivational Beliefs	Students Innate Desire to Teach	Choice in SBAE as a career	-Students acknowledge reality of SBAE -Students driven to be a SBAE teacher -Students working toward similar end goal -Motivated students will have a successful career -Students seek a stable career
		Unsure of career path	-Questioning major/career path -Students express low confidence in teaching ability -Compare themselves to peers -Needs are being fulfilled -Reflections lack connection to future career

Memos were captured throughout the entire process to capture my reflection on

data during the collection and analysis. I used voice memos to capture my thoughts and

transcribed voice memos verbatim. Corbin and Strauss (2015) suggest memos explore

relationships, asking questions that guide data collection and analysis, and create

meaning to data. I used memoing as a way to identify gaps and discrepancies of

motivational beliefs and the way they enact their beliefs among participants. Further,

memoing helped me establish my central phenomena of SBAE teacher educators' beliefs

of student motivation and how they enact their beliefs. At this point in the process, I

concluded my research questions continued to guide this study forward. Figure 6

provides an example of a memo during data collection during Aspen's initial interview.

Figure 6

Memo Connecting Context of SBAE Teacher Preparation Programs to Motivational

Beliefs

Data Excerpt	Memo Connecting to Data Excerpt	Guidance for data collection
Aspen: I tend to be pretty empathetic and I think that drives how I interact with students and how I make some of the decisions that I make about how to treat a student or how to choose what the next step might be or help them to collaboratively choose what the next step might be for them.	Beyond instructing during the classroom, Aspen reveled her motivational beliefs overlapped with her mentorship and advising beliefs. Know that context of teacher preparation programs, this assisted me to make connections between her beliefs of motivating students and the environmental factors that influence the day-to-day job of SBAE teacher educators. Question: Where else do these beliefs arise within SBAE teacher preparation programs?	First, I was conscious of how I asked reflection questions that allowed participants to reflect on their actions and how they were connected with their beliefs. Second, I intentionally asked questions in the post observation interview addressing participants beliefs of motivation outside of instruction as context of SBAE teacher preparation programs played a key role in identifying connections between codes and categories.

Selective Coding

Selective coding is the final phase of coding in grounded theory methodology and allows the researcher to attempt to create a story from the data, connecting categories back to the central phenomenon (Creswell & Poth, 2018). During the selective coding phase, I was able to create connections between teachers' motivational beliefs, integration of their beliefs, enactment of their motivational beliefs, and program structure constraints. The data reached saturation as I coded the post observation interviews and the final result was the development of a substantive theory that explained the central phenomenon (Corbin & Strauss, 2015).

Validation Strategies

During this study, I engaged in validation strategies described by Creswell and Poth (2016) for general qualitative research. Additionally, I followed Lincoln and Guba's (1985) strategies to uphold qualitative validation through four concepts of trustworthiness. I collected six data sources throughout the duration of the study and used strategies of triangulation to corroborate evidence and validate the findings (Creswell & Poth, 2016). During the data collection process, I made memos during data collection and analysis to explore questions arising during observations and analysis, establish connections between emerging categories, and record my thoughts as findings emerged (Creswell & Poth, 2018). Additionally, Lincoln and Guba (1985) suggest that trustworthiness is upheld through credibility, transferability, dependability, and conformability. The first, credibility, was upheld through prolonged engagement in the field of multiple interviews and classroom observation (Lincoln & Guba, 1985). Further,

triangulations between the six data sources support the credibility of the study (Lincoln & Guba, 1985). Member checks were used to check the substantive theory presented within this study (Lincoln & Guba, 1985). I contacted participants after I developed several drafts of the substantive theory and asked participants to provide feedback. Secondly, transferability was upheld through the use of rich, thick descriptions. Lastly, I upheld dependability and conformability through storing raw data to ensure a clear record of research activities (Lincoln & Guba, 1985). Throughout the entire study, I also engaged in reflexivity by examining my own position within the data and how it shaped data collection and analysis (Creswell & Poth, 2018).

Limitations

1. The generalizability of the findings from this qualitative study is constrained to SBAE teacher educator participants.

2. This study focused on a specific group of eight SBAE teacher educators representing all three regions of AAAE. Findings may not be representative of all teacher program in the United States.

3. Data were collected virtually due to traveling and time constraints.

4. The influence of the researcher may have caused teacher educators to alter their typical teaching pedagogy.

Purpose and Revised Research Questions

The purpose of this grounded theory study was to conceptualize the process of supporting student agency within the context of SBAE teacher preparation programs. The following research questions guided this study:

1. What do SBAE teacher educators believe about student motivation and agency within a teacher preparation program?

2. How do SBAE teacher educators integrate beliefs of student motivation and agency within a teacher preparation program?

Outline of Findings

Findings emerged into five main themes: (1) beliefs of student agency, (2) agency supporting practices, (3) contextual influencers of SBAE teacher preparation program structure, (4) prioritizing and justification of beliefs, and (5) approaches to align beliefs of agency to agency supporting practices. Within the findings, I expand on the main themes, sub-themes, categories, and connections between the main themes through approaches, and how the findings support the substantive theory conceptualizing SBAE teacher educators' beliefs of student agency. Found in Appendix H is a figure associating each theme with the studies' research questions providing a visual flow chart of findings.

My aim is to tell a story of how participants conceptualize their beliefs about student motivation and student agency. To tell a story, I must first exclusively define motivation as it is conceptualized by participants. Motivation is conceptualized in two ways, and this is reflected throughout the five themes within the findings. The first is the

definition of *student agency*, which reflects the definition found previously within chapter two, where students' actions are motivated by their own interests and values, and they have a sense of control over the intended outcome. The second is *student motivation*, which also mirrors the definition found in chapter two and offers a broader view related to students' motivation that is not connected with students' sense of agency. The findings highlight the emergence of student agency as a central focus but also emphasize the integral role of student motivation in understanding both motivation and agency within an SBAE teacher preparation program. I want to be explicitly clear in the distinction between the two definitions as I present the findings. Additionally, as I discuss the findings of this study, several themes and sub-themes emerged through conceptualizing student agency, student motivation, or a combination of both terms. I will denote the term I am explaining as it relates to the theme, sub-theme, or category I am presenting. Furthermore, the emergence of these two distinct terms can be attributed to participants finding it challenging to conceptualize the nuanced term of student agency separately from their understanding of general student motivation.

I presented the findings by introducing a visual depiction of the theory first, describing each main theme, and then explaining the processes connecting themes within the theory through three approaches identified by participants. The substantive theory is presented vertically, shown in Figure 7, flowing from the top of the model to the bottom. The top of the model represents beliefs of student agency and the bottom of the model represents agency supporting practices. Between beliefs and practices emerged two themes. The first was a filtration process I called prioritization and justification of beliefs.

The second were barriers to integrating student agency, which I called contextual influences of SBAE teacher preparation programs. As I describe each theme throughout the findings, I will include a summary of each theme and how it connects to substantive theory.

Figure 7

Approaches of SBAE Teacher Educators' Integration of Beliefs of Student Agency
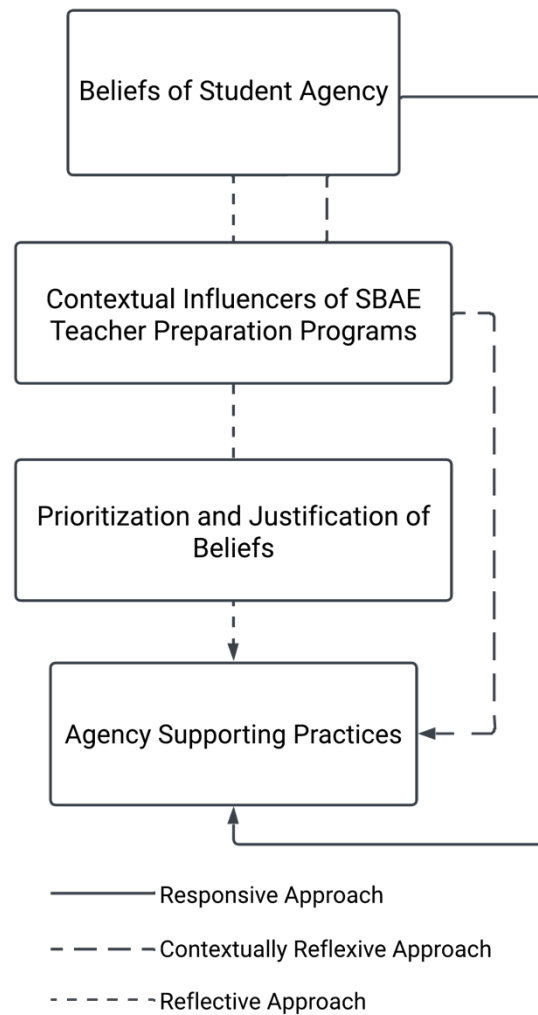
Beliefs of Student Agency

The first major theme emerged as SBAE teacher educators' beliefs of student

agency. Four main beliefs of student agency emerged: (1) Student's innate desire to teach

SBAE, (2) students are unique with individual interests, (3) student's self-efficacy

contributes to agency, and (4) students recognize their own growth. Beliefs of student

agency emerged as a starting point driving participants' conceptualization of student

agency within the SBAE teacher preparation programs. Further, student agency overlaps

with student motivation beliefs. However, beliefs of student agency exclusively support

students self-directed engagement within the program.

Central Belief: Student's Innate Desire to Teach SBAE

> *I think we want [SBAE] students who are as passionate as we are about working*
>
> *with the next generation of young people that are going to go into the career of*
>
> *agriculture. -Austin*

Students' innate desire to teach SBAE emerged as a centric sub-theme within the

theme of and beliefs about student agency. For participants, the understanding of student

agency revolved around the idea that students needed to vocalize and express their

aspiration to teach SBAE, as this desire is intrinsic to each student and contributes to

student agency. Furthermore, participants believe that when students are able to vocalize

their goals and aspirations of teaching SBAE, they are also able to articulate and

influence the experiences, opportunities, and challenges they wish to engage in, in the

SBAE teacher preparation program through their agency. It is important to note that

students' agency does not arise solely from an innate desire to teach. Rather, students

become more engaged and seek out their personal interests in teaching SBAE when they have a clear career direction. This motivation influences the flow of instruction because their agency is aligned with their chosen career path.

The ways in which students articulate their innate desire to teach SBAE varied between participants. Jordon explained that students who were excited and motivated to enter the SBAE classroom "are pretty vocal about what they want to know." Jordon further shared students will come in with questions or experiences [they had as a student] that they want to talk about." Jordon believes that students should ask questions about teaching and education through their own initiative. Students often want to "debrief about an observation during their early field experience or share an exciting moment with me. And I enjoy listening to why they are excited to teach [SBAE]," states Jordon.

As this theme emerged, it became clear that participants categorized students into two groups, students who knew this was their career path and students who didn't know what they wanted to do post-graduation. For participants, it was clear that students who were vocal about their desire to teach SBAE were able to agentically engage. Lincoln explained:

> We've got a group that has always wanted to be an ag teacher and this is why they
> want to become an ag teacher. And then we have the other side of it is a group
> that has no idea what they want to do.

Students who were uncertain about their future career paths within SBAE were less self-directed to act on their agency. Jackson further added, "Students who are secure in their

career paths engage in a way that seeks to fulfill their goals of becoming a [SBAE] teacher."

Lincoln elaborated on how he reminds students of their goals and drive to become a SBAE teacher educator. Lincoln emphasized the importance of understanding why students wanted to enter the profession. He stated:

> Students have to recognize that they need to mentally prepare themselves for the challenge of teaching and I have to remind them 'You will get out of this low point because of the career path they've chosen' and usually they can remind themselves of their goals.

A student's innate desire to teach further emerged when participants discussed students questioning if their desire to teach was truly an aspiration they sought to fulfill. Aspen shared a story about a student who realized that teaching SBAE was not the right fit for them. She shared, "Maybe they are not sure about this career path anymore. And that happens." As she discussed this student's decision, she made a point to tell me, "It takes courage to admit that and talk to your advisor. In some ways, that seems like student agency." Aspen further shared that some students just "want to extend their FFA life and then start to realize 'this isn't what I want to do with my life anymore,' and I have to support them through that decision." Participants indicated that some students may not discover the innate desire to teach, especially those who entered the teacher preparation program with the goal of replicating the SBAE program they experienced in high school or as FFA members. Replication of their own high school experiences does not create an opportunity for student agency. Replicating offers them a passive route to wanting to

56

teach SBAE. Participants noted that the complexities of teaching SBAE require students to take ownership of their desire to teach and to seek out opportunities beyond what they experienced as students.

In some cases, students needed to engage in the SBAE teacher preparation program beyond the classroom in order to explore their agency. Aspen explained that students' innate desire to teach SBAE is often expressed after they conduct the student teaching placement interviews and a spark ignites their innate desire to teach. Aspen further explained:

> [Students] can get bogged down in the day-to-day of classes. You'll have somebody who gets really excited about doing a teacher interview [for student teaching placement], they talked with a potential cooperating teacher and they're like, 'oh my gosh, [potential cooperating teacher] was so cool I want to tell you all the things I learned from her and why I want to be placed there.'

For participants, it is important that students can express their motivation to teach in a variety of experiences. Students may struggle to express their innate desire to teach SBAE during classroom instruction but flourish within opportunities outside of the walls of the classroom, just as Aspen has described.

The innate desire to teach SBAE initiates conversations between SBAE teacher educators and students. Understanding that students express their excitement to enter the field as SBAE teachers creates an opportunity for the teacher educator to support student motivation and student agency. When I asked Dallas about his beliefs regarding motivation, he stated, "I drive home the importance of understanding who they are, what

57

motivates them to teach, what turns them off [to teach]. What might they be missing [in the program] and how I can help each their goals [of teaching]." The motivation behind the belief that students must possess an inherent desire to teach SBAE was crucial for participants in understanding student agency and how students can actively engage in influencing classroom instruction and the experiences integrated into the SBAE teacher preparation program.

Students are Unique with their Own Interests

Participants conceptualized student agency as unique to each individual student. Furthermore, participants conceptualize beliefs of student agency through the shared understanding that students are unique and seek to express their own interests. Within this sub-theme, participants emphasized that student agency requires individual contributions to influence instruction and programmatic opportunities. Participants believed that students are motivated by their interests stemming from their personal background, focus areas of agricultural content, and hobbies outside of the classroom. Further, participants valued each student's distinctive agentic contributions during instruction and student teaching placement discussions.

Jackson shared that "some of [his] students have very traditional agricultural backgrounds. They grew up on farms, ranches, things like that. Whereas some of our other students have no background in agriculture, but they may be very familiar [with agriculture]." This delineation between 'traditional agriculture students' and 'non-traditional agricultural students' guided participants in the way they talked about how students' interests relate to agency. For example, Jackson further goes on to explain that

58

"[traditional agricultural students] seek out opportunities to share their agricultural backgrounds, like being raised on a farm or their SAE project." Students with non-traditional backgrounds were much more vocal about seeking out opportunities to learn within the three-circle SBAE model, specifically within FFA and agricultural content areas. Jackson states, "[non-traditional students] have a lot of STEM-based coursework from their community college credits. But we really need them to take a lot more of their core agricultural content to be able to put those STEM concepts that they know into context in terms of ag education."

While individual students are unique, cohorts of students are also individually unique. Participants emphasized that certain cohorts are more motivated to take action on agency as compared to others. A cohort is a group of students bound by the year and semester they student teach. For SBAE students, cohort formation is crucial for supporting emotional and motivational needs during a stressful time. For example, participants shared that some cohorts only engage in the minimum expectations. Within these minimum expectations, students do not seek to integrate their interests. Furthermore, students who do not act in an agentic way tend to be surrounded by other students who also do not act agentically. Environmental factors' influence on unique interests can affect both the individual and the group. Aspen highlights the distinctions among student teaching cohorts, stating, "It's very clear from one cohort to the next, like a clear line, how things are different and how much students want to participate in general." When I further questioned Aspen to elaborate on why individual differences were crucial in her conceptualization of motivation, she expressed, "I don't want them to

feel like they have to fit into this cookie-cutter mold of an ag teacher because ag teachers can come in all shapes and sizes and still be effective." Based on individual students' and cohort interactions, interest levels vary in how they are expressed and explored through students' initiated actions. Individual interests drive students' motivation to act on their agency.

Further, students' unique backgrounds allow for their agency to be expressed during classroom instruction. Students with different backgrounds express their agency by sharing their own values, beliefs, experiences, and backgrounds. Aspen shares, "The more ideas we can have, the better the discussion will be, and the more opportunities students will have to think beyond their own experiences." Building upon this idea, Sedona identifies the significance of respecting each individual student's agency through unique experiences. She stated, "I think everyone's experience is unique and valid, and so I never ever want to diminish that." SBAE teacher educators recognize students' unique backgrounds and interests, and the influence these factors have on their participation in discussions and opportunities to further support and foster student agency.

Student's Self-Efficacy Contributes to Agency

The third sub-theme to emerge within the beliefs of student agency was student's self-efficacy contributes to agency. This belief was prevalent in interviews, classroom observations, and reflections. It became clear that SBAE teacher educators recognized students' motivation and agency through the students' confidence in various aspects embedded in the SBAE teacher education program. As I dove into exploring student's self-efficacy, Orlando stated, "there's a wide range of motivations [among students]. But

at the core, I think it comes down to their own confidence to just do it [teaching]."

Jackson further connected students' efficacy to Bandura's (2001) Social Cognitive

Theory:

> To me, the vicarious experience component is important, and even though I'm
>
> their instructor and I've been doing this for years and things like that, a lot of the
>
> time it's very helpful to them to see someone do it and provide them feedback or
>
> discuss it or things like that, because that's what they're going to do.

Efficacy appeared as an indicator for participants as they discussed student motivation

and student agency. Participants indicated that when students were more confident, they

were generally able to engage in self-directed experiences and influence their agency.

Confidence began to emerge as participants talked about students' future career

decisions. Some of the conversations identified students questioning their major early on

within the program, while other stories shared students having a 'career crisis' during

student teaching. Students who were not self-efficacious in their ability to teach were

unmotivated to meet course expectations, which further increased their self-doubt in their

ability to be a teacher post-graduation. Furthermore, students with high self-efficacy were

able to use their confidence as a motivator to engage in their courses on their own. As I

read Jordon's reflection of a student teaching observation, I read through a response

about a student unsure of their career path. In our post observation interview, I asked

Jordon to tell me more:

> Our conversation was really, she didn't know if she wanted to be an ag teacher or
>
> not, and she didn't know if she had it in her to be an ag teacher. This was

stemming from peers who already knew so much, and she was feeling very put down by that. 'Well, they're here [with their teaching ability], they already know so much, and I don't know nearly as much as them.' So ergo, I'm not fit for this career.'

Jordon further explained that sometimes, peer comparison can thwart student's own efficacy. Jackson added, "I am sometimes fascinated, in a bad way, at how much anxiety and self-doubt they carry. They just don't believe they can produce the intended outcome, and because of that, it often discourages them from trying."

As I discussed students' efficacy within student teaching placements with Dallas, he stated, "I have seen young people just thrive when you put them in the classroom environment, they just find their confidence." However, on the opposing view, Orlando also conveyed a belief that students fear entering and expressing agency within their cooperating teacher's classroom related to students feeling efficacious. Orlando stated:

I think that the biggest challenge for a student teacher is that they know that this is not their program. And that makes them really nervous to do something really different. And then I think they carry that fear over to some degree to their new program, and it just kills their confidence.

When students are not confident within their environment of student teaching, their low confidence can thwart their agency. Participants described students with low confidence in their teaching as fearful to contribute to course discussions or volunteer to ask questions. Often, participants noted having to call on students with low efficacy to encourage engagement within the instruction. Austin summed up that students' self-

efficacy contributes to their agency. He further encourages students' efficacy by telling them, "Whatever you do, do it with confidence. Do it to the best of your ability. And if it doesn't work, you learn, you live, you try again." Self-efficacy is important for students as they explore their ability to act and gain self-confidence to pursue their motivation and agency.

Students Recognizing Their Own Growth

The next emerging sub-theme highlights the belief of student agency that students who recognize their own growth and development tend to be more motivated and engage on their own. Recognition of growth encourages students to act on their agency as they advocate for their own gaps and weaknesses as they develop their teacher identity. Jordon explicitly identified mindset theory (Dweck & Leggett, 1988) as a motivational belief. As Jordon reflected on the stimulated recall video of their classroom observation, I asked where this belief of student growth stems from. "It kind of goes back to mindset theory. You know, having a positive mindset of being able to come in and say, 'I can do this, I can learn from this experience, I know I need to grow in this area,'" stated Jordon as they explained how developing a 'teacher identify' comes from the conscious choice of students to not stay stagnant within their own prior experiences. Sedona supported the emergence of students expressing a positive mindset, "I think it's important that [students] approach teaching with an open mind and a growth mindset." A growth mindset allows students to recognize their areas of improvement. Sedona further adds, "I am worried for a few of my students from my class who came in and said, 'well, my mom's a teacher. My dad's a teacher. I know all the teacher things.'" For Sedona,

students' perception of teaching from their parents created a barrier for students to approach her courses and program with an open mind that allowed for student development.

As I explored the idea of student growth among other participants, Aspen connected student's growth back to their individual and uniqueness they bring into a teacher preparation program:

> Some [students] are the super creative types that may have these really neat interest approaches or have a really bubbly personality or wear colorful glasses or whatever it is that makes them unique. But at that point, they're still figuring out their teacher identity. And that develops over the four years they're in an undergrad program. *They* have to recognize learning to teach doesn't happen overnight.

For participants, it was easy to identify areas of growth they observed in students. However, in relation to student agency, it is more important for students to recognize their own growth in order to advocate for their own unique needs and areas of improvement.

To further support this idea of recognizing growth as a motivator for students, I asked Jackson about student experiences offered within the SABE teacher preparation program and what motivates students to reflect on their personal growth. Students were able to recognize the growth within themselves during their field placement experience. Jackson further added:

I've noticed, especially when students are completing their 40 required hours of observation, in their reflections that they turn in and some of the assignments that are associated with that observation course, they generally shift in perspective from seeing themselves as a student to a pre-service teacher. They begin to recognize their own development and I enjoy reading their reflections during that time.

As students develop and grow into their teaching identity, they become more capable of engaging agentically. Students are motivated by their success during experiences, and that success contributes to the development of a teacher who can extend their agency beyond the bounds of an SBAE teacher preparation program.

Recognition of growth is tied to the core belief that students must possess an inherent desire to teach. Without this intrinsic drive, the personal development an individual undergoes holds no value to future career aspirations. Sedona reinforced the central motivation belief by stating, "[students] have to be willing to learn things. [Students] have to be willing to grow because if you're not that's on you. You're not going to get anything from this class."

Summary: Beliefs of Student Agency and the Connection to the Substantive Theory

Beliefs of student agency emerged under four sub-themes: (1) Student's innate desire to teach SBAE, (2) students are unique with individual interests, (3) student's self-efficacy contributes to agency, and (4) students recognize their own growth. The participants' understanding of students' motivational needs is crucial for students' ability to act on agency. The emergence of beliefs about student agency centered around the

notion that students should possess the identified categories in order to act on their agency. Beliefs of student agency can emerge individually or simultaneously. When these beliefs occur simultaneously, participants noticed a greater likelihood of students asserting their agency within the SBAE teacher preparation program. Participants further recognized opportunities that were built into the SBAE teacher program to support student agency initiated by the SBAE teacher educator. These opportunities enhance students' motivation, thereby further supporting their agency within the SBAE teacher preparation program. The substantive theory begins with the emergence of beliefs of student agency, which were identified as the central phenomenon of the study. Within the theory, participants further described how these beliefs were integrated into an SBAE teacher preparation program. Within the next theme, I will explore how student agency beliefs relate to the identified agency supporting practices.

Agency Supporting Practices

The theme of agency supporting practices emerged next. Research question two explored how participants integrated beliefs into the SBAE teacher preparation program. The emergence of how participants integrate beliefs of student agency became clear within the first interview during open coding analysis and was further supported through the classroom observation and post observation interview. Within the theme of agency supporting practices, seven practices emerged: (1) providing space for students to act on agency, (2) building relationships, (3) clearly communicate course structure, (4) transparency, (5) connect students interests to real-world application, (6) foster cohort/peer support formation, and (7) positive encouraging feedback. As shown in Table

66

1, I connected the beliefs of student agency to agency supportive practices that emerged within this theme. As themes emerged, I triangulated data sources to explore the overlap of beliefs and practices. This table was created to visualize specific beliefs associated with specific agency supportive practices. As I introduce each agency supporting practice, I will include examples and interpretations of how participants further conceptualized student agency within the SBAE teacher preparation program.

Table 2

Motivational Beliefs Connecting to Agency Supporting Practices

Practices	*Beliefs*			
	Innate Desire to teach SBAE	Students are unique with their own interests	Students self-efficacy contributes to agency	Students recognition of growth
Providing space for students to act on agency	X	X	X	X
Building relationships	X	X		
Clearly communicate course structure	X		X	X
Connect student interests to real-world application	X	X		
Foster cohort/peer support formation	X	X	X	
Positive and encouraging feedback	X		X	X

Central Practice: Providing Space for Students to Act on Agency

> *My goal as a teacher educator is to support the motivational needs of my*
>
> *students. I can't, at the end of the day, make them motivated. But I can set the*
>
> *table for them to be motivated and provide opportunities for them to sit. - Sedona*

The beliefs associated with the agency supporting practice of providing space for

student agency includes the idea that students should have an innate desire to teach, that

each student is unique with their own interests, that students' self-efficacy contributes to

their agency, and that students should recognize their own growth. Participants identified

providing space for students to act on agency as a central practice, as they connected the

four emerging beliefs to this singular practice. Providing students with the space to

exercise agency became a central belief due to its interaction with all four student agency

beliefs in the first theme. As I explored various motivational practices used by

participants, the idea of allowing students the opportunity to express their agency

surfaced. The concept of space can be described as providing time for students to express

their interests or act upon their own free will, as well as physical space for students to

interact with the environment and explore their personal motivational interests.

Furthermore, students may need resources such as a reflection journal and one-on-one

meetings with SBAE teacher educators to feel empowered to exercise agency. As the

participants shared how they provided opportunities for students to exercise their agency,

it was evident that their approach effectively allowed learners to influence course

instruction and programmatic experiences beyond the classroom. During the final

interview with Sedona, I asked how students exercise their agency within her course. We

discussed several practices that emerged. As she wrapped up her thoughts, Sedona commented, "I have to tell them why [agency] matters. So I set the table for that and provide them the opportunities [to express their agency]." For Sedona, the table was a place where students could metaphorically go to and know that their agency to explore interests and influences would be welcomed.

Jackson's example further supports the practice of allowing space for students to explore their own agency. For Jackson, space meant providing choices that were built into required experiences built into the SBAE teacher preparation program. For example, students at Jackson's institution were expected to complete 40 observation hours during their early field experience as part of their licensure requirements. Within the student teaching handbook provided by Jackson, he described "giving students choice where they can fulfill those 40 hours so they don't feel restricted is important." Jackson's practice of providing space is integral to allowing students the opportunity to experience a diverse set of programs and mentor teachers. This helps students create their ideal program once they graduate and enter their first job. "I just set parameters about what I need from them. For example, in their 40 hours of observation that they complete, I provide a list of programs with a strong FFA presence or a strong classroom teaching component." Providing these parameters allows students to fulfill the requirements in a way that is autonomously-supporting their own interests and development.

The idea of providing space needed to be clearly communicated to students. Dallas emphasized that his practice for providing space included a statement found within the first point of contact, within his syllabus, Dallas emphasized, "students can have quite

a bit of influence and choice in my classes, I tell them up front, day one, the course syllabus says 'tentative' at the top." For Dallas, providing a tentative syllabus offered students the opportunity to suggest changes in course topics or assignments. Dallas's beliefs were reflected in the way he communicated about the flexibility in his course structure, which allowed students the opportunity to engage agenctically.

The idea of providing space emerged and connected to the belief of student agency as participants believed that students need to recognize their own growth. For students to grow individually, they need both space and opportunities to engage in course content and experiential learning. Additionally, providing space allows students an opportunity to express their desire to enter the teaching profession, their diverse backgrounds and values, and the areas of growth in which they wish to seek improvement within themselves. Dallas provided the example that his syllabus is always tentative, where he connected students' unique interests as a way for them to ask questions and guide course topics that interest them. Sedona further emphasized the importance of providing space for students to actively engage, enabling them to recognize their own abilities and increase their efficacy. This space also allowed students the opportunity to interact with their environment, leading to increased confidence in their teaching abilities.

During my conversation with Orlando about providing space, he agreed that "the beauty of [providing space] is that students are presented with the challenge of how they want to engage in a topic, and whatever they tell me, it's just my job to help set it up." Further, Dallas adds:

I want to see more engagement. But as an educator, I can't force that, can I? My

role is to provide an environment where students feel safe to engage. It's about

creating a space where they feel comfortable raising their hand and saying, 'I don't

get it.'

Participants highlighted that providing space allows students to speak up and exercise

agency. However, it also enables students to identify areas where their motivation and

agency may be hindered. For participants, providing space for students to act on their

own agency was foundational in their conceptualization of student agency.

Clearly Communicate Course Structure

A clear link between the course structure and student agency beliefs emerged as

participants stressed the importance of setting expectations for students within the SBAE

teacher preparation program. Participants relied on their belief that students have an

innate desire to teach SBAE, students' self-efficacy, and students' need to recognize their

own growth as they designed and prepared curriculum for students to engage with.

Within this sub-theme, two categories emerged to support participants in clearly

communicating their course structure: course flexibility and building in reflection.

From the perspective of participants, students seek out consistency, where they

know exactly which topics, expectations, and assignments come next. Further,

consistency increases student motivation by removing ambiguous instructions or

directions that thwart student agency. Within Orlando's classroom, students can expect

consistency of a daily course agenda and assignment deadlines and its role in motivating

students to understand the course details. Orlando's practice of providing a clear course structure is tied to his belief that students should be able to recognize their own growth:

> I truly believe that deep down, everybody desires consistency. In a classroom setting, consistency revolves around structure. The more we reinforce that structure, providing students with a sense of safety and predictability, the easier it becomes for them to be motivated to engage in the learning process.

Consistency that is clearly communicated increases student motivation. For Orlando, consistency looked like clear deadlines communicated in the syllabus and learning management system (LMS).

Aspen connected her beliefs that students should have an innate desire to teach SBAE to how she structures the courses she instructs by highlighting the relevance of a comprehensive syllabus in motivating students. She expressed her commitment to meticulously crafting the syllabus to ensure clarity in communicating expectations to students, stating, "I'm borderline obsessive when it comes to my syllabus. I really want to ensure I think through the learning outcomes and experiences for students." Aspen further states, "I hope that students can use my structure and expectations to be motivated to create their own structure and expectations that works for them."

Participants emphasized the importance of integrating opportunities for student agency into the course structure. Participants recognized that in order for their beliefs of student agency to be enacted, they needed to plan for students to share their interests and influence the class. Aspen described the first-day class expectations and how laying a foundation of expectations allows students to engage in open discourse that leads to a

72

respectful environment. I prompted Aspen to tell me about how she handles student-directed engagement and where and how she draws the line. Aspen responded:

> I don't mind when students challenge me and what I say. Well, sometimes I do. And it depends on how it's done. On my 'first day' slides, I have a statement: 'Disagreement, not disrespect.' We can disagree, you can give another idea, but if you're disrespectful, like that's not okay, because that's one of my other beliefs, right?

Aspen further highlighted the importance of connecting her beliefs of student agency that students have an innate desire to teach SBAE to the course structure during her journal reflection. She linked the classroom observation topic, FFA Chapter Officers and Committees, to a future assignment. Aspen mentioned that students have a sense of inherent motivation because they are all working toward the same goal of becoming FFA advisors. Aspen wrote in her journal reflection:

> The upcoming POA assignment that I mentioned during class also created a need to think about [FFA officers] carefully because they will have to design their own officer team and committee structure as a part of that assignment. I think this is an easy topic to gain buy-in and increase motivation because they are all going to be advisors so there is an inherent motivation.

Aspen's belief that students have an innate desire to teach SBAE is directly related with her providing clear expectations for the assignment. An overlap was observed between student agency and motivation during the interaction with Aspen. The assignment was designed to motivate students to think and act like future FFA advisors. However, upon

73

further reflection, she began to realize that the assignment structure was scaffolding student agency to support students' self-directed actions once they graduated from the program.

During my conversation with Jordon, the course structure supported student motivation in general. When students have a clear understanding about how course topics and assignments are connected, Jordon has observed increased confidence in students. Jordon further discussed the expectations that students should "come prepared for the topic at hand, even just to engage, provide answers, turn to a partner, or share an experience they've had." I further inquired about how students can be motivated to meet this expectation of coming prepared to class. Jordon mentioned relying heavily on the LMS provided by the university. Aspen confirmed the use of an LMS:

> [LMS] is the learning management system that we use here at [University]. So I use [LMS] really heavily because it's a static place where students can not only submit assignments, but also can see all the PowerPoints and course materials. And where they get there's a calendar, so they get pinged for announcements. And I also send out recaps and announcements through there, too.

Dallas also relies on the use of his university's LMS. He noted the importance of communicating when guest speakers are attending class. As part of his beliefs, Dallas emphasized the importance of providing opportunities for students to engage in the teaching profession and agriculture industry, saying, "I don't want them just to hear it from me. I want them to hear it from people in the trenches." He invites school principals, in-service SBAE teachers, and industry stakeholders to connect students to begin forging

74

relationships post-graduation. The LMS is a central place for Dallas to post guest speakers' contact information, content that was shared, and reflection questions on the topic.

Within the category of a clearly communicated course structure, two sub-categories emerged within. The following subcategories support student agency and student motivation.

Course Flexibility

The category of course flexibility became apparent as participants considered student agency as something that can be adapted for individual students. They highlighted the significance of course flexibility in fostering student agency. When students express their own perspectives and impact instruction, instructors need to incorporate flexibility within the course to support student agency and motivation. However, the participants also pointed out that it is important to clearly communicate the expectations around flexibility in order to support student agency. As I reviewed the course syllabi of participants, it became clear that assignments were structured with deadlines and an outline for each assignment. I began to see a lack of connection between the beliefs of student agency and the practice of providing flexibility. As I questioned participants about how student agency can occur in an educational system that provides clear boundaries, Orlando shared, "I want to give students latitude to make choices on how they apply the content." He further shared a story from a few years ago about a student who was struggling to see the purpose of a final assignment related to course design. The student could not look past unit design and how it played into the holistic

design of the entire curriculum. Orlando shared that the student was motivated to create

10-unit outlines with learning outcomes and assessments. He allowed this student to

make this modification. When the student completed the assignment, they verbally made

connections between units and met the course's learning outcomes. Orlando stated,

"Sometimes students just need to look at it through a different lens than I see it through."

This experience has stuck with Orlando, and he shares that within all of his classes,

everything is flexible, and he purposefully integrates flexibility into the structure of the

course he teaches. Flexibility was recognized by all participants to varying degrees.

Sedona noted that she purposefully plans flexibility within assignments. She shared,

"How can I provide flexibility within the assignments?" Flexibility I also observed within

the time bounds of classes and a semester. Sedona further added "I think it sounds like

such a scapegoat, but it's classroom time. Like I only teach 50-minute classes." Time was

a limiting factor for participants, and thus, flexibility opportunities for students were

imperative to support student agency.

Building in Reflection

Participants use reflection to monitor students' motivation and address any

challenges they experience while enrolled in the teacher preparation program. The

participants' belief that students recognize their own ability to achieve goals and improve

over time was reinforced by the process of reflection and integrating this practice into

courses. Different forms of reflection were incorporated into various courses, including

both structured and open-ended opportunities. While participants consider reflection a

critical aspect of the teacher preparation program, it's also important to provide students

with both the time and space, both physically and mentally, to engage in deep, critical reflection.

First, I observed that participants use physical journals for student reflection. Jordon mentioned that students have a manual guiding them to reflect on various aspects of their experiences during their time in the SBAE teacher preparation program. Jordon explained:

> [The Program] utilizes manual field books for student reflection, requiring them to complete this process in both their junior and senior years. Thus, students are expected to go through two field books, taking notes and submitting them as evidence of completion.

I probed Jordon to explain what students were reflecting on. Jordon provided example questions. One question asked students to "interview a teacher and inquire about their experiences balancing the three-circle model." Another question prompts students to share their ideal SBAE program.

The use of a reflective journal was further supported by Sedona's experience. Sedona worked in an SBAE teacher preparation program that valued reflection and intentionally integrated it into the course and program requirements. Students met with their assigned advisor periodically each semester. These check-in meetings not only served as advising meetings but were also used to reflect on student progress in classes, address their needs within the program, and seek feedback for programmatic improvements. Additionally, Sedona mentioned the use of notebooks as a reflection tool:

We're really big on reflection. So, you know this notebook where we ask them to

reflect a lot on personal experiences and their beliefs. We ask them to reflect in

their check-in meetings and all the teacher ed classes like [course name 1],

[course name 2], and [course name 3].

During both interviews, Sedona had the journals within arm's reach. She explained that

she transports the journals from her office to the class every week. Sedona took pride in

reading students' reflections and integrating them into instruction to address

misconceptions.

While some participants expressed the presence of structured reflection built into

every aspect of the SBAE teacher preparation program, others emphasized the

importance of integrating reflection into student teaching experiences. After I read

Austin's reflection about a visit with a student teacher, I asked him to expand on a

comment he made about sitting with the student teacher at the end of the day and

debriefing. Austin explained, "When I'm observing student teachers, you know, we get to

the end of the lesson, we get to the period of time of debriefing, you know, if you could

do it all over again, what would you do?" I asked Austin to tell me why he asks student

teachers open-ended questions. He responded, "I would never say that whatever they did

was right or wrong, but you know, you never know what life is going to throw at you so

let's talk about it."

Lincoln connects reflection to the central practice of providing space, "I don't

want to reflect for them, but I want to ask them the right questions to make them think

and to make them reflect about what they do." Regarding the provision of space for

reflection to occur, I probed Lincoln, asking him why he holds the belief that we shouldn't be reflecting for students. Lincoln responded:

> It's just getting them to critically think about [teaching], and hopefully it's going to standardize it so that each day when they teach, when they get home at the end of the day and they're driving home, they can reflect on how their day went and what they need to do differently tomorrow.

Reflection allows SBAE teacher educators to support student motivation and student agency by facilitating critical thinking. Participants aimed to ask open-ended questions that guide students to reflect on their experiences and make connections to their future careers as SBAE teachers.

Participants sought to provide opportunities for students to be self-reflective in their own growth. Dallas encourages students to think about their own growth, especially during his student teacher visits. Dallas said, "I constantly ask, 'how have you grown as a teacher? How do you want to keep growing as a teacher? What's contributed to your growth as a teacher?'" Dallas suggested that these questions allow students to recognize the growth that he sees in them. He further explained, "Students need to reflect on the 'failures' they've had and recognize they were able to pick themselves up and move on." For Dallas, students who could reflect on their failures were able to set goals and prevent their failures from happening again.

Transparency

The category of transparency emerged from interviews and classroom observation data sources. Participants identified their beliefs of innate desire to teach SBAE and

students' self-efficacy contributes to student agency supporting the practice of being transparent. Further, the transparency category extends beyond a clearly communicated course structure to include transparency in all aspects of a SBAE teacher preparation program.

Participants viewed transparency as a way to explicitly describe why or how they were doing a certain task to support student motivation. Further, transparency removes the unknown for students and provides opportunities for students to explore their agency.

During the discussion, the participants emphasized the significance of maintaining transparency throughout the entire process of student teaching placement. Each institution had a unique way of placing student teachers but each process revolved around a central idea of seeking student input through one-on-one meetings and placement interviews. Austin explained, "There's a ton of transparency throughout the entire process. I'm very transparent about how I select cooperating teachers at student teaching sites." Austin explained that students often seek to understand the reasons behind their placement in a specific area or school. Furthermore, students desire to have a voice in the placement process to advocate for their own strengths and weaknesses. Participants identified student teaching placement as the one area where students do have a voice and choice within the SBAE teacher preparation program. Lincoln contributed this to the transparency built into the placement process. In some form or another, students can provide input on the location of where they plan to live, assess if the potential cooperating teacher would make a good mentor, and determine the type of program they wish to be placed in to fulfill gaps in their previous experience.

Dallas further expands on this concept of transparency during their student teaching experience by stating:

I tell them that up front, if you're not having fun at what you're doing, especially as a teacher, oh my gosh, quit and go do something else because you're doing yourself a disservice. But more importantly, you're doing your students a real disservice because you're not happy in what you're doing.

Participants were unapologetically vocal about being transparent regarding their beliefs. Dallas connected his belief of students' innate desire to teach SBAE by informing them about what to expect during their student teaching placement.

Transparency further emerged within the confinements of instruction. I asked Jackson to share an example of how transparency supported student motivation:

The best example I can provide is in my methods of teaching agri-science class. They have a micro-teaching assignment to complete on a math-enhanced lesson, and everyone taking the class often talks about how challenging the math-enhanced lesson is because we're striving to be ag teachers, not math teachers, and the math content can be daunting. If they heed the warnings of previous students about the difficulty of the math-enhanced lesson, they approach it with dread, resulting in low motivation, especially regarding that specific assignment. However, if they give me a chance to guide them through it, explaining the process and the importance of creating such enhanced or STEM-integrated lessons, they usually overcome their initial apprehensions. Once they move past

81

their preconceived notions and begin to approach it objectively, their motivation
tends to improve.

Jackson's example echoes other participants' experiences of providing transparency during instruction. Providing transparent directions and steps offers students a view of the end goal of an assignment. During the classroom observation, Aspen introduced an assignment titled, "Lab Application Guide." Aspen provided all of the students with an example of the end product that students were to use as a guide. When I followed up with Aspen about why she provided an example, she stated, "I'm going to get them to understand the importance of having a lab application guide and really thinking through what directions you give your students so that they actually create what you intend for them to create." The emergence of transparency as a sub-category in the study revealed participants' views on its importance in explicitly stating tasks to increase student motivation and provide further application of student agency.

Summary: Clearly Communicate Course Structure

Participants emphasized that course structure can support student autonomy when clearly communicated to students. Teachers' beliefs about motivation and agency heavily influence course structure, as they have the most control over providing students with these elements within the bounds of instruction. Teachers heavily relied on flexible practices and integrated reflection to support student agency.

Connect Student Interests to Real-World Application

Participants valued the belief that students' unique backgrounds and interests drove the practice of connecting their interests to real-world applications. Students

expressed their interests through questioning, sharing personal stories, and finding choices within course assignments. Offering opportunities to connect real-world applications to assignments and experiences in SBAE teacher preparation programs enabled students to exercise their own agency, which is built into program expectations. I asked participants to share what their students are interested in and how they integrate those interests into the SBAE teacher preparation program. Dallas shared:

> I have a student who has a real passion for history, so he's taken several history classes and is considering pursuing it as a potential career path. As part of this exploration, he has also taken the necessary steps to become certified to teach history at the high school level.

Dallas supported his student's interests by finding a practical way to connect their passion for history to a teaching certification. Aspen had a similar response:

> Sometimes it's the type of questions students ask when they become really curious, like when they stop you after class and say, 'Hey, I was really interested in learning about working with students with special needs. Do you have any additional resources?'

Aspen's statement delves into how students can exercise their agency by pursuing their personal interests. For Aspen, it was important for students in her class to speak up and share topics they were interested in learning about. She tells her students, "If you have this interest, others may too."

To support student interests, Sedona conducts a syllabus scavenger hunt on the first day of class each semester. Embedded within the directions are questions designed to

help Sedona get to know the students better and learn what they are interested in learning: 'What do you want to learn this semester? How can I help you get there? What goals do you have for yourself?'"

Lincoln explained that SBAE preservice teachers can specialize in an agriculture-specific content area within the state he resides. When students express interest in particular areas, he used that as motivation to connect with course topics. For Lincoln, students who seek out a specialization are expressing a unique interest that he needs to connect to real-world opportunities. He states, "In [State], you have the chance to specialize more than in other states. So, if a student's heart's desire is vet tech, you may end up teaching all vet tech classes. That motivates some students." For Lincoln, his students were motivated to take their interests and have the opportunity to be content specialists. Students have the autonomy to pursue their interests and find opportunities that align with them. Jackson reflected on the challenges of understanding each student's unique interests:

> Ensuring that everyone understands their voice holds significance, regardless of their contribution—every input counts. It's something I need to do consciously. As someone who isn't naturally emotionally expressive, my teaching persona primarily emphasizes praising and endeavoring to engage students in that manner. I suppose that's my approach.

I appreciated Jackson admitting that it is not always an easy task to learn students' interests and connect them back to course content to make it motivating. Jackson's

comment underscores the importance of creating space for students to share their own interests. Each participant shared a unique tactic for drawing out students' interests.

Further, participants connected the practice of building relationships with connecting student interests to real-world applications. "I get to see students' interests inside and outside of the classroom," Sedona explained. Sedona shared that several of her students are Teach Ag Ambassadors who sent out a survey to students enrolled in the SBAE teacher preparation program, aiming to create a professional speaker series based on students' interests:

> They sent out a survey asking students about Career Development Events in which they didn't feel competent, and now we're implementing a professional speaker series. For example, Ag mechanics was identified as the area needing the most growth, so we're planning an Ag mechanics night entirely organized by students.

Sedona's statement exemplifies the opportunities students have within her program to express their interests and take action to support initiatives like the professional speaker series. Participants relied heavily on the practice of building relationships to connect student interests to real-world applications.

Participants sought to connect real-world experiences to students' interests by sharing personal stories, experiential learning activities, and guest speakers addressing the realities of teaching SBAE. They emphasized that their role is to provide opportunities for students to engage, but it is up to the students to seize those

opportunities, connecting back to the central belief of providing space for students to act on their agency.

Aspen shared a story about a student teacher who was not the most 'outwardly motivated.' She expressed that she didn't know if the student had the innate desire to teach. She expressed feeling like this student was not motivated to teach SBAE and did not know if this student would follow through with the degree program. Aspen further discussed a summer experience where students participated in a summer academy. High school students interested in becoming SBAE teachers participated in camp-like activities led by Aspen's students. Aspen described the unmotivated students during the summer academy:

> It was like she came alive [during the experience] and I think sometimes if we don't give them, at the teacher preparation level, plenty of opportunities to engage with real high school students and real teachers and kind of expand beyond our [course] walls, it can be demotivating to students because they forget why they're there.

Participants explained that students have an inherent inclination to engage in SBAE classrooms, working with middle and high school students to satisfy their motivational needs. In addition to incorporating real-world experience opportunities, participants aimed to develop assignments focused on real-life application, as Jordon explained, 'I try to foster motivation by creating assignments and assessments that are applicable to real-life situations.' When I asked Jordon for an example, they described the microteaching experience students undergo during their methods course. After reviewing course syllabi

provided by participants, I found that this approach was a common practice among all participants. Microteaching experiences offer students the chance to apply their content knowledge and pedagogical skills, receiving feedback before they embark on the student teaching experience.

Students' innate desire to teach, in combination with understanding their personal interests, supports participants using real-world experiences to support student motivation and student agency. Participants emphasized personalizing students' experience within the SBAE teacher preparation program. Jackson highlights the importance of tailoring coursework to meet the unique needs of aspiring SBAE teachers:

Being able to figure out what their personal experience looks like and adapt their coursework to what they need to be the best possible educator on the back end is one of the things that I really value pretty highly.

The participants' experiences supported the idea of connecting students' interests to their beliefs about student agency. Participants' understanding of student agency was reinforced by the idea of motivating students through their own interests.

Build Relationships with Students

Participants consciously made instructional decisions based on the relationships they established with students. This can be seen in the way teachers interacted with students during the classroom observation, in journal reflections, and in the post observation interview responses. Participants identified two beliefs regarding student agency that influence the practice of building relationships with students: students have an innate desire to teach and students are unique with their own interests. For

87

participants, in order to motivate students, it became imperative they knew what students were intrinsically and extrinsically motivated by. Participants built relationships with students in a variety of ways. Some participants highlighted one-on-one meetings outside of instruction time, where others built it into their daily instruction to provide time to build relationships with students. One way participants built relationships was by welcoming students into the classroom before the start time. Orlando was intentional about the time he utilized at the beginning of his daily instruction. He asked students about life outside of the classroom, such as their participation in student organizations or hobbies. During the classroom observation, I watched Orlando connect with several students on a shared interest of horses. Participants relied on their belief that each student is unique to build rapport with the students and encourage student agency.

Further, building relationships with students provides participants with the opportunity to create a safe environment that supports students' unique interests that can guide their agency. Sedona emphasized the importance of knowing her students to motivate them in various ways:

> I get to know them one-on-one. I learn what motivates and engages them. So, for example, if I have a student and I tell them, 'You need to do this, this, and this to be successful,' it won't work for everyone. However, for others, it might just motivate them. You have to understand how they work, how they think, so you can have meaningful conversations with them to help them succeed.

Sedona emphasized the relationships she built with students as her beliefs of supporting student agency rested in supporting students' individual motivational interests.

During the first interview, I asked the question, 'How do you know when students are motivated?' After receiving a variety of answers, participants consistently circled back to the importance of knowing their students, understanding their typical behaviors, and recognizing when they might be having an 'off' day. Jordon acknowledged the challenges of being in their early years as an instructor but emphasized:

I really try to highlight the importance of belongingness and building rapport with students before implementing other strategies. I know that belongingness is a place where I rock as a teacher, and I can develop that pretty easily within a classroom.

Participants acknowledge various ways of building relationships with students. For example, Sedona asks students to schedule check-in meetings periodically throughout the semester. These check-in meetings serve as a time for advising and mentorship and for Sedona to get to know her students. Knowing student's backgrounds, interests, and values plays a key role in placing students in their student teaching experience. Austin shared his joy in watching students discover their placements and begin identifying as teachers:

That's when I start to really cherish the relationships that I have made with students. I enjoy watching them get excited about something that made them nervous and being successful at it. I tell them 'Remember that conversation we had and you were scared. I knew you could it'.

Austin further explained that when you know students during their freshman year and watch them grow into seniors who are excited to enter the teaching profession, it comes down to the relationships he built with students early on. During my conversation with

89

Aspen, she confirmed Austin's thoughts, "I think so much of it goes back to relationships. We're really lucky to have smaller class sizes [in SBAE]." Aspen appreciated the smaller class sizes, which allowed her to build stronger relationships with her students. She further adds, "I believe that makes it easier as they progress into those upper-level courses, those pedagogy courses where I know pretty much everything there is to know about a student. It helps me understand when they aren't motivated."

Beyond building relationships to support students' interests, getting to know students provides opportunities to identify when they are unmotivated. Orlando explained that knowing the students helped him intervene when their motivation was low and encouraged them to engage. He stated, "It helps when you know them before they are unmotivated. If I don't know them beforehand, I don't really know how to get them to engage on their own."

When I asked Aspen to tell me why we should care about building a relationship with students, she responded:

> I think we're too small of a profession, too unique in our three-component model, it's not an English degree you know, we're not just taking classes, and I build relationships with students because I have high standards for students. I want them to be the best that they can be and I feel like those experiences and relationships are just so impactful.

Aspen was observant of her beliefs and how she put them into practice. Aspen referenced her beliefs that students are unique with their own individual interests as a driver for building relationships with students. She elaborated that small class sizes "facilitates

easier participation in discussions and enhances the overall quality of the class and allows for individuals to contribute." Aspen's approach prioritizes building relationships, further emphasizing the belief that each student is unique with their own individual interests.

As I observed Orlando's classroom, I noted his emphasis on allowing students time to talk and ask questions. He moved around the room, asking students specific questions unrelated to the daily instruction topic. He addressed students by name, learning about their involvement in clubs and activities over the long weekend. I could tell that the engagement was intentional and related to his beliefs of student motivation. Orlando placed importance on getting to know students so he could connect their interests to students' innate desire to teach. Orlando stated, "If I know a student has a passion for bugs and insects, I might suggest they do their microteaching on a topic with entomology."

Jordon highlighted the importance of getting to know students outside of their academic interests. For Jordon, students are more motivated to engage when they can connect their personal interests to peers and the instructor. Jordon shared a story about a student and their interest in anime, "I noticed she was wearing a backpack with anime designs, so I made a comment about it since it featured a show I'd watched before. My comment sparked a conversation about an anime convention on campus." Jordon further added that the student was the convention's director. Every so often, Jordon would ask the student how planning of the convention was going and what events would be held. Jordon further explained, "I enjoy engaging in such conversations because they allow me

to learn about her interests. Later in the semester, she invited me to the convention, and I attended. Supporting students outside of the classroom is important."

Building relationships not only supports rapport between teachers and students but also establishes expectations for students on how to build rapport with SBAE high school students during their student teaching placements. Dallas emphasized this thought:

It doesn't matter what the size of the class is, quite frankly. One of the things I do is I get to know who they are. And I tell them that is so important to do in your K-12 classroom as well. You've got to make that connection. And so, I do that very early on.

Building relationships with students extends beyond merely getting to know them. There is a significant emphasis on understanding each student's individual interests and backgrounds to support their needs within the teacher preparation program effectively and to enhance their motivation and agency during their time within the SBAE teacher preparation program.

Foster Cohort/Peer Support Formation

Participants highlighted that the development of preservice teacher cohorts supports students' motivation and agency within the SBAE teacher preparation program. Participants' support for forming a structured group is tied to their motivational beliefs regarding students' self-efficacy and recognition of growth, leading to individual and collective agency. Participants recognized that a supportive cohort environment can enhance student agency and felt ownership in attempting to establish a cohort among students in similar classes and years within the SBAE teacher preparation program. Peer

support can boost a student's confidence and help them develop as a teacher. Aspen shared her experience of supporting student agency through cohort formation, "I think it's really important that we set the standard within cohorts, 'you're there to build each other up and help each other." Aspen relied on students supporting each other to make decisions that are driven by students' motivation and agency. Further, Aspen adds, "It also needs to be *them* leaning on each other and helping each other through some tougher times because sometimes college is just hard and it's not even our classes." Students' motivation and agency can be thwarted based on factors outside the participant's control, like classes, family life, jobs, etc. Aspen emphasized the importance of students positively encouraging one another to overcome challenges. She further shared, "I know students don't always want to come to me, but I know they will go to their peers for support." The development of cohorts within Aspen's program had a direct influence on how peers support each other through the emotional process of being college students and the stress of the teacher preparation program that students identify with. Aspen relied on cohort formation to support her belief that students need to express self-efficacy to act on their own agency.

Participants further emphasized the important role that peers play in supporting agency within SBAE teacher preparation programs. Dallas shared, "students can motivate their peers just through praise, positive reinforcement, asking questions, that's a really cool thing." Dallas believed that students must have an innate desire to teach. He supported this belief by promoting student inquiry and reinforcing values through the practice of peer support formation. Further, early establishment of cohorts and peer

93

support is crucial in SBAE teacher preparation. Lincoln emphasized the emotional support peers provided to each other throughout the student teaching experience. He explained that the cohort had already been established prior to the student teaching semester. When student teachers reconvene for seminars, he allows them the space to connect and talk through challenges they are experiencing. He shares, "I tell students I am going to start the meeting this 9 AM. And then I just doesn't show up for the first hour because students need that hour to vent, to cry, and reconnect with each other after being at their placement sites." Lincoln shares his students have told him they appreciate the time to reconnect and recognize they are not the only ones who are experiencing low efficacy in teaching. He further shared, "I have a cup somewhere that my student teachers from three or four years ago got me a cup that said 'The Tears of My Ag Ed Students' as a running joke because of that hour I give them." Lincoln also relies on his belief of students' self-efficacy to support the practice of peer support. It is crucial to allow students space to explore and build relationships as they navigate developing their teaching identity. This supports the belief that students should have an innate desire to teach SBAE.

Jackson expressed the struggle of establishing cohorts at his institution. Half of his students enroll in community college for the first two years and transfer to Jackson's institution their junior year to the teacher preparation program. He explained that the transfer students struggle with integrating into the cohort of students who started at the institution their freshman year:

94

We don't have official cohorts. There's no set track, but one thing that we do have

is, we have kind of two different groups of students where we have students that

come in as freshmen. They have two natural cohorts that form.

Jackson expressed he wished that transfer students integrated into the whole group more

cohesively. However, he mentioned that each group supports each other in the ways they

need based on their own previous experiences.

Participants agreed that cohort formation supports students' motivation and

agency within the SBAE teacher preparation program. Some participants have clearly

defined cohorts, while others struggle to organize the group of students to think like a

cohesive group. Regardless, peers contribute to support individual and collective agency

in the SBAE teacher prep program.

Positive and Encouraging Feedback

The final sub-theme to emerge within agency supporting practices was the

practice of positive and encouraging feedback. The practice of positive and encouraging

feedback was supported by the beliefs that students should have an innate desire to teach,

students' self-efficacy contributes to their agency, and students' recognition of their own

growth. Participants identified feedback through written assignments and verbal

instruction during student teaching visits. The participants highlighted the importance of

verbal feedback and identified it as the most effective way to promote student agency.

Participants agreed that feedback should be open and delivered in a positive,

encouraging manner. During my classroom observation, I observed an interaction

between Jackson and a student. As Jackson posed a question to his students about

agricultural literacy. A student spoke up and asked why the term was not 'agricultural fluency.' Jackson paused and challenged the student to think about the root meaning of the word. As the discourse between Jackson and the student unfolded, the student had an "aha" moment, realizing the more appropriate term was literacy. I asked Jackson to tell me about this interaction during the post observation interview.

> In the video clip that you showed earlier, I tried to kind of hype [student] up because he gave a really good response. It would have been really easy for me to go, great job, [student], moving on, but I wanted to kind of focus on how proud I was that he was able to explain that and provide that and things like that.
>
> [Student] one of my volunteers.

Jackson's practice of providing positive and encouraging feedback aligned with his beliefs of students self-efficacy contributes to agency.

As participants discussed student agency, they noted that students may use their agency to explore questions that are not directly related to the topic of instruction. Austin shared an example of a time when a student asked a question that was not entirely related to the topic. He felt it was important to address, so I asked why he let the conversation continue if it wasn't related to the topic. Austin explained, "I tell them they've got to be choosing their favorite F word, and that is flexible." Austin emphasized the importance of acknowledging and modeling flexibility when conversations go off-topic or take unexpected directions. By providing explicit feedback on flexibility, he allows students to express agency within their interests. Austin connected this practice of providing positive and encouraging feedback to his beliefs that students need to recognize their own growth.

96

He believed that students needed a safe space where they could ask questions, and he could provide responses that would help them understand the realities of SBAE programs. To achieve this, he had to be flexible and respond with positive, encouraging language.

Further, participants agreed that positive and encouraging feedback guides students to further engage in their own agency. Students' innate desire to teach supported the practice of providing positive and encouraging feedback. Jordon explained they felt like it was their role to support students' motivation by encouraging them to continue to act on their agency within the SBAE teacher preparation program. Orlando also emphasized the importance of utilizing positive and encouraging language and urged students to think critically about their future roles and engagement within SBAE. Orlando's way of providing feedback was to respond to a student's question with a question in return. He explained this was a way for students to identify gaps and connections to topics rather than responding to a student's question. This positive interaction between Orlando and the student allowed for a more in-depth conversation, which further engaged the students during instruction and empowered them to act on their agency.

Summary: Agency Supporting Practices and the Connection to the Substantive Theory

Participants' beliefs of student agency guided how they supported students' motivation and agency through the seven practices that emerged: (1) providing space for students to act on agency, (2) building relationships, (3) clearly communicate course structure, (4) transparency, (5) connect students interests to real-world application, (6)

97

foster cohort/peer support formation, and (7) positive encouraging feedback. Participants emphasized that motivating students, especially adult learners, did not rest solely on their shoulders. Providing space was key for students to explore their agency and was supported by all four beliefs of student agency identified by participants. Participants were clear that their purpose was to create opportunities for students to express and act upon their motivation through the SBAE teacher preparation program. Further, the practices themselves interacted with one another supporting student agency. Participants did not rely on one practice at a time to support student agency and motivation.

Within the substantive theory, agency supporting practices can be observed at the bottom of the model directly connected to motivational beliefs. However, the two themes are also indirectly connected through the next two emergent themes of prioritization and justification of beliefs and contextual influences of SBAE teacher preparation programs. The following themes describe the contributing influences on how SBAE teacher educator conceptualize their beliefs of student motivation and student agency.

Contextual Influence of SBAE Program Structure

The structure of the SBAE, within the teacher preparation program and secondary programs, significantly influenced participants' beliefs of student agency. Context plays a crucial role in data analysis in grounded theory methodology. In this particular study, I found that contextual factors influenced student agency within SBAE teacher preparation programs. It's important to note that every SBAE teacher preparation program is unique, facing its own set of challenges regarding contextual influencers. The theme of contextual influencers of SBAE teacher preparation programs aims to pinpoint the

emergence of influencers within the unique parameters of each program, highlighting the diverse ways in which program structure influences motivational beliefs. I would like to emphasize that the program structure of SBAE did not exclusively hinder students' motivation but supported the reasoning of how participants perceived and addressed students' agency. Within the theme of contextual influencers of SBAE, three sub-themes emerged: licensure requirements, university constraints, and the complex, bound idea of SBAE. Within this study, contextual influences served as boundaries and barriers that participants had to consider while aligning their beliefs of student agency with their agency supporting practices.

Licensure Requirements

Licensure requirements emerged as a contextual influencer of how participants aligned and enacted their beliefs of student agency. Teaching licensure requirements varied from state to state. Therefore, participants had varying degrees of how the licensure process influenced their motivational beliefs. Some participants identified the licensure process as the most restrictive factor of student agency. Dallas identified the financial constraints that students experienced due to licensure requirements:

> There is value to [State required assessment], but requiring students to bear the financial burden, I don't agree with. It's hundreds of dollars for students to participate in [State required test], and they also have to create an account on [licensure online platform] to submit the licensure requirements. Additionally, we mandate that they get an account with [licensure online platform], the web platform utilized by [University]. So, that's an added expense.

Dallas explains that the cost of the test and platform can be a financial hardship for students. The burden of registration fees, background checks, and exams limits student autonomy within the licensure process. Additionally, licensure requirements live within a system where part of the evaluation criteria is based on earning a certain grade. Orlando explained, "We are working in a system in which they are expected to have some kind of grade, especially when we need to motivate students to complete licensure requirements." Licensure requirements were managed by a department coordinator or College of Education coordinator. Orlando further added, "grades are usually attached to a fluency or competency related to licensure requirements in which they'll get a certificate license. We have to play by their [state department] rules."

Austin's shared a different experience with his state and institution in terms of licensure requirements. He explained how students in his state are able to choose which path they fulfill for part of the licensure requirements:

> I guess it's a choice as to which of the three requirements they can meet for their pre-service license. Students can either exhibit a minimum GPA, ACT, or SAT score or take certain core classes and pass a core subject class.

Austin's experience is unique compared to other participants. Other participants listed minimum GPA and course requirements for students to be recommended for licensure. Students found motivation in the choice of fulfilling the licensure requirement while navigating the licensure process.

The placement of student teachers was an opportunity for students to engage in the process and provide valued input on living location, strengths and weaknesses within

content areas, and the need for a comprehensive program experience. Aspen identified the placement process at her university as a place where her students had the most choice within the licensure process:

> I would say the interview process and placement is probably the most choice a student has across all our degree programs is in the student teaching placement. In that particular process, we provide them with a list of all the qualified options, and they go through a vetting process with faculty. We ensure that they have a comprehensive program and that the teacher is willing and able to host a student teacher.

At Aspen's institution, students were actively part of the placement process. However, at other institutions, students may not experience as much agency within the placement process. Jordon further explains that students do not always know what they need when seeking out a placement experience. Students are motivated by their previous experience or by the content they will potentially get the opportunity to teach. Jordon added, "There is an opportunity for input, when it comes down to student teaching placement interviews, but I don't think that they should just get to choose and pick where they go."

Austin takes a different approach to placing student teachers. He allows students to pick three schools, based on location, mentorship, and program type. He meets individually with each student to discuss their choices:

> Students will come and identify up to three potential schools that they would like to go to student teaching and we factor in where they're from, their living situations and all that and then I sit down and talk to them about their strengths,

their limitations and try to match them with a school district that, one, they're going to be able to see a complete program that utilizes the three circle model equally, but it also has a mentor teacher that is going to help that student teacher develop their limitations, give them some expertise in a particular area and then I make the initial contacts with the school district or the local school board office to make the final placements and approvals.

Austin highlighted the intricate process of placing student teachers. There are many stakeholders who can become roadblocks in getting students placed for student teaching. As part of the student teaching process, it became evident that placing student teachers in sites that support their content knowledge, pedagogy, and motivational needs is crucial, especially considering that a student's teaching license is the cumulative certificate of the teacher preparation program.

University Constraints

University constraints emerged as a contextual influence of SBAE programs. Teacher preparation programs operate within the boundaries of licensure requirements set by the state issuing a teaching license, as well as within the constraints of a university system. Participants explained that credit hour restrictions, course offerings for degree requirements, and relationships with the College of Education and College of Agriculture influence beliefs of motivation and agency.

As we discussed the program at the institution where Dallas works, he noted the lack of flexibility within the curriculum for students, stating, "I guess I'll call the curriculum intense, if you will, because of state standards [for graduation requirements].

102

So, there's not a lot of flexibility in the curriculum." Dallas further explained that students had a limited number of core content classes to fulfill the degree requirements. Similar to other institutions, Dallas added that students have more choice among their elective classes, such as options to fulfill their animal science elective credit.

Lincoln also worked at a smaller campus with limited course offerings for students. He compared course offering to a larger institution where students can fulfill a plant science credit with "introduction to plant science, intro to horticulture, or greenhouse management." His students do not have the options but rather can fulfill the requirement with the only plant science course available for non-plant science majors. Lincoln grew in excitement as he talked about a new faculty hire that would allow more animal science courses to fulfill the elective for students enrolled in the SBAE teacher preparation program, "Coming next year, they will get to choose between two animal science classes!" For Lincoln, providing more options for students to fulfill content area courses supported students' motivation.

While all participants mentioned their relationship with the College of Education within their institutions to some extent, Jackson and Sedona specifically acknowledged that the university structure allowed for a closer relationship, facilitating collaborative decision-making. Jackson discussed curriculum decisions and the process of working with the College of Education:

> Our teacher preparation program is a cooperative program [with the College of
> Education]. There are a few faculty members, myself and a handful of others, in
> our department at the College of Agriculture. The other side of our program is in

the College of Education. And even though we don't have any dedicated ag

education faculty in the College of Education, a lot of that decision-making is part

of that cooperative agreement.

For Sedona, having a close relationship with the College of Education made decision-

making a smoother process to prevent students from becoming unmotivated due to

constraints from the institution. Jackson further explains that some decisions have to go

through the cooperative program, especially if that decision affects other teacher

preparation programs within the cooperative agreement. For participants who worked

closely with the College of Education, the university constraints were not as described as

"tight" because they were able to have a greater influence of programmatic decisions.

Because of this close relationship, participants were able to align their beliefs with

practices without the pressure and constraints from the university.

Sedona was the only participant whose appointment was located in the College of

Education, yet her primary role was to work with SBAE preservice teachers. During

Sedona's first year at her institution, she shared a story of the state requirements being

implemented with a residency model compared to a more traditional model of a 16-week

student teaching experience during a single semester. Sedona shared:

The state said you need to have two semesters of student teaching, figure it out.

Every other school said fine, they can do two traditional semesters of student

teaching. And we said nope, we're going to do a residency model. Which is where

they'd spend some days of the week in the classroom in the fall. And so, I came

in. I had a really hard time wrapping my head around that. I didn't understand

104

what was going on, and [other TE] sat me down and talked about how good

teacher prep programs are not teacher prep programs. Because when you prepare

something like you prepare a recipe, you follow the steps, and then you're done.

He said our goal is to create a teacher development program.

Sedona highlighted the dialogue between herself and a colleague as they navigated their

beliefs, considered how university constraints impact them, and responded to meet the

needs of students.

Furthermore, Lincoln and Jackson highlighted that students have a maximum

hour limit of 120 credit hours. This leaves less room for students to fill hours with

electives that fulfill their interests or technical agricultural content knowledge. "Our

degree program is 120 credit hours. They have exactly three credit hours of free electives.

So they are free to choose one class," explained Lincoln. He adds:

I really do believe they should be able have more opportunity to fulfill degree

requirements. I really wish that I were in a position where we could allow for that

to happen. I also wish we had the resources to make that happen.

Resources for the university are limited, and this belief was reflected among participants

who wanted to offer students the opportunity to pursue their interests through electives.

However, students are bound to specific degree requirements due to limited course

offerings. The university constraint is a unique contextual influence for SBAE teacher

preparation programs because of the breadth and depth of knowledge SBAE teachers

need to be successful when they enter the profession.

The Complex, Bound Idea of School-Based Agricultural Education

SBAE has been described as a unique context among participants, especially when compared to other subject areas and teacher preparation programs housed within the College of Education. Without delving into a history lesson, middle and high school SBAE programs are rooted in a three-circle model encompassing classroom instruction, FFA (Career and Technical Student Organization), and Supervised Agricultural Experiences (SAE; workforce development experiences). This three-circle model is represented within the SBAE teacher preparation curriculum, courses, and philosophy of placing student teachers in a well-rounded student teaching experience.

Jackson recognized SBAE as a complex and bound idea. He shared stories about students who lack previous experience as a SBAE high school student and how he seeks out opportunities for those students to engage in the "uniqueness of agricultural education." Jackson further shared:

> The most important thing is, I like to send them to places where, if I have a student who has no background in school-based ag education, it's something where they found out about it as a college student, I have a handful of teachers who are nearby that are very, very good at what they do, who started exactly the same way, and their programs are different, they're diverse, they go about doing things a very different way than a lot of what we would think of as a traditional sense.

To further support this idea, Dallas encourages his students whom he describes as "non-traditional ag students," by allowing them to explore what an SBAE program looks like

with a teacher who has a similar background. This demonstrates participants' efforts to challenge the bound idea that agricultural education is rooted in. Additionally, Lincoln viewed the uniqueness of SBAE as he thought about preparing students with the skills needed to enter the agricultural classroom. Lincoln explained, "In [State], teachers are expected to know how to drive a truck and pull a livestock trailer. What other subject area needs to know how to do that?" Lincoln emphasized the uniqueness of SBAE of the out of classroom experiences. He adds, "Most of my students don't know how to drive [with] a trailer. I teach them during a summer course."

This topic was particularly pressing for Orlando. Orlando shared that context matters as he compared students' engagement between two universities where he had previously worked. He mentioned that he struggled to have students think critically about SBAE. He stated:

> I want them to own the complex idea of SBAE themselves. Students rely on their previous experiences, but how can it resemble what they went through in their SBAE program? I want students to recognize that it could be radically different based on the context.

Orlando and I discussed the concept of SBAE, drawing from examples of FFA symbolism. His response followed:

> Agriculture is such an ideologically laden thing. I got that jacket up there [points to FFA jacket hanging in office]. That's performance. I'm performing. That should be in my closet. But because I talk about [research interests], because I talk about

107

[research interests], and it's out there, and people know that, I need to have that in

my office. So my students don't think that I'm some hippie nut job.

Jackson shared a story about students who pushed the boundaries of course topics and

thus the traditions within SBAE programs. His example began with a class discussion on

recruitment and retention at the local FFA chapter level. He mentioned that at the time of

this story, the National FFA Organization was "getting some heat" for

underrepresentation. During the instruction, a student asked a question that sparked

controversy about diverse recruitment. Jackson discussed his views on addressing the

barriers and allowing students to formulate their own beliefs through open-ended

questioning and guidance within the discussion group. Jackson stated:

> In my opinion, there are things that need to change about the way we do things [in
>
> SBAE], but that's not going to happen unless we get exposure among individuals
>
> with different opinions because it's a matter of moving the needle, and it's a very
>
> nuanced process, and so a lot of the time it takes a student, like in this situation,
>
> saying something that was a little bit out of pocket, a little bit too far, and another
>
> student who's part of the discourse with a completely different life experience,
>
> knowing that I'm going to be there to mediate that where they can also bring up
>
> like, hey, I know that's how you feel, but have you thought about it from the
>
> perspective of a student of color, from a student who is gay, or from things like
>
> that?

Jackson emphasizes the importance of SBAE teacher preparation programs recognizing the bound idea that SBAE influences programmatic decisions regarding curriculum, experiences, and opportunities presented to students.

Summary: Contextual Influence of SBAE Program Structure and the Connection to the Substantive Theory

The three emerging sub-themes of licensure requirements, university constraints, and the complex, bound idea of SBAE highlight the context that guided this study as well as the influence they play in conceptualizing student agency. The contextual influence of state licensure requirements emerged as a significant factor for SBAE programs, varying across states and affecting participants' motivational beliefs differently. Participants highlighted financial constraints and the influence of grading criteria connected to licensure, impacting students' perceptions and motivations. The placement of student teachers was identified as a crucial process, offering students some choice while ensuring alignment with program goals. University constraints, including credit hour limits and course offerings, also influenced motivational beliefs, as participants expressed desires for more flexibility within the curriculum. Overall, participants sought to challenge the bound idea of SBAE, emphasizing the unique three-circle model and promoting diverse perspectives and experiences within agricultural education.

Within the substantive theory, contextual influences play a pivotal role in how participants conceptualize the alignment of their beliefs of student agency and agency supporting practices. These influences sit below the beliefs of student agency and above prioritization and justification of beliefs. Participants first recognized the contextual

influences as they conceptualized their alignment of beliefs and practices to then reflect on and prioritize their beliefs.

Prioritization and Justification of Beliefs

The theme of prioritization and justification of beliefs explores the self-reflective process and awareness of conceptualizing student agency captured through participants' responses as they connected their beliefs to practices. Three sub-themes emerged within the theme of prioritization and justification of beliefs. The first sub-theme, the prioritization of beliefs, explores participants placing a heavier emphasis on student learning outcomes, technical skill development, and their own philosophy of teaching and learning over supporting student agency and motivation within the SBAE teacher preparation program. The second sub-theme to emerge was the ownership of beliefs. Participants discussed the challenge of aligning beliefs with practices and how it can demotivate students. For participants, to allow students to explore their agency, they must first take ownership of their beliefs and align them with a practice. This emerged as participants felt as though they needed to justify their actions of supporting or hindering student agency. The third and final sub-theme was the fear of losing control. Within this sub-theme participants emphasized that supporting student agency means letting go of their perceived control of the SBAE teacher preparation program. Participants justified that the fear of losing control took precedence over supporting student agency. The theme of prioritization and justification of beliefs focused on participants' internal reflection surfaced to understand the connection between beliefs of students' agency and practices

on a highly personal level. Aspen explained, "This was the first time I thought about *how* I motivated students. I know I attempt to motivate them, but this was the first time I really thought about how my actions impact student motivation."

Participants shared examples of students who expressed low motivation and the actions they took to address students' motivation within the SBAE teacher preparation program. Austin explained, "All students are going to face some challenges [low motivation]. And if we see that, you know, something has changed for that student." For participants, it was easier to conceptualize and address low motivated students. Austin further adds, "You know, they were motivated [at one point], they were excited, but then they kind of hit the skids a little bit. Instead of them going down that road further, how can we say, 'All right, what's going on here?'" Austin reflected on the importance of getting to know students to support them through their low motivation points. Further, Austin states, "students go through low points, and I tell them, don't make a career decision when you at your lowest point of student teaching." Austin ties in his belief that students need an innate desire to teach for them to pick themselves up during points of low motivation. If students do not have the innate desire to teach, they often will not see the value in the experiences built into the degree program and struggle to make connections to their long-term goals of teaching SBAE.

Sedona reflects on her approaches with students who have low motivation from a different perspective. She draws from her own experience as a student, crediting her instructors for not giving up on her during moments of low motivation:

I mean, I was a student once, so I know how that goes when I was not motivated.

And so, I think that's reflective of myself, and I think a lot of it, yeah, my

experience shaped that, but I think a lot of what shapes me now is those

conversations I have with students.

Sedona prioritizes her experiences as they relate to her beliefs of student agency and

motivation. For Sedona, she relied on her belief that students need to recognize their own

growth, she states, "I needed someone to believe in me, and I try to do the same for my

students."

When I began to talk with Jackson about how he reflects on student motivation

and agency he responded:

[Providing space for agency] is one of those things, where when you describe it,

everyone's like, yes, that's a great idea. I want to do that. And then you do it and

[students] hate it and they can't understand, they can't verbalize why they hate it

so much. And I think it's because of that unknown component of students having

input on course instruction and outcomes.

Jackson reflects on the challenges of implementing student agency in education, noting

the challenge between the theoretical approach and practical application he faces when

attempting to align his beliefs with practices. Jackson recognized the importance of

allowing space for agency. However, some students seek definitive answers. Those who

struggle to express their agency may express their frustrations by seeking a correct

answer or the right way of completing a task. Jackson further understood that student

agency does not always lead to a correct answer. Jackson's statement echoes the

112

importance of students recognizing their own efficacy. Student agency, as a concept, was challenging for participants to conceptualize partly because students struggled to take ownership in their own learning and experiences within the SBAE teacher preparation program.

"Motivation is incredibly complex, and there is no easy answer," Sedona shared when I asked her how she integrates her beliefs of student agency into the SBAE teacher preparation program. It became clear that participants had an intuitive desire to agree that integrating student agency was vital to their belief in student motivation. I asked Orlando to tell me about his expertise in the field of education. "I swear to God, the 'E' word is the worst word in the world, and I have to embrace it, and I hate it." Orlando struggles with accepting that he is the "Expert" as the instructor of the course. Related back to Orlando's purpose as an SBAE teacher educator preparing students for careers in agricultural education, accepting the role of an expert while also allowing students to express agency posed a significant challenge.

Aspen struggled with the concept of agency in terms of allowing students to have full control of the SBAE teacher preparation program, noting that students "don't know what they don't know." During our discussion on how students can express their agency within the SBAE teacher preparation program, she reflected:

> I think [student agency] illustrates that if we're not careful and we let them choose everything, we would just have many replicas of exactly what their program looked like not necessarily what the best program that could be or the program for their unique areas.

113

Aspen connected the idea of agency to students acting on their motivation to engage in an agentic way, highlighting that unique programs contribute to shaping the context of SBAE education as it is today. However, she feared that students' prior experiences might limit their ability to seek out diverse experiences, thus hindering their motivation. I asked her to expand on this thought, connecting it back to her beliefs and how she enacts them:

> I think it goes through a filtering process. And I wonder if [SBAE teacher educators] don't have, like, a hierarchy of different beliefs and maybe there's another belief that's stronger, that's changing the outcome of that belief when we see it in action.

Aspen concluded her interview by sharing that she felt she was engaging in her own personal reflection about motivation, "You know, as we're going through the interview, in another layer of my brain, I'm thinking, 'Oh, well, I never really thought about how important motivation was or why I did that.'"

Prioritization of Beliefs

For some participants, this study was the first time they reflected and thought about student agency. Others have thought about student motivation, but not how it contributes to student agency. As participants conceptualized student agency, beliefs of teaching and learning emerged and were given priority over participants' beliefs of student agency. Further, conceptualizing student agency and agency supporting practices emerged as an extremely interpersonal reflective process as the concept of student agency was novel for participants. Participants reflected on their motivational beliefs and how

their beliefs related to student-directed engagement, which was evident in their journal responses and interview question responses.

Foundational Belief of Teaching and Learning Rooted in Literature

At the foundation of the participants' beliefs about motivation and agency lie their beliefs about teaching and learning. Unsurprisingly, this category emerged from theories of teaching and learning cited by participants during interviews. As a contextual note, it's important to acknowledge that the participants are regarded as experts in the field of education and rely on the scholarship of teaching and learning to drive curriculum and instructional decisions. Participants possess extensive knowledge that encompasses a breadth and depth of teaching and learning theories, as well as profound experiences as previous SBAE teachers and university faculty who prepare students to enter the field of education. During my exploration of their motivational beliefs, many participants made references to theories pertaining to teaching and learning, while also drawing connections to student motivation. I purposefully did not ask participants to identify an educational motivation theories to gain insight into the breadth and depth of their own personal beliefs connecting to motivation and agency.

Participants stated how students have needs, as humans first, and those needs must be met before students are able to learn. Dallas cited, "Maslow's hierarchy of needs (1987) has been around for decades, there's still a lot of application to Maslow's Hierarchy of Needs (1987)." This is further supported by my classroom observation of Austin. Austin taught on the topic of "Motivating [High School] Students" and the central focus of the lesson revolved around students recognizing the various levels of student's

115

needs within Maslow's (1987) model. Austin was teaching this lesson to preservice teachers and intended for the lesson to model why teachers need to be observant of high school students beyond their academic needs. In the post observation interview, I followed up with Austin and asked him to tell me why he chose to teach a lesson on how to motivate students. Austin responded, "[Maslow's] research has shown us what leads to success or demonstrates motivation in the classroom. And this is what you're supposed to do as a teacher." Participants who referenced Maslow's hierarchy of needs prioritized fulfilling students' physical needs before addressing their psychological needs related to student agency.

Jordon and Orlando emphasized the physical and emotional aspects of Maslow's hierarchy of needs. Orlando mentioned that he began providing snacks at the beginning of class to ensure students' food needs were satisfied. Furthermore, Jordon emphasized the importance of checking in on students who seemed disengaged or unmotivated during instruction. They noted, "Sometimes they have something else going on, like they stayed up all night finishing a paper." When I asked Jordon to share why they identified Maslow's Hierarchy of Needs (1987) he responded, "I know how Maslow's Hierarchy of Needs (1987)] is useful, I know why it is useful. Students can't think if they don't have sleep or food."

Aspen approached her prioritization in a more holistic manner. Aspen cited Bloom's (Krathwohl, 2002) taxonomy, Darling-Hammond and Bransford (2007) preparing teachers for a changing world framework, and the characteristics of effective teaching (Rosenshine & Furst, 1971). She noted that all the references tie back to good

116

principles of teaching: clarity, guidance, and scaffolding. I asked Aspen where her beliefs of teaching and learning came from and how she associates those beliefs with student motivation:

> You know, you look at students as students, but you also see them as people. When they're demotivated, sometimes their identity as individuals has to take precedence over their role as students. Once we address that aspect, then we can focus on the logistical issues.

Aspen connected student motivation to aspects of "good teaching" based on the work of Bloom (Krathwohl, 2002), Darling-Hammond and Bransford (2007), Rosenshine and Furst (1971). Aspen's beliefs of teaching and learning rooted in literature emerged in connection with agency supporting practice. However, Aspen did not identify her beliefs of teaching and learning in connection with supporting student agency, rather, she prioritized her beliefs in teaching and learning over her beliefs of student agency. Additionally, Austin stated, "I root myself in the principles of teaching and learning and effective teaching characteristics (Rosenshine & Furst, 1971)." Austin emphasized clarity and enthusiasm motivates students within his SBEA teacher preparation program. It became evident that participants frequently cited common literature to support their teaching scholarship and their conceptualization of student motivation and student agency.

The last theory identified by participants was Self-Determination Theory (Ryan & Vansteenkiste, 2023). Sedona and Jordon were able to cite Self-Determination Theory and its connections to supporting students' autonomy, competence, and relatedness which

leads to increased motivation. Sedona further added, "When I teach about student motivation, I always bring up the Self-Determination Theory model and tell students the importance of motivating students." Both Sedona and Jordon worked with colleagues who study educational motivation and helped them as they reflected on their conceptualization of student agency. Sedona further added, "I really credit my knowledge of motivation to [colleague] and our time in grad school together. Before [colleague], the theoretical side of student motivation never crossed my mind." Sedona's comments rang true for other participants. Student motivation was identified as an important aspect of preparing SBAE teachers. However, participants struggled to connect teaching and learning theories to motivation theories. Thus, teaching and learning theories took precedence in the instructional and programmatic decisions participants discussed.

Belief of the Purpose of a SBAE Teacher Educator

As I explored the theme of beliefs of student agency, it became apparent that participants perceived that their perceived purpose as SBAE teacher educators influenced their beliefs of student agency and motivation. Participants believed their purpose was to prepare future teachers to enter a career in agricultural education. Their purpose in preparing future SBAE teachers is built upon the research of effective teaching previously described as well as their previous experience as SBAE students and middle/high school teachers. The complex, bound idea of SBAE influenced how participants conceptualized student agency. In this category, I will explore how SBAE teacher educators perceive their role and how they understand student agency in the context of SBAE teacher preparation programs.

Austin emphasized the supply and demand of SBAE teachers in the state his institution is housed and other participants highlighted the importance of preparing qualified candidates to meet the demand of SBAE teachers in schools. Austin explains, "[State] has a vast number of middle and high school teaching positions open every year. There are a variety of opportunities for students to enter the classroom." Within these vacancies, participants highlighted the motivating aspects of job security post-graduation for students. He further adds, "Teaching the subject of agricultural education, whether it be exploratory programs at a high school, or programs at a career technical school, there are so many options to enter." Austin highlighted how [State] offering a variety of program types for students to choose from serves as a significant motivator for them to complete a degree in agricultural education. In support of Austin's statement, Jackson stated:

> My purpose as an agriculture teacher educator is to serve as a guide for people who want to enter the profession of agricultural education. I am here to mentor and help them along. It can sometimes be a very complex system to navigate, especially the licensure part and the preparation components.

Jackson clarified that his role was to support students through the licensure process. As a contextual note, it's important to recognize the significant variation in licensure requirements among teacher preparation programs and the lack of consistency between institutions within the same state. Additionally, navigating these licensure requirements emerged as a key aspect of the perceived purpose of SBAE teacher educators. When I asked Lincoln why he felt as though his role was to help students navigate licensure

119

requirements, he stated, "because our advising center is not necessarily as familiar with all of the testing, background checks, and other hoops that the students had to jump through to earn their licensure." SBAE teacher educators serve as the one-stop shop for students, guiding them through the complex process of earning their teaching license and answering any questions they may have. Participants emphasized that the licensure process does not allow for a lot of student agency. Oftentimes, it is easier for participants to tell students what to complete rather than allow for students to work alongside the SBAE teacher educator. This is an example of prioritizing support for students through the licensure process over supporting student agency.

As I talked with Dallas about his purpose as an SBAE teacher educator, he added, "I see myself first and foremost as someone who needs to motivate and educate, but I also emphasize the importance of understanding my student population and in SBAE we do that really well." Dallas felt that his purpose was to meet his students' needs. He continued to explain, "I continually modify and adapt the curriculum to meet the needs of teachers currently working in the field and to better prepare my students for their future teaching positions." For Dallas, his belief in building rapport with students is connected to beliefs of student agency; however, he did not identify this as a motivating factor within his own SBAE teacher preparation program. This comment of "SBAE teacher preparation programs do [example] well" was a common statement among participants. Participants take pride in the uniqueness of SBAE but also reflect on its challenges. As participants reflect on the uniqueness of SBAE, student agency does not seem to be at the forefront of participants' conceptualization of beliefs.

Aspen's statement further affirms this belief that the purpose of SBAE teacher educators is to serve and impact the students they work with. She stated, "At the core of who I am, I believe it's important that we make a difference in the world and that we have a positive impact on people, as people are the most important." Aspen's purpose was grounded in her belief that students are human beings first and should be prepared to positively impact the world, both in general and within agriculture. The purpose of SBAE teacher educators is grounded in core beliefs about teaching and learning rooted in literature. These beliefs, in turn, influence participants' motivational beliefs.

Lincoln was heavily influenced by his purpose as a SBAE teacher educator. Within his state, teachers are expected to know how to pull a livestock trailer and bring students and their animal projects to livestock shows. He stated, "Students come into my program and do not know how to drive a truck, let alone pull a trailer." Lincoln's belief in preparing SBAE teachers was not only to support them through the licensure process, prepare them with content and pedagogical knowledge, but also to prepare them with the technical skills of being an SBAE teacher, like pulling a livestock trailer. Lincoln prioritized technical skill development over supporting student's agency in this specific example.

Ownership of Beliefs

As the prioritization and justification theme emerged, it became evident that for participants to integrate their beliefs into various aspects of the SBAE teacher preparation program, they first had to recognize if their beliefs aligned with their own practices. As I interviewed each participant to reflect on the barriers that exist and prevent alignment

121

between their beliefs of student agency and their practices, they began to justify their actions. Participants wanted me to understand that their beliefs were purposefully constructed and chosen tied to their specific beliefs about teaching and learning. Orlando became passionate about others in the profession taking ownership of their beliefs:

> There are [instructors] who are full of 'shit'. And sometimes they're knowingly full of shit and they will say, this is what I believe. This is what I stand for. And I think it's important. Then, you listen to their students or you see things happen in their class, whether it's advising, whether it's classwork. And you're like, well, that's bullshit. You don't actually believe that. You don't. You know what I'm saying? And so there's a certain level of honesty to this that you've got to have when allowing students to have agency.

My conversation with Orlando was guided by his belief of taking ownership of the practice of providing space to allow student agency instead of controlling classroom instruction in teacher-centered pedagogies. This justification was guided by his own observations of other instructors expressing the same belief when it came time to put actions into words.

Sedona worked at a university and department that valued reflection. I observed her belief of student recognition of their own growth during the classroom observation and prompted her to tell me why this belief is important to her as an SBAE teacher educator. Sedona told me, "Learning is constructed. Constructivism is foundational. But we've all had those experiences that don't support learning. So, if you can cue students to those experiences and break them down, you can help them understand." Sedona took

122

ownership of her beliefs because of poor past experiences of reflection as a student. Recognition of growth is important, but students may not recognize their own progress. Sedona connects beliefs and practices through prioritization and justification of her beliefs to support student's agency and motivation. Sedona connected her belief of students recognizing their own growth to building in reflection. She takes ownership of this belief and prioritizes providing a notebook and space for each student to reflect on their growth. During our post interview, Sedona pulled out a student's notebook and told me about the importance of reading through student responses to provide meaningful feedback that supports their individual learning needs.

I began to realize that the greatest barrier for participants to align their motivational beliefs was themselves. Aspen reflected on her alignment between her belief that students should have an innate desire to teach SBAE to the practice of clearly communicated course structure. For Aspen, her beliefs of student's agency were overshadowed by her instructional decisions guided by Darling-Hammond and Bransford (2007):

> Not only attached to my beliefs but also in the instructional decisions I make and the type of conversations that I even have with students one-on-one in addition to the whole class. Because it never fails our students to get kind of, they get caught up in what a teacher should be versus thinking about 'how do I be the best version of a teacher for me.'

Aspen and I further discussed her teaching and learning beliefs grounded in Darling-Hammond and Bransford's (2007) framework. Aspen stated, "I think it illustrates what

I'm trying to achieve as a teacher educator. I want to help to provide them with knowledge of content not necessarily that I'm the one teaching it, but opportunities for that development." Aspen owned her beliefs in Darling-Hammond and Bransford's (2007) framework which guided her conceptualization of student agency and motivation.

During our discussion about his beliefs, Jackson emphasized the importance of providing vicarious experiences for students. The foundation of SBAE is rooted in experiential learning and Jackson prioritized experiential learning experiences over agency. He illustrated this with an example, explaining how he offers early field experience opportunities for students:

> One of my favorite implementations of [experiential learning] is having students take a field experience class with me, usually the semester before they enroll in the methods class. While the group may vary, one constant is their requests for recommendations on whom to observe. I'm always happy to provide suggestions, including details on location and distance. My aim is to offer them a range of experiences where they can learn from teachers and engage socially with students. After they observe, I have them reflect on what they would take to their own classroom and what they may change.

Jackson was purposeful in how he communicated his beliefs and practices. He wanted every topic, assignment, and experience with the SBAE teacher preparation program to be intentional for students. However, because of his intentionality, Jackson's beliefs of student agency were overshadowed by the credit hour constraints by the university. Jackson reflected that the credit hour restrictions were limiting the amount of class hours

students can engage experientially in. For Jackson, this was an important part of his SBAE teacher preparation program and took priority over other aspects of the program.

For context, Jordon is early in their career as an SBAE teacher educator. Jordon was very honest about their confidence regarding barriers they encounter when enacting their motivational beliefs:

> I would love to sit here and say that [students] feel comfortable answering questions in my classroom because I create a warm and fostering environment where all ideas are accepted, right? I have no evidence of that, I couldn't bring out anything that's not tainted from my view. But I do think that I have forged a connection with every single one of those students, at least in a way where they know that I'm not going to shit on them for their answer. They know that I'm not gonna say, 'you're stupid. Get the hell out of my classroom.'

Jordon expressed their frustrations as a novice teacher and explained, "I was managing my own environment of trying to make them manage expectations." Jordon was the only person to tell me this. Jordon took ownership of not feeling confident in aligning their beliefs with practices. Jordon emphasized they were just trying to survive the first few years of teaching, "I am trying to be one step ahead of my students, I honestly haven't thought about their motivation." Further, Jordon did not feel bad for not having a clear path to support student agency since most of the decisions regarding the SBAE teacher preparation program were made by someone else.

As this sub-theme emerged, the greatest barrier to alignment between beliefs of student agency and practices was the individuals themselves, thus highlighting the

challenge and interpersonal dialog of aligning beliefs with actions in SBAE teacher preparation programs.

Fear of Losing Control

With the emergence of participants' prioritization and justification of beliefs also emerged the sub-theme of fear of losing control. Participants recognized the value of student agency; however, they also acknowledged their internal fear of losing control over the curriculum and topics when students act on their agency. After observing Aspen's course, we discussed in depth the structure of the course and why it was structured that way. Aspen responded, "I think we default to the lecture-discussion format in college classes because it doesn't require as much setup. Due to financial constraints, there are myriad reasons why we tend to default to this at this level." Aspen further explained that lecture was a way to control the information students were receiving during instructional time.

To further support this idea, Orlando shared an example of students "calling him out" for not being student-centered as he claimed during the first day of class:

> They were like, 'you talk about being student-centered, but we hadn't had a lot of opportunity yet to be student-centered completely.' And you know, I acknowledged that in my midterm review of the class. But the truth is, I didn't tell them, is that they honestly weren't ready yet to take ownership in the classroom. They just weren't ready to do have control yet.

I asked Orlando what he meant by "they weren't ready." He shared that the students were still "building and constructing their knowledge and confidence as teachers." This

126

sentiment was echoed by other participants; the idea of scaffolding student-guided

initiatives into the overall course structure was evident when I analyzed artifacts. Course

topics are constructed sequentially, assignments are built upon topics, and assignments

are built upon each other. The control of scaffolding topics, assignments, and experiences

for students felt secure for participants. Jackson further expanded on this idea, expressing

his fear of losing control. He stated:

> When I think about, you know, students being able to drive instruction, there is a
>
> kind of anxiety about what the intended product is and how it comes to the
>
> surface. I'm getting better. It takes those positive experiences on my part where
>
> I've relinquished a little bit more control than I did the time before, and it turned
>
> out positively, which encourages me to go a little bit farther the next time.

During my observation with Jackson, I noted an interaction between the instructor and a

student. The student questioned why the term used to describe 'agricultural literacy' was

not 'agricultural fluency.' Jackson allowed the student to share why he thought the word

should be changed and to provide justification. Jackson agreed with his student but

challenged the student to consider the issue from a different perspective. During the post-

observation interview, I asked Jackson to watch a video recording of the interaction and

provide his thoughts. Jackson responded:

> I think that again goes back to the amount of appropriate control within that
>
> environment. What adequate facilitation looks like to make sure that we're
>
> checking the boxes we need to check, but dedicating the most instructional time to
>
> the things that are most important to the students.

When discussing how students can appropriately guide instruction to support their own individual motivational needs, Aspen expressed her concerns, "Student agency, voice, autonomy are important but to a degree. I mean, you're 18; heck, your brain isn't even fully developed until you're about 25. You don't always know what you don't know. Students come in with a limited lens." Aspen raises valid concerns regarding student agency. The fear of losing control seems to ignite the internal filtration process.

Summary: Prioritization and Justification of Beliefs and the Connections to the Substantive Theory

The emergence of the theme prioritization and justification of beliefs was challenging to capture during the first interview and classroom observation. It became obvious that there was an unobservable psychological process initiating the integration of participants' beliefs and how they enacted their motivational beliefs. It is important to note that participants explicitly told me this was the first time they had thought about how they motivate students and the study itself was reflective in nature. As this study utilized several reflective practices, journal reflections, and stimulated recall, reflecting on beliefs is an important aspect connected to beliefs of teaching and learning as well as participants' purpose as SBAE teacher educators.

Within the substantive theory, the prioritization and justification of beliefs is highly personal to each participant. This theme captures the reflective process of integrating beliefs and practices into the substantive theory.

Approaches to Connect Motivational Beliefs to Practices

The fifth and final theme to emerge was the participants' approaches to connecting beliefs of student agency to agency supporting practices. In the final interview, I defined agency and agentic engagement for participants. The theme of approaches emerged as I began to identify participants' examples and stories as supporting student agency or reacting to student motivation. Within this theme, three sub-themes, or approaches, emerged. The first approach was the responsive approach, an approach where participants recognized student's agency and reacted to supporting their agency through motivational practices. The second approach, the contextually reflexive approach, emerged as participants recognized the contextual influences as a barrier to allowing students the opportunity to explore their agency. The third and final approach was the reflective approach. During the reflective approach, participants aligned their beliefs while considering contextual influences as a speed bump rather than a barrier and prioritized their beliefs to align with their practices.

Several participants saw the benefits of student agency but could not identify how their beliefs aligned with supporting student agency and their practices. Jackson sums up this thought:

> I feel like my beliefs align better than my practice does. I don't know if that makes sense, but I feel like I am sold on the idea [of student agency]. However, fully engaging [to allow students to explore their agency] is going to require breaking some habits and pushing some boundaries on my part.

129

Jackson, like other participants, expressed the benefits of providing student agency within the SBAE teacher program but did not believe he was consciously supporting student agency. When I asked Jackson to provide an example where he believed students were engaging agentically, he responded:

> Students often request an example to go off of. They ask, 'Can I have an example? Can you give me the rubric?' While I am always willing to provide these resources, there are many instances where I feel the need to encourage them to explore their own capabilities. I might say, 'Yes, I have an example that you can look at, but I really want to see what you can do with this. I want to see what you can come up with on your own.'

Participants explained the challenges that providing space for agency poses through written reflections in journal entries and in response to interview questions. The following categories introduce examples of how participants conceptualize their motivational beliefs and integrate them into the SBAE teacher preparation program. Each category provides a summary of the process and descriptions from participants conceptualizing various approaches. Additionally, approaches are not meant to place participants into profiles of supporting student agency. The approaches are examples provided by participants constructed from interviews, observations, and reflections. The examples shared are exemplary for each approach and participants could experience each approach depending on their beliefs and practices.

Beliefs of Student Agency to Agency Supporting Practices: Responsive Approach

The responsive approach identifies the direct path from beliefs of student agency to agency supporting practices of motivational beliefs. Shown in Figure 8, the responsive approach follows a path that does not filter through the prioritization and justification of beliefs and is not influenced by contextual influences of SBAE teacher preparation programs. For example, if the belief is that students have an innate desire to teach SBAE, the practice may be to provide opportunities for students to teach.

Figure 8

Responsive Approach

```
┌────────────────────────┐
│                        │
│  Beliefs of Student Agency │
│                        │
└────────────────────────┘


         ┌──────────────────────────┐
         │                          │
         │  Agency Supporting Practices │
         │                          │
         └──────────────────────────┘
                    ↑
```

——————— Responsive Approach

131
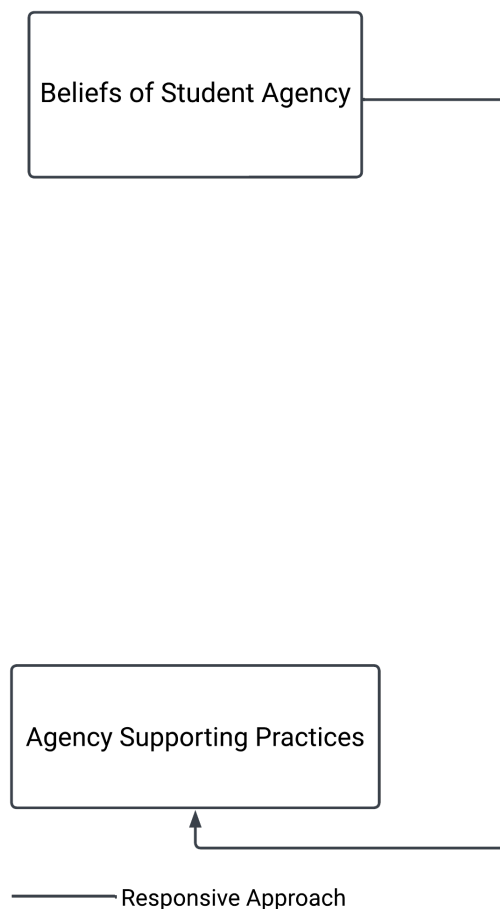
Within the responsive approach, participants identified a belief of student agency and responded by motivating students through agency supporting practices. However, there was a discrepancy between the definitions of engagement and motivation which led to participants acting in a responsive way toward student motivation. Jordon stated:

Motivation just means to move. And engagement, I mean, I don't really have a different definition for engagement; it's engagement. I know that engagement is probably a lot more focused on what the student is actually doing in that moment. Sometimes engagement almost could probably be seen as like base level motivation.

Jordon touches on a key aspect of motivation and engagement. Theoretically, the terms are two distinct concepts. "When students seem unmotivated, I react to meet their motivational needs," Jordon further states. The responsive approach recognizes students' motivation and acts to respond to the participant's observations of student's motivational needs. Further, the responsive approach does not focus on boosting student motivation or empowering agency. Instead, it centers on recognizing a motivational need and taking action without being influenced by psychological reflection or contextual influences.

Responsive Approach Example: Lincoln and Team-Based Learning

Lincoln, along with the other participants, clearly identified that students' confidence in their own ability to teach impacts their motivation and agency. Lincoln tied his belief of students' self-efficacy to the structure of his course and has been using team-based learning for more than ten years. At the beginning of the semester, students take a 'team formation quiz' that assigns them to groups comprising individuals with diverse

backgrounds and experiences, which will constitute their team for the entire semester. Evident in the syllabus and during classroom observation, students walked into the classroom, sat in groups, and began working on the team quiz. Lincoln stated, "While they took their team test [based on the assigned reading], I walked around, listening to their conversations, observing what they're getting right, what they're getting wrong, what they clearly understood versus what they struggled to understand."

Utilizing the team strategy supported students' efficacy through working with peers and receiving validation for correct answers. Furthermore, peers within the team hold one another accountable: "The teams are holding each other accountable, and so they're communicating with each other, rather than with me. They know exactly where somebody is ill, but they also know if someone is just skipping class." Lincoln forming teams and providing space for students to work confidently together increased their self-efficacy and growth during the semester. Further, peer evaluation was built into the course, supporting students' confidence. These peer evaluations were completed periodically during the semester and shared with students. Lincoln added, "Some students really turn it around in the second half of the semester if their peer evaluations are low." Lincoln relied on the practice of peer support to further support students' self-efficacy within the course.

Motivational Beliefs to Contextual Influencers of SBAE Programs: Contextually Reflexive Approach

The contextually reflexive approach identifies the path from beliefs of student motivation through contextual influencers to agency supporting practices. Contextual influencers of student agency were identified as positive and hindering influencers to

student agency by participants. Within the model, shown in Figure 9, participants who aligned their beliefs to their practices but were influenced by contextual influencers through the contextually reflective approach

Figure 9

Contextually Reflexive Approach
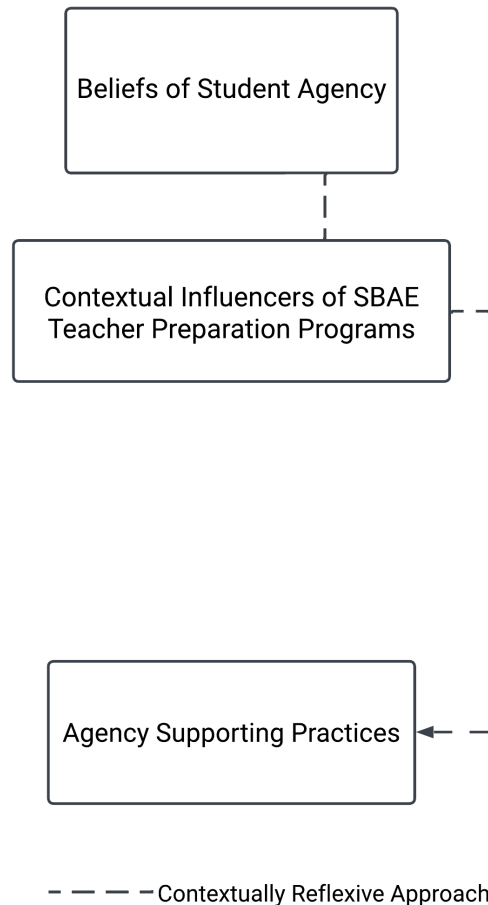
Jackson's integration of his belief that all students have an innate desire to teach is reflected in his assumption that students are enrolled in the agricultural education major because they want to be an SBAE teacher post-graduation. Aspen referred to student agency as static. For her, "static" referred to students' actions of unchanged motivation

within the SBAE program due to the contextual influences of the institution. Students are not exposed to the opportunity to engage in their agency before entering a university system. For many students, participants identified the challenge of thinking on their own and influencing instruction or experiences as they have never been allowed the opportunity to engage in that way before. Further, students have opportunities to provide feedback through formal end-of-course evaluation systems or non-formal midterm feedback if the instructor provides students with that opportunity. However, this feedback typically occurs at the end of a course. Aspen's beliefs of students recognizing their own growth, the lack of formal evaluation during the course and practice to allow students to reflect on course instruction guided her approach that was influenced by the evaluation system living within a university. However, when I asked how students influence programmatic decisions, she responded:

> Students don't know what they don't know. They need to learn about the logistical considerations of a university system before entering the classroom or courses, and there's only so much they can honestly contribute.

Aspen's role as an SBAE teacher educator is to prepare students to be effective SBAE teachers. In order to accomplish that, the responsibility for curriculum guidance rested squarely on her shoulders. While students can emphasize their own input on interests, improvements, and changes, ultimately, they are not the experts, and there is a depth to preparing SBAE teachers that is unknown to them. SBAE, as a complex, bound system, presents a barrier as she reflects on aligning her own motivational beliefs to how she enacts those beliefs.

135

Contextual Reflexive Approach Example: Orlando and the Contextual Bounds of SBAE

Orlando, from the beginning of our first interview to the final interview, was contextually driven during his answers. He provided a perspective of contextual influences that is an integral part of grounded theory methodologies. For Orlando, context mattered, especially when providing students with experiences that support their interests while supporting exploration of agency. I explored Orlando's belief in providing opportunities for students to engage in a real-world context. He emphasized how he dislikes learning through contextual osmosis. Orlando expressed his reasoning behind his belief:

> I hate the idea of, 'they'll just figure it out' or learning by contextual osmosis. That's just nuts, right? You're going to really learn when someone tells you, 'hey, listen up, this is what's happening and this is why it's happening'.

The example of learning about certain teaching methods, like problem-based learning, should not be taught through lecture alone. Orlando's thought highlights the importance contextual influencers play within how students engage and are motivated in his classes. Providing real-world experiences necessitates creating space for students to express their needs and desires within a program, but it also requires the SBAE teacher educator to take initiative and align their beliefs with their actions in the classroom while acknowledging contextual influences that could thwart student motivation and agency.

Further, Orlando reflects on the placement experiences of student teachers related to student agency, "You know, we're putting them in situations where they really don't have much agency [like student teaching placements]. And then they go teach and they

have a whole heck of a lot of agency." Orlando was one of the few participants to articulate the internal reflection taking place outwardly regarding his thoughts on student agency and the contextual influences of licensure requirements. Further, Orlando references the complexity of SBAE and how that can hinder students' agency. He added, "Students are placed and follow what their cooperating educator does." There is a tension between student teachers who must follow expectations from the university, SBAE teacher preparation program, cooperating teachers, and the exploration of their own agency. Orlando's comment echos the contextual influencers that potentially hinder student agency within the SBAE teacher preparation program. Further, the laden idea of SBAE influences how Orlando believes he can integrate his motivational beliefs. Orlando stated:

> So maybe I'm sitting here preaching agency when I'm teaching one of the most completely bound ideas [SBAE] at the whole university. I think the crime is not giving students the agency. But the traditions hold some people back from thinking outside of the group.

Orlando aligns his beliefs of student agency with the idea that each student is an individual, and he perceives that student agency is being thwarted by the traditions and symbolism of SBAE.

Beliefs of Student Agency to Prioritization and Justification of Beliefs: Reflective Approach

The reflective approach identifies the path from motivational beliefs through contextual influencers and prioritization and justification of beliefs to agency supporting practices. The reflective approach captures each individual approach that reflects on their

beliefs, previous experiences, practices, and contextual influencers. As shown in Figure 10, the reflexive approach captures participants' conceptualization of student agency through contextual influencers and prioritization and justification of beliefs.

Figure 10

Reflective Approach

Beliefs of Student Agency

Contextual Influencers of SBAE Teacher Preparation Programs

Prioritization and Justification of Beliefs

Agency Supporting Practices

- - - - - - Reflective Approach
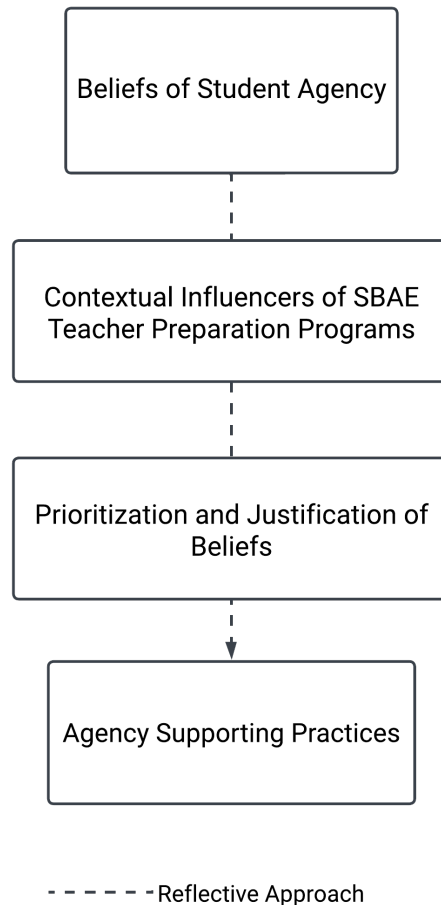
While participants identified their beliefs of motivation and agency, some beliefs take priority over others. When explaining the barriers Dallas observes to align his beliefs of student agency with agency supporting practices, he describes:

I feel as though I may decide that my belief [rooted in principles of effective

teaching], takes priority in allowing students to have agency. And I don't really

think about it, but at some point, I tell myself that students being able to write

clear, measurable objectives is more important than a student being able to

express who they are as individuals 100% of the time.

Dallas's role to prepare students as teachers, supported by his foundation of teaching and

learning, emerged through the prioritization and justification of beliefs. The reflective

approach identifies beliefs of student agency and allows for individual reflection of

aligning practices, priority of beliefs of teaching and learning, and contextual influencers.

Motivation was identified as a difficult concept to overserve among students and

how internal one's own motivation can be. Sedona states:

Motivation, as a concept, is difficult to observe, especially among

students…Motivation is incredibly complex, and there is no easy answer; there's

no perfect solution. All you can do is set the table and try to do the best you can to

get students motivated and engaged.

For participants, student agency was expressed as a necessary component to prepare

SBAE teachers. However, participants lacked the confidence to clearly identify student

agency behaviors and practices within their SBAE teacher preparation program because

of the nuanced idea that student agency poses.

Reflective Approach Example: Jordon and Teaching is a Science and an Art

Jordon was in the early stages of their career as a teacher educator. I asked Jordon

to connect their beliefs of student agency, that students are unique and an individual, to

139

how they align to an agency supporting practice. Jordon reflected on their beliefs and filtered them through several layers to understand why they believe that every student is unique and should be treated as an individual. Based on this belief, Jordon believes that students should be given opportunities to explore their interests through experiential learning. Jordon expressed:

> We cannot realistically say that [student agency] must happen with every student. It's one of those things that, you know, we talk about teaching being a science and an art. And it's almost like I can only teach the science. To really appreciate art, you have to understand the wide variety of the ways that it can really appear. And so through those moments, what I'm really trying to dig at in that question, 'What is your unique way teaching?' I can't tell *you* what's important as *you* create your own art of teaching. That's really the importance of [students agency] as it relates to teacher education, as it comes especially to any sort of skill-based knowledge that involves an art. And really, any art.

Jordon connects the science of teaching to their foundational belief in teaching and learning rooted in literature. However, they identify that there is also an art to teaching that is unique to each student. Furthermore, Jordon provides students with the opportunity to explore their interests through experiences built into the course structure. Jordon shares a story of a student finding their 'art' of teaching:

> Earlier, I told you about a student whose parent is an agriculture teacher in the state. They come into class always engaged and speak up without me having to call them out. But I am trying to get them out of their comfort

zone and think beyond their previous experiences. [Student] constantly compares topics in class back to their parent's beliefs about teaching agriculture. It's so frustrating because there isn't just one right answer. I am trying to get the student to realize this... I try to encourage them to think beyond their box, especially during the microteaching assignments. Students can pick any topic they want. So far, [student] has only picked a topic that is something she has taught before. I ask myself, 'I don't know how I can provide any more choice and flexibility in an assignment?' I am trying to allow student to have agency, but is it working?

Jordon's efforts to provide space for students to explore their own interests did not connect back to students' recognition of growth. Jordon's reflection about the student relies on their previous experiences and does not consider the opportunities for growth. However, Jordon followed up by saying:

I will still allow students to have choice in their topics because I know some students use this as an opportunity to teach in an area that they aren't comfortable in. I think—I mean, I hope—that the microteaching assignment supports students' motivation and agency.

Student agency is influenced by the participants willingness to integrate agency supporting practices into the SBAE teacher preparation program. Participants express a frustration that students often rely on comfortable experiences instead of exploring their agency where they lack confidence. For Orlando, student agency is an art and science that

141

depends on the individual student to explore their desired interests and find their confidence to teach SBAE.

Summary: Approaches to Connect Motivational Beliefs to Practice and the Connection to Substantive Theory

Each category provides a summary of the process and descriptions from participants conceptualizing various approaches represented within the theory. The three approaches—responsive, contextually reflexive, and reflective—emerged as individuals conceptualized their beliefs and how they enacted them through different processes. These approaches represent the ways in which participants conceptualized the connections between each theme. Participants in SBAE teacher preparation programs grappled with aligning their motivational beliefs with their instructional practices, navigating each approach was the motivational beliefs identified in the first theme presented. These examples are provided to show how participants discussed each approach they took and how they began to conceptualize student agency within SBAE teacher preparation programs.

Substantive Theory

Based on the five themes (beliefs of student agency, agency supporting practices, contextual influence of SBAE teacher preparation program structure, prioritization and justification of beliefs, and approaches to align motivational beliefs to enactment), a theory was developed to conceptualize SBAE teacher educator's beliefs of motivation and agency and how they integrate their beliefs into the SBAE teacher preparation program. See Figure 11 to see the depiction of themes and the approaches delineated by three different pathways.

Figure 11

Approaches of SBAE Teacher Educators' Integration of Motivational Beliefs of Student Agency
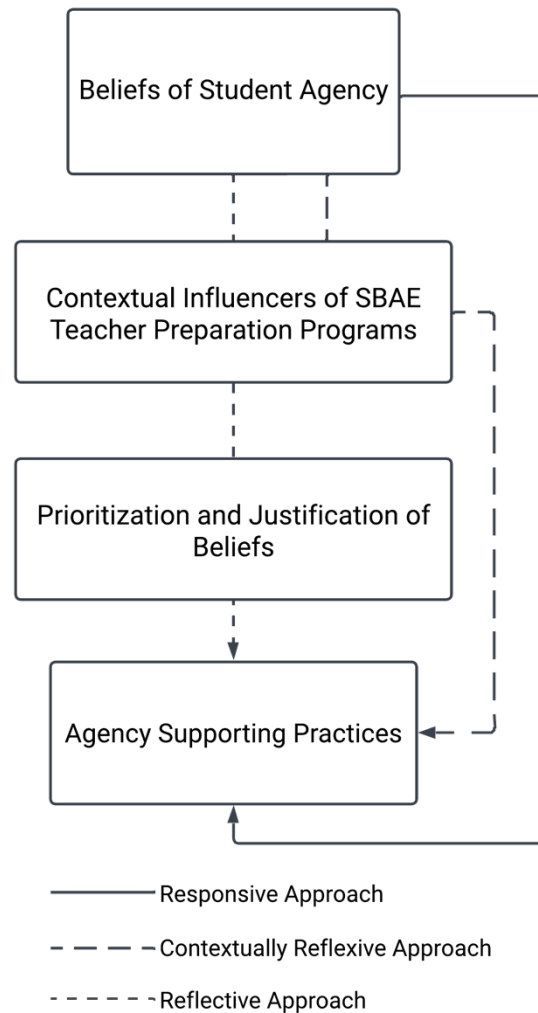
Within the substantive theory, four themes can be viewed in the interaction of the theory. The fifth theme is represented by the types of pathways that illustrate the approaches described by participants. Participants can integrate their beliefs of student agency using a direct approach called the responsive approach that bypasses the introspective process and contextual influences. In this approach, participants identify a

motivational belief and react to support students, whether they are motivated or unmotivated. The second pathway, the contextually reflexive approach, is connected by the introspective process and contextual influences theme, where participants described the reflection of their beliefs and the influence that context has on how they enact their beliefs. The third and final pathway, the reflective approach, emphasizes the individual introspective process that participants described to understand their own priorities when enacting their motivational beliefs. The theory behind the approaches of SBAE teacher educators' integration of motivational beliefs of students agency.

Chapter 5. Discussion

Through this study, I developed a theory that conceptualizes SBAE teacher educators' approaches to integrating motivational beliefs regarding student agency. The theory emerged as I explored the processes of SBAE teacher educators aligning their beliefs of student agency and agency supporting practices. The initiation of this grounded theory study began with exploring SBAE teacher educator's beliefs of agentic engagement. However, during data collection and analysis, it became evident that SBAE teacher educators encountered difficulties while conceptualizing agentic engagement. Thus, the data guided a shift in the research to focus on student agency and motivation. This study proposes a new approach to conceptualizing student motivation within an SBAE teacher preparation program. Further, it emphasizes the importance of offering students opportunities to explore their motivation through practices that support their own agency. Within the theory, the conceptualization of student agency followed several approaches represented within the visual model of the theory shown in Figure 12.

145

Figure 12

Approaches of SBAE Teacher Educators' Integration of Beliefs of Student Agency
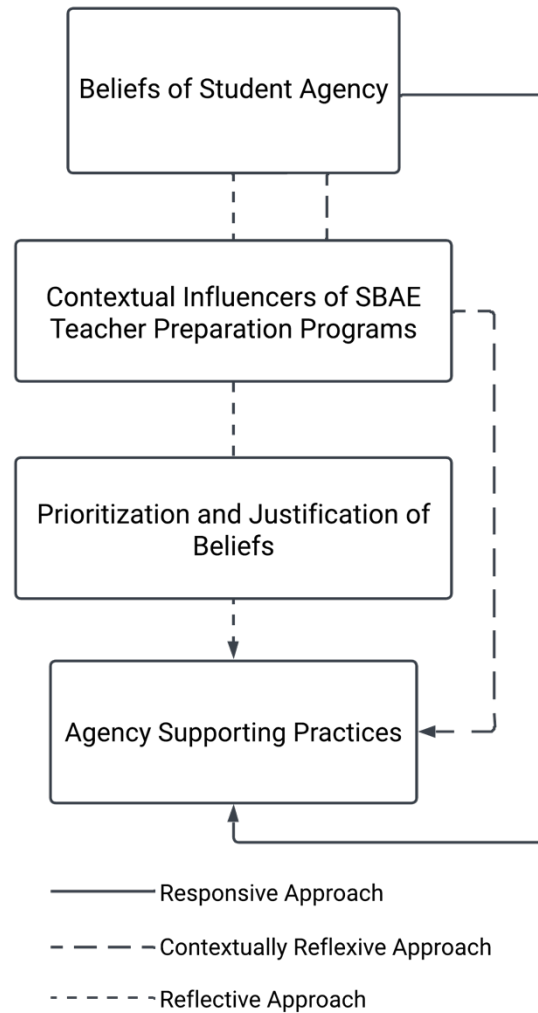
The findings from this study align with previous research in motivational studies, particularly concerning the nuanced concept of student agency (Zambrano et al., 2023). Five main themes emerged to support SBAE teacher educators' understanding of student motivation and agency: beliefs of student agency, agency supporting practices, prioritization and justification of beliefs, contextual influences of SBAE teacher preparation program structure, and approaches to align beliefs to practices. Prior research

has delved into motivational beliefs among SBAE secondary teachers (Bowling et al., 2022), novice teachers (Glas et al., 2021), and physical science teachers (Zambrano et al., 2023), however this was the first exploration into the motivational beliefs of SBAE teacher educators.

Conceptualizing Student Agency in SBAE Teacher Education

The novel concepts of student agency and agentic engagement are gradually gaining traction in the field of education as a means to address students' psychological needs and bolster motivation. For in-service teachers, the idea of teacher agency is built upon the interplay of individual capacities, resources, and environment that support the way that they act (Cochran-Smith et al., 2022; Priestley et al., 2015). Further, student agency transfers into the student's future career setting as they will act upon agency as a novice teacher to express teacher agency (Cochran-Smith et al., 2022; Glas et al., 2021). The findings of this study echo the sentiments that motivation is a continual process, not seeking a specific outcome (Bowling, 2017; Schunk et al., 2014). Supporting student motivation involves more than just immediate outcomes. It requires a holistic approach that considers supporting the long-term aspirations and psychological needs of SBAE teacher preparation program students. This study addresses the holistic process of supporting student motivation by presenting various approaches that SBAE teacher educators can adopt and integrate into their teaching and advising approach of preservice teachers.

As presented in the findings and change of research questions, the definition of agentic engagement posed a challenge for SBAE teacher educators to conceptualize as

147

they struggled to align their beliefs and practices to one another. However, an overlap between the theoretical underpinnings of agentic engagement and participants' conceptualization of student motivation and agency was observed. The difficulty in conceptualizing agentic engagement for SBAE teacher educators mirrors that of high school physical science teachers; the common thread among educators was, while I (the teacher) acknowledge agentic engagement, I (the teacher) struggle to explain how I enact those strategies within my classroom (Zambrano et al., 2023). Post-secondary students are expected by university faculty to engage in a self-directed manner, without relying on the instructor to initiate. While the concept of agentic engagement is explored to support secondary student motivation, the term "agentic engagement" does not fully recognize the unique contextual influences of SBAE to support student agency, nor does it address how SBAE teacher educators conceptualize supporting student agency. This acknowledgment further supports the reflective approaches introduced by this study for SBAE teachers to consider as they conceptualize their own beliefs of student agency and motivation.

To the best of my knowledge, this study is the first to explore teacher educators' motivational beliefs regarding student agency. However, the beliefs of student agency, practices, and approaches align with previous findings that have explored student agency (Patall, Kennedy, et al., 2022), autonomy-supportive instructional behaviors (Reeve & Cheon, 2021), and agentic engagement (Patall, Kennedy, et al., 2022; Patall, Zambrano, et al., 2022). Further, motivational beliefs are intertwined into the scholarship of teaching and learning through the beliefs and pedagogical approaches participants described and demonstrated. It would be unfair to expect that the foundational beliefs of characteristics

of effective teaching (Rosenshine & Furst, 1971) does not support SBAE teacher educators conceptualization of student agency. Students seek clear guidance to help them understand course expectations, assignments, and licensure requirements. Further, students also seek clarity to boost their confidence in their teaching abilities (Bandura, 2001; Patall, Zambrano, et al., 2022). Their self-efficacy plays a crucial role in fostering their growth and development as they start to build their professional teaching identity and act upon their agency (Vansteenkiste et al., 2020).

This study further supports research that motivation is a process that does not seek a specific outcome. For adult learners in SBAE teacher preparation programs, their motivation is driven by self-directed initiative that supports the conceptualization of motivation as student agency. SBAE teacher educators support students' agency through various approaches as students express their desire to teach, efficacy, individualism, and growth. The foundation for supporting student agency is established by creating a motivating and supportive environment by SBAE teacher educators. SBAE teacher educators conceptualize motivation as a process (Bowling, 2017), that extends beyond specific motivational outcomes and focuses on individual student agency.

SBAE Teacher Educator Motivational Beliefs and Influence on Instructional Decisions

Instructional decisions in the SBAE teacher preparation program are guided by the goal of SBAE teacher educators: preparing students to become SBAE teachers. While this statement may seem simple, the complexities of SBAE lie at the heart of the transformation and modernization of agriculture. SBAE teacher educators want students to discover their own teacher identity. Through this identity, they aim to support students'

149

agency to effect change and grow within the intersection of education and agriculture. As agriculture modernizes, so does SBAE. SBAE teacher educators seek students who think critically and take ownership of their development as teachers. Through this, student agency is formed. However, SBAE teacher preparation can be an incredibly constricting environment on students' agency and motivationally thwarting. For example, students are expected to meet specific learning outcomes and be evaluated on a grading scale that compares students' success based on a numeric grade. Authentic learning assessments are present within the SBAE teacher preparation program but follow specific guidelines in order to evaluate students to be able to pass classes and be recommended for licensure. Yet, as soon as students graduate from SBAE teacher preparation programs and enter a career as an SBAE teacher, they are faced with being an agent and deciding how to act on their agency within the space they are in (Cochran-Smith et al., 2022). To thwart student agency during the SBAE teacher preparation program is to prevent new SBAE teachers from acting independently to instigate change.

The SBAE program is unique due to the breadth of content and contextually unique aspects of the SBAE teacher educators' role. SBAE teacher educators emphasized that their beliefs centered around students with a direct path from agriscience education major to the SBAE classroom. However, we know that not all students enrolled in an agriscience education major will enter the classroom. Caution should be exercised when interpreting the finding that students need to have an innate desire to teach SBAE. In some respects, the innate desire to teach SBAE supports the collective interests of students and initiates intrinsic motives of students. Yet, students may change their major

and seek out other employment opportunities within the agriscience major. In some cases, this may create other innate desires that drive student agency.

Further, the innate desire to teach SBAE may be driven by students' own experience as a SBAE high school student. However, these previous experiences may hinder students from expressing their agency by relying on these preconceived ideas about teaching based on their previous experiences as students themselves (Lortie, 1975). Student agency is further characterized by SBAE teacher educators as the ability of students to recognize their own growth. When students enroll in the SBAE teacher preparation program, they do so without prior knowledge of teaching and learning. Balancing support for students' interests with preparing them with pedagogical and content knowledge can be a challenging task (Darling-Hammond & Bransford, 2007). SBAE teacher educators identified the innate desire to teach SBAE as a psychological support mechanism to support students individual and collective student agency. SBAE teacher educators need to reflect on their beliefs and recognize the importance of supporting student agency while preparing them to teach.

Implications of Contextual Influencers

Motivation is difficult to observe and conceptualize (Schunk, 1991; Ryan & Vansteenkiste, 2023) and understanding motivational beliefs is difficult to conceptualize. Context can play an important role when considering beliefs. For example, pedagogical approaches differ between secondary and post-secondary settings. However, some of the approaches SBAE teacher educators took to supporting student agency align with other research on motivational beliefs (Bowling, 2017; Bowling et al., 2022). SBAE teacher

151

educators believe that students need to recognize their growth (Bowling et al., 2022) and that it is their responsibility to foster student growth through agency supporting practices. Considering contextual influences is crucial as the education sector seeks teachers who can be agents of change (Cochran-Smith et al., 2022).

Understanding motivational beliefs allows teachers to recognize when student motivation is being supported or thwarted, enabling them to intervene and support student agency. Student motivation is a crucial aspect of the SBAE teacher program. However, the program itself can impede the conceptualization of student agency due to complex licensure requirements, university constraints, and the rigid idea of SBAE. Moreover, student agency benefits students by fulfilling psychological needs, promoting overall well-being (Reeve & Cheon, 2021) within the university setting, and aligning with post-graduation goals.

Licensure requirements and university constraints are not unique to SBAE. The licensure structure varies across each state and institution, as do the relationships with the organization responsible for teacher licensure. Depending on the institution and the motivational beliefs of SBAE teacher educators, licensure requirements were seen as either a significant barrier to student agency or as one of the most fulfilling aspects of student agency in the SBAE teacher preparation program. The placement of student teachers is a large role of SBAE teacher educators. For student teachers, a placement can be extremely needs-fulfilling or needs-thwarting for students, depending on mentorship and a student's confidence to teach (Kaplan & Madjar, 2017). In order to support student agency, SBAE teacher educators need to seek out student input of their areas of strength

and weakness when placing student teachers. Relying on SBAE teacher educators' opinions alone can thwart student motivation. Allowing students to have agency within the student teaching process supports students' psychological need fulfillment, thus increasing their motivation. On the opposing side, several SBAE teacher educators expressed the lack of agency within the placement process. This emerged in the form of placing students based on location or quality of cooperating teacher, with little input from the students themselves. SBAE teacher educators who expressed low student agency within the placement process described students' motivation during their placement as distracted, struggling to form relationships (with cooperating teacher and students), and expressed that students struggled to develop their teaching identity (Darling-Hammond & Bransford, 2007). While this study did not explore the motivational beliefs of cooperating teachers, the approach cooperating teachers express should be considered while interpreting these findings. While licensure requirements vary by state and institution, there is opportunity for student input, thus SBAE teacher educators are encouraged to reflect on how they can integrate their motivational beliefs of student agency into the licensure requirement process to support students' motivation during their placement experience.

Universities restrict the number of credit hours that a degree program can expect students to fulfill to meet their degree requirements. Due to general education classes, major specific and licensure-required courses, and department electives, students often have limited opportunities to explore classes they are interested in (Sutcher et al., 2016; Torres et al., 2010). This is especially true for students at smaller institutions with fewer

153

options for fulfilling required courses. However, a point of attraction of an agriscience degree is that it can support various career goals post-graduation: teaching in a traditional, comprehensive high school classroom, teaching at a career and technical center, or non-formal teaching careers. Further, hour constraints placed on degree programs encroach on departments' opportunities to fulfill the required courses, limiting experiential learning experiences, exploration of agricultural content areas, and post-graduation career opportunities for students.

SBAE teacher preparation programs consider the holistic, bird's-eye view encompassing content related to the agricultural industry and consumer agricultural literacy (Torres et al., 2010). SBAE teachers must be prepared to teach a variety of content areas, ranging from animal science to plant science to agricultural mechanics to agricultural business. The breadth of agriculture courses can be autonomy-thwarting for students who want to specialize in a specific interest area, for example, veterinary science. However, for some students, the wide range of subjects allows them to have control over the curriculum and learning outcomes. The breadth of content areas is a recruiting tool for SBAE teacher educators, but it can be overwhelming for students once they are presented with degree requirements. In terms of student agency, students may feel stressed and overwhelmed to become content experts within the various areas of agriculture. The stress of not feeling competent in a content area does not fulfill the motivational needs of students to express their agency.

Prioritizing Student Agency Within the Scholarship of Teaching and Learning

As experts in their respective fields, SBAE teachers were knowledgeable about best practices in education, including the scholarship of teaching and learning, to support their research interests and course planning. As SBAE teacher educators conceptualized motivation and student agency, they began to prioritize beliefs of scholarship of teaching and learning without explicitly recognizing and naming motivational concepts. However, while SBAE teacher educators recognize teaching and learning theories within their teaching practice, I encourage SBAE teacher educators to reflect on how their current beliefs can be expanded to include motivational theories that support their research and teaching practice.

Participants leaned heavily on Maslow's Hierarchy of Needs (1987) theory to conceptualize motivation. Critiques of Maslow's Hierarchy of Needs (1987) explore the lack of equitable access to post-secondary education opportunities (Wahba & Bridwell, 1976). First, the theory relies on the concept that students need fulfillment, which relies on a hierarchal flow (Kanfer et al., 2017). In post-secondary settings, many college students are food-insecure yet are still motivated and flourish within the university context. Further, Maslow's Hierarch of Needs has elitist implications where only higher classes can fulfill their needs and move up their hierarchy to self-actualization (Wahba & Bridwell, 1976). Citing Maslow's Hierarchy of Needs (1987) has implications of thwarting student agency by depending on fulfilling lower order needs first, without considering more internalized motivational factors. Further, contextual influencers played a key role in theory development, a concept not captured by Maslow's Hierarchy of Needs (1987).

SBAE teacher educators who move through the reflective approach emphasize why it is difficult to encourage students to explore their agency. Factors such as time constraints, competing priorities, and limited resources can influence the filtering and prioritization process as educators consider aligning student agency with their own actions. The fear of losing control emerged as an internal barrier to aligning beliefs to their practices (Zambrano et al., 2023). Student agency requires instructors to minimize the constraints imposed by university credit hour limitations, state licensure requirements, and the complexities of SBAE as much as possible. As SBAE teacher educators confront the prioritization of maintaining control, student agency may occur more naturally within the bounds of SBAE. To promote student agency, SBAE teacher educators will need to release the control they have as experts in the field of teacher preparation and allow students to influence instruction, placements, and course structure. Further, the influence of context on student motivation mimics studies seeking to support student motivation (Bowling et al., 2022) and agency (Glas et al., 2021; Zambrano et al., 2023).

The prioritization and justifications of student agency beliefs place emphasis on reflection, growth, and regulation (Ryan & Deci, 2020). Within this study, the prioritization and justification of beliefs initiated the reflective practices emphasized in Self Determination Theory that supports intrinsic motivation (Vansteenkiste et al., 2020). Through the second approach presented within the theory, the reflective approach, SBAE teacher educators can reflect on their beliefs and align with their agency supporting practices. To encourage student agency, it is important to intentionally align priorities through a reflective process of prioritization. SBAE teacher educators expressed their

156

unwavering passion for preparing the next generation of SBAE teachers. When SBAE teachers allow students time to develop relationships with each other, it fulfills the need for relatedness for students, but also for the SBAE teacher educator. Further, SBAE teacher educators who integrate opportunities for motivational beliefs of student agency can begin to fulfill students' need for competence. Teaching can be incredibly isolating, especially for novice teachers. Developing students' self-efficacy involves encouraging them to reflect on their teaching abilities, structuring the course to provide growth opportunities (Zambrano et al., 2023), and applying learning in real-world scenarios to support the internalization of self-confidence and further growth. Further, SBAE teacher educators approach students with empathy to encourage students to take ownership of their own learning and growth (Reeve & Cheon, 2021). The reflective approach itself is autonomy-supporting of SBAE teacher educators' motivational needs as they work through prioritizing their beliefs. While in a perfect world, aligning motivational beliefs with SBAE teacher educators seems sufficient to support student agency. However, context plays a key role in the conceptualization of student agency (Glas et al., 2021; Zambrano et al., 2023) for SBAE teacher educators.

The Future of Student Agency in Teacher Education

SBAE teacher educators need to take the lead in providing opportunities for student agency to enhance motivation, self-regulation, and overall well-being (Reeve, 2013; Ryan et al., 2023). They can accomplish this in a variety of ways through the three approaches presented within this study. Additionally, providing students with choices can increase their interest and value, supporting motivation but not autonomy. Within SBAE

157

teacher preparation programs, choice occurs in a variety of ways. For example, students can explore choice among early field experience opportunities, choice within classroom assignments, and choice of electives. Choice supports student agency through the responsive approach. The responsive approach relies heavily on extrinsic motivators that the SBAE teacher educator can introduce to increase student motivation (Ryan & Deci, 2000b, 2020). Humans seek control within a social environment, relying on extrinsic motives to encourage engagement (Ryan & Deci, 2020). Similarly, SBAE teacher educators who control the motivational opportunities for students do not allow for students' internalization and thwart their intrinsic motivation.

The findings discussed contextual influencers of licensure requirements, university constraints, and the complex, bound ideas of SBAE as barriers for SBAE teachers to provide opportunities to integrate student agency in the SBAE teacher preparation program. Student agency and student motivation go hand-in-hand. However, SBAE teacher educators realized they had to let go of their own controlling behaviors in order to allow for student agency to occur to further support student motivation within the SBAE teacher preparation program. Letting go of control was autonomy-thwarting for SBAE teacher educators (McLennan et al., 2021). Losing control had implications for discussion topics that were not controllable by SBAE teacher educators. Further, end-of-course evaluation scores are influenced by a well-structured course that engages and motivates students, providing limited opportunities for students to express their agency. University policy may also influence curriculum decisions SBAE teachers have to make in order to meet restricted hours and course offerings. Student agency within the

158

university system outwardly encourages students to develop critical thinking skills and solve world challenges through innovation and creativity. Yet, the constraints of a university pose one of the greatest barriers for student agency. SBAE teacher educators have various opportunities to promote student agency, including providing student input on placements, offering a range of choices to fulfill early field experience requirements, and being flexible with assignments to allow for authentic student assessment and application. If SBAE teacher educators are not aware of their reflective practice and contextual influences that impact the alignment of their beliefs with their actions, student agency will be overwhelmed by the complex demands of an SBAE teacher preparation program.

As SBAE teacher educators support students' motivation, I want to emphasize that the approaches are *not profiles* placing individuals into one approach. The approaches serve as a means to comprehend the internal dialogue of how SBAE teachers conceptualize the process. The process entails deep self-reflection, requiring individuals to take ownership of their motivational beliefs and acknowledge that certain beliefs may take precedence over others when identifying internal barriers to enacting their beliefs. Furthermore, each teacher educator possessed multiple beliefs, used multiple belief supporting practices, and engaged in all approaches to connect their beliefs and practices.

As the concept of student agency continues to develop (Bandura, 2018; Chaaban et al., 2021; Glas et al., 2021; Zambrano et al., 2023), ownership of aligning beliefs of student agency to pedagogical practices should lie with SBAE teacher educators. Student agency comes with its own challenges, and both teacher and student reflection should be

incorporated to support the conceptualization of student agency. It is important to note that context influences much of this theory. When interpreting these findings, it is important to recognize that the context of SBAE may not be transferable to all teacher preparation areas outside of SBAE. Further, acknowledging contextual influences should not be used as a barrier to further thwart student agency, but rather as a potential area for growth for students to use their agency and seek out influence or change. Further, beliefs of student agency are an incredibly interpersonal formation that requires reflection, ownership, and alignment of beliefs to practices. As SBAE teacher educators recognize the importance of agency and begin to integrate it into the SBAE teacher preparation programs, the benefits of student engagement and motivation will have lasting effects.

Recommendations

Recommendations for Teacher Educators

The first recommendation for SBAE teacher educators revolves around utilizing the theory as a reflective tool for themselves to further support student agency (Glas et al., 2021). SBAE teacher educators are encouraged to be deliberate in their self-evaluation at every stage of the process, carefully considering how they prioritize each belief by going through the theory and intentionally reflecting at each step. Furthermore, once SBAE teacher educators identify their beliefs of student agency, they should scaffold student agency practices into the SBAE teacher preparation program. Begin with an established assignment and ask, "Does this provide an opportunity for students to explore their agency?" As SBAE teacher educators become more confident and less fearful of losing control, I encourage them to integrate more opportunities for student

160

agency into all aspects of the SBAE teacher preparation program beyond classroom instruction. Additionally, SBAE teacher educators should identify contextual influencers within the SBAE preparation program and work to remove as many barriers to student agency as possible. While students thrive on consistency of course structure, I encourage SBAE teacher educators to build in opportunities for students to influence the course structure that supports their motivation through understanding individual student interests, allowing space for students to explore their agency and fostering relationship with students to support their induvial psychological needs. Additionally, SBAE teacher educators should seek out mentorship placement for student teachers in an environment that allows student agency to flourish. Emphasis on teachers who support an agentic mindset of teaching and mentorship should take priority when placing student teachers. Overall, SBAE teachers are encouraged to identify current practices that align with agency supporting practices and continue to develop those practices to further support student motivation and agency.

Recommendations for Teacher Preparation Programs

Contextual influencers play a crucial role in aligning beliefs of student agency with practices. Teacher preparation programs can provide SBAE teacher educators with the necessary resources to support student agency. Resources may include physical reflection journals, funding for experiential learning experiences, and compensation for SBAE teacher educators to advise students using an autonomy-supporting approach (Reeve & Cheon, 2021). Further, universities are placing maximum credit hour limits on degree programs. For SBAE teacher preparation degree programs, this poses a challenge

161

for the breadth of agricultural content students are expected to teach after graduation. I encourage university, college and department stakeholders to take caution when placing restrictions on degree programs without the flexibility to fulfill credit hours autonomously by students and advisors. Additionally, a point of stress for SBAE teacher education is the evaluation of their teaching performance. Administrators of SBAE teacher preparation programs are encouraged to revise evaluation instruments to include items that provide feedback for instructors to understand if students feel supported to express their agency.

Since SBAE teacher educators generally enter the profession from doctoral programs, I encourage doctoral programs to evaluate their curricula and include motivational theories in their teaching and learning theory curricula. Understanding the theoretical foundations of student agency and motivation will assist future faculty members in teaching, mentoring, and advising undergraduate and graduate students who are part of an SBAE teacher preparation program.

Recommendations for State Departments of Education

I encourage stakeholders who have influence in the state licensure process to explore opportunities for students to exert agency throughout the process without watering down the requirements. State departments of education are encouraged to review licensure requirements to include opportunities for choice to earn licensure. Examples of choice could include options between GPA, ACT, or SAT for preliminary licensure. Additionally, the added stress of the financial burden associated with licensure requirements is motivationally thwarting students to enter the profession (Perryman &

Calvert, 2020). Licensure requirements require multiple tests, background checks, and fees. I encourage state departments to consider a single fee that students can expect to pay upfront that encompasses the financial requirements to earn licensure. However, allowing opportunity for agency does not assert removing licensure requirements but rather upholding the rigor of ensuring highly qualified teachers that support teachers entering the field and being retained within the profession. Considerations of removing these cost barriers for students should be explored to encourage all qualified student teacher candidates to apply for licensure. I encourage administrators and licensing agencies to consider how credit hour restrictions impact students' agency and motivation within the university setting. Degree programs should seek a balance between required courses to prepare students for the science of teaching but consider the individual person who is creating their art of teaching as degree hours become more restrictive. As state expectations for credit hours and degree requirements evolve over time, I encourage policy makers to evaluate changes through the lens of student motivation and agency.

Recommendations for Future Research

Student agency in teacher preparation needs further exploration. This study was the first to explore SBAE teacher educators' beliefs about student motivation and agency. First, this study should be expanded to include a larger sample of SBAE teacher educators and a larger variation of university structures and years in the profession to further explore teacher beliefs and validate approaches teachers take to support student agency. Motivation is a multidimensional concept, thus further explorations should consider other characteristics influencing student motivation and agency. This chapter

163

highlights that motivation is a process that does not lead to a specific outcome. As the beliefs of student agency drove the creation of this substantive theory, the exploration of beliefs that encompass concepts beyond student agency should be explored among a diverse population of teacher educators and programs. There are many stakeholders beyond SBAE teacher educators who support student agency. Exploration of student agency should include cooperating teacher beliefs, university administrator beliefs, and student beliefs in hopes of illuminating a holistic approach to supporting student agency and motivation within a SBAE teacher preparation program.

Qualitative research should focus on exploring the process of student agency and how it is integrated into an SBAE teacher preparation program. The approaches that emerged within the substantive theory were influenced by the unique context of SBAE. Further exploration should identify other contextual influencers that impact student agency and motivation. Longitudinal research should explore the impacts of long-term motivational outcomes as individuals move from preservice programs to being in-service teachers. Further, a vital part of SBAE teacher preparation programs is the placement experience for student teachers. It is important to investigate the motivational beliefs of cooperating teachers with respect to motivation and agency in order to comprehend how these mechanisms are linked to mentorship during student teaching. Moreover, future research should explore beliefs of student agency across various career stages of SBAE teacher educators as supporting student motivation and agency is a personal process and may develop over the tenure of a career. Further, participants experienced a reflective process that prioritized and justified their actions of supporting student agency. Future

164

research should explore the reflective practices of SBAE teacher educators and delineate their in-action or on-action reflective approach. The complexities of motivation delve deeper than the findings of this study, and further research on motivation and student agency is necessary within SBAE teacher preparation programs.

Instrument development is needed to explore student agency to further understand relationships with student outcomes. Future research should explore the relationships between SBAE teacher educators' agency supporting practices and their connection to supporting students' psychological needs. Additionally, contextual influencers were specific for SBAE teacher preparation programs. Further research should purposefully sample institutions to compare contextual influencers between university structures. A variety of research methods should be employed to examine relationships between student agency and the overlap of other motivational outcomes. Self-determination theory is not the sole educational, motivational theory to support students' academic outcomes. Further exploration of overlapping practices and approaches should be explored to understand a holistic view of student agency within the realm of educational motivation. Lastly, as we seek to meet the demands of the 21st-century SBAE student, understanding how agency supportive practices can further support the need for highly motivated students is needed within the field of SBAE teacher preparation programs. Mixed methods studies should be conducted to validate themes and expand the substantive theory. Exploration of using mixed methods can offer insight to why SBAE teacher educators struggle to conceptualize the nuance of agentic engagement. Furthermore, further exploration is needed to distinguish between different types of engagement and to

understand how SBAE teacher educators conceptualize various forms of student

engagement and the relationship of supporting students basic psychological needs.

References

Azila-Gbettor, E. M., Mensah, C., Abiemo, M. K., & Bokor, M. (2021). Predicting
    student engagement from self-efficacy and autonomous motivation: A cross-
    sectional study. *Cogent Education*, *8*(1). https://doi.org/1942638.

Ball, A., Bowling, A., & Bird, W. (2016). A case study of learning, motivation, and
    performance strategies for teaching and coaching CDE teams. *Journal of
    Agricultural Education*, *57*(3), 115–128. https://doi.org/10.5032/jae.2016.03115

Ball, A., Knobloch, N. A., & Hoop, S. (2007). The instructional planning experiences of
    beginning teachers. *Journal of Agricultural Education*, *48*(2), 56–65.
    https://doi.org/10.5032/jae.2007.02056

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of
    Psychology*, *52*(1), 1–26. https://doi.org/10.1146/annurev.psych.52.1.1

Bandura, A. (2018). Toward a psychology of human agency: Pathways and reflections.
    Perspectives on Psychological Science, *13*(2), 130–136.
    https://doi.org/10.1177/1745691617699280

Bandura, A., & Cervone, D. (1986). Differential engagement of self-reactive influences
    in cognitive motivation. *Organizational Behavior and Human Decision
    Processes*, *38*(1), 92–113. https://doi.org/10.1016/0749-5978(86)90028-2

Benson, P. (2013). *Teaching and researching: Autonomy in language learning*.
    Routledge.

Berkman, E. T., & Wilson, S. M. (2021). So useful as a good theory? The practicality crisis in (social) psychological theory. *Perspectives on Psychological Science*, *16*(4), 864–874. https://doi.org/10.1177/1745691620969650

Biesta, G. (2015). What is education for? On good education, teacher judgement, and educational professionalism. *European Journal of Education*, *50*(1), 75–87. https://doi.org/10.1111/ejed.12109

Bird, W. A., Martin, M. J., & Simonsen, J. C. (2013). Student motivation for involvement in supervised agricultural experiences: An historical perspective. *Journal of Agricultural Education*, *54*(1), 31–46. https://doi.org/10.5032/jae.2013.01031

Bowling, A. M. (2017). *Conceptualizing the Process of Supporting Youths' Psychological Needs and Intrinsic Motivation Within School Based Agricultural Education Programs: A Mixed Methods Study*. University of Missouri-Columbia.

Bowling, A. M., & Ball, A. L. (2020). Supporting students' psychological needs and motivation within school based agricultural education programs: A mixed methods study. *Journal of Agricultural Education*, *61*(2), 206–221. https://doi.org/10.5032/jae.2020.02206

Bowling, A., Rice, A. H., Curry, K., & Marx, A. (2022). The essence of agricultural education teachers motivational beliefs across career stages. *Teaching and Teacher Education*, *114*, 103691. https://doi.org/10.1016/j.tate.2022.103691

Career and Technical Student Organizations. (2024, March 11). *About*. CTSOs. https://www.ctsos.org/about-us/

Cayubit, R. F. O. (2017). Effect of expressive writing on the subjective well-being of university students. *Studies in Asia, 25 (1), 60–68*.

Chaaban, Y., Al-Thani, H., & Du, X. (2021). A narrative inquiry of teacher educators' professional agency, identity renegotiations, and emotional responses amid educational disruption. *Teaching and Teacher Education*, *108*. https://doi.org/10.1016/j.tate.2021.103522

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Sage.

Christenson, S. L., Reschly, A. L., Appleton, J. J., Berman, S., Spanjers, D., & Varro, P. (2008). Best practices in fostering student engagement. In *Best practices in school psychology* (pp. 1099–1120). National Association of School Psychologists.

Cimbricz, S. (2002). State-mandated testing and teachers' beliefs and practice. *Education Policy Analysis Archives*, *10*, 2–2.

Cochran-Smith, M., Craig, C. J., Orland-Barak, L., Cole, C., & Hill-Jackson, V. (2022). Agents, Agency, and Teacher Education. In *Journal of Teacher Education* (Vol. 73, Issue 5, pp. 445–448). SAGE Publications Sage CA: Los Angeles, CA.

Cong-Lem, N. (2021). Teacher agency: A systematic review of international literature. *Issues in Educational Research*, *31*(3), 718–738.

Corbin, J. & Strauss, A. (2015). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Sage publications.

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Curriculum for Agriscience Educators. (2024). *CASE for Learning*. Curriculum for

    Agricultural Science Education. https://www.case4learning.org/

Curry, K. W. (2017). *Motivations of FFA Career Development Event Competitors and*

    Coaches. North Carolina State University.

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist*,

    26(3–4), 207–231. https://doi.org/10.1080/00461520.1991.9653133

Darling-Hammond, L. & Bransford, J. (2007). *Preparing teachers for a changing world:*

    What teachers should learn and be able to do. John Wiley & Sons.

Darling-Hammond, L. (2006). Constructing 21st-century teacher education. *Journal of*

    Teacher Education, *57*(3), 300–314. https://doi.org/10.1177/0022487105285962

Deci, E. L., Nezlek, J., & Sheinman, L. (1981). Characteristics of the rewarder and

    intrinsic motivation of the rewardee. *Journal of Personality and Social*

    Psychology, *40*(1), 1–10. https://doi.org/10.1037/0022-3514.40.1.1

Deci, E. L., & Ryan, R. M. (1985). Conceptualizations of intrinsic motivation and self-

    determination. In *Intrinsic Motivation and Self-Determination in Human Behavior*

    (pp. 11–40). Springer US. https://doi.org/10.1007/978-1-4899-2271-7_2

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and

    personality. *Psychological Review*, *95*(2), 256.

Eck, C. J., & Edwards, M. C. (2019). Teacher shortage in school-based, agricultural

    education (SBAE): A historical review. *Journal of Agricultural Education*, *60*(4),

    223–239. https://doi.org/10.5032/jae.2019.04223

Skinner, E. A., Kindermann, T. A., & Furrer, C. J. (2009). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and psychological measurement*, *69*(3), 493-525. https://doi.org/10.1177/0013164408323233

Fernet, C., Trépanier, S.-G., Austin, S., & Levesque-Côté, J. (2016). Committed, inspiring, and healthy teachers: How do school environment and motivational factors facilitate optimal functioning at career start? *Teaching and Teacher Education*, *59*, 481–491. https://doi.org/10.1016/j.tate.2016.07.019

Fitzpatrick, J., O'Grady, E., & O'Reilly, J. (2018). Promoting student agentic engagement through curriculum: Exploring the negotiated integrated curriculum initiative. *Irish Educational Studies*, *37*(4), 453–473. https://doi.org/10.1080/03323315.2018.1512882

Fredricks, J. A. (2022). The measurement of student engagement: Methodological advances and comparison of new self-report instruments. In *Handbook of research on student engagement* (pp. 597–616). Springer.

Fredricks, J. A., Filsecker, M., & Lawson, M. A. (2016). Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and Instruction*, *43*, 1–4. https://doi.org/10.1016/j.learninstruc.2016.02.002

Gass, S. M., & Mackey, A. (2016). *Stimulated Recall Methodology in Applied Linguistics and L2 Research* (2nd ed.). Routledge. https://doi.org/10.4324/9781315813349

Glas, K., Martínez-Miranda, M., & Dittmar, P. (2021). Novice teachers' developing beliefs on learner motivation: An agentic perspective. *International Journal of Educational Research*, *109*, 101820. https://doi.org/10.1016/j.ijer.2021.101820

Glaser, B., & Strauss, A. (2017). *Discovery of grounded theory: Strategies for qualitative research*. Routledge.

Gregg, C. R. (2023). *Exploring Personal Wellness of Ohio School-Based Agriscience Education Teachers: An Explanatory Mixed Method Study*. The Ohio State University.

Herrington, J., Reeves, T. C., & Oliver, R. (2014). Authentic Learning Environments. In J. M. Spector, M. D. Merrill, J. Elen, & M. J. Bishop (Eds.), *Handbook of Research on Educational Communications and Technology* (pp. 401–412). Springer. https://doi.org/10.1007/978-1-4614-3185-5_32

Holmes, K. & Preston, G. (2020). Concept of pedagogy and andragogy education. *Community Medicine and Education Journal*, *1*(1). https://doi.org/10.37275

Hudson, P. & Hudson, S. (2018). Mentoring preservice teachers: Identifying tensions and possible resolutions. *Teacher Development*, *22*(1), 16–30. https://doi.org/10.1080/13664530.2017.1298535

ICEV. (2024). *ICEV Online*. https://www.icevonline.com

Ismail, N., & Miller, G. (2021). Factors that motivate high school agriculture teachers to teach. *Journal of Agricultural Education*, *62*(1), 331–346. https://doi.org/10.5032/jae.2021.01297

Jensen, A. (2019). Fostering preservice teacher agency in 21st century writing instruction. *English Teaching: Practice & Critique*, *18*(3), 298–311.

Jimerson, S. R., Campos, E., & Greif, J. L. (2003). Toward an understanding of definitions and measures of school engagement and related terms. *The California School Psychologist*, *8*, 7–27.

Jimerson, S. R., & Chen, C. (2022). Multicultural and cross-cultural considerations in understanding student engagement in schools: Promoting the development of diverse students around the world. In *Handbook of research on student engagement* (pp. 629–646). Springer.

Kanfer, R., Frese, M., & Johnson, R. E. (2017). Motivation related to work: A century of progress. *Journal of Applied Psychology*, *102*(3), 338. http://dx.doi.org/10.1037/apl0000133

Kaplan, H., & Madjar, N. (2017). The motivational outcomes of psychological need support among pre-service teachers: multicultural and self-determination theory perspectives. *Frontiers in Education*, *2*. https://www.frontiersin.org/articles/10.3389/feduc.2017.00042

Kaur, A., & Noman, M. (2020). Investigating students' experiences of Students as Partners (SaP) for basic need fulfilment: A self-determination theory perspective. *Journal of University Teaching & Learning Practice*, *17*(1). https://doi.org/10.53761/1.17.1.8

Krathwohl, D. R. (2002). A revision of Bloom's taxonomy: An overview. *Theory into Practice*, *41*(4), 212–218. https://doi.org/10.1207/s15430421tip4104_2

Lent, R. W., & Brown, S. D. (2013). Social cognitive model of career self-management: Toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology*, *60*(4), 557. http://dx.doi.org/10.1037/a0033446

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry* (Vol. 75). Sage.

Lortie, D. C. (1975). *Schoolteacher: A sociological study*. University of Chicago press.

Maslow, A. H. (1987). *Motivation and personality (revised by Robert Frager et al.)*. London: Harper and Row.

Matos, L., Reeve, J., Herrera, D., & Claux, M. (2018). Students' agentic engagement predicts longitudinal increases in perceived autonomy-supportive teaching: The squeaky wheel gets the grease. *The Journal of Experimental Education*, *86*(4), 579–596. https://doi.org/10.1080/00220973.2018.1448746

McLennan, B., McIlveen, P., & Perera, H. (2021). A Pedagogical model of autonomy, competence and relatedness for pre-service teacher educators. *Journal of Education for Teaching*, *47*(2), 186–200. https://doi.org/10.1080/02607476.2021.1876500

Olivier, E., Archambault, I., De Clercq, M., & Galand, B. (2019). Student self-efficacy, classroom engagement, and academic achievement: Comparing three theoretical frameworks. *Journal of Youth and Adolescence*, *48*(2), 326–340. https://doi.org/10.1007/s10964-018-0952-0

Patall, E. A., Kennedy, A. A. U., Yates, N., Zambrano, J., Lee, D., & Vite, A. (2022). The relations between urban high school science students' agentic mindset, agentic engagement, and perceived teacher autonomy support and control.

Contemporary Educational Psychology, *71*, 102097.

https://doi.org/10.1016/j.cedpsych.2022.102097

Patall, E. A., Pituch, K. A., Steingut, R. R., Vasquez, A. C., Yates, N., & Kennedy, A. A. (2019). Agency and high school science students' motivation, engagement, and classroom support experiences. *Journal of Applied Developmental Psychology*, *62*, 77–92. https://doi.org/10.1016/j.appdev.2019.01.004

Patall, E. A., Steingut, R. R., Vasquez, A. C., Trimble, S. S., Pituch, K. A., & Freeman, J. L. (2018). Daily autonomy supporting or thwarting and students' motivation and engagement in the high school science classroom. *Journal of Educational Psychology*, *110*(2), 269–288. https://doi.org/10.1037/edu0000214

Patall, E. A., Vasquez, A. C., Steingut, R. R., Trimble, S. S., & Pituch, K. A. (2016). Daily interest, engagement, and autonomy support in the high school science classroom. *Contemporary Educational Psychology*, *46*, 180–194. https://doi.org/10.1016/j.cedpsych.2016.06.002

Patall, E. A., Zambrano, J., Kennedy, A. A. U., Yates, N., & Vallín, J. A. (2022). Promoting an agentic orientation: An intervention in university psychology and physical science courses. *Journal of Educational Psychology, 114*(2), 368–392. https://doi.org/10.1037/edu0000614

Patrick, H., Anderman, L. H., Bruening, P. S., & Duffin, L. C. (2011). The role of educational psychology in teacher education: Three challenges for educational psychologists. *Educational Psychologist*, *46*(2), 71–83. https://doi.org/10.1080/00461520.2011.538648

175

Perryman, J., & Calvert, G. (2020). What motivates people to teach, and why do they leave? Accountability, performativity and teacher retention. *British Journal of Educational Studies*, *68*(1), 3-23.

Priestley, M., Priestley, M. R., Biesta, G., & Robinson, S. (2015). *Teacher agency: An ecological approach*. Bloomsbury Publishing.

Ratelle, C. F., Guay, F., Vallerand, R. J., Larose, S., & Senécal, C. (2007). Autonomous, controlled, and amotivated types of academic motivation: A person-oriented analysis. *Journal of Educational Psychology*, *99*(4), 734–746. https://doi.org/10.1037/0022-0663.99.4.734

Reeve, J. (1998). Autonomy support as an interpersonal motivating style: Is it teachable? *Contemporary Educational Psychology*, *23*(3), 312–330.

Reeve, J. (2012). A Self-determination Theory Perspective on Student Engagement. In S. L. Christenson, A. L. Reschly, & C. Wylie, *Handbook of Research on Student Engagement* (pp. 149–172). Springer US. https://doi.org/10.1007/978-1-4614-2018-7_7

Reeve, J. (2013). How students create motivationally supportive learning environments for themselves: The concept of agentic engagement. *Journal of Educational Psychology*, *105*(3), 579–595. https://doi.org/10.1037/a0032690

Reeve, J. (2018). *Understanding motivation and emotion*. John Wiley & Sons.

Reeve, J., & Cheon, S. H. (2021). Autonomy-supportive teaching: Its malleability, benefits, and potential to improve educational practice. *Educational Psychologist*, *56*(1), 54–77. https://doi.org/10.1080/00461520.2020.1862657

Reeve, J., & Jang, H. (2022). Agentic engagement. In *Handbook of research on student engagement* (pp. 95–107). Springer.

Reeve, J., Jang, H.-R., Shin, S. H., Ahn, J. S., Matos, L., & Gargurevich, R. (2022). When students show some initiative: Two experiments on the benefits of greater agentic engagement. *Learning and Instruction*, *80*, 101564. https://doi.org/10.1016/j.learninstruc.2021.101564

Reeve, J., & Shin, S. H. (2020). How teachers can support students' agentic engagement. *Theory Into Practice*, *59*(2), 150–161. https://doi.org/10.1080/00405841.2019.1702451

Reeve, J., & Tseng, C.-M. (2011). Agency as a fourth aspect of students' engagement during learning activities. *Contemporary Educational Psychology*, *36*(4), 257–267. https://doi.org/10.1016/j.cedpsych.2011.05.002

Reschly, A. L., & Christenson, S. L. (2022). Jingle-jangle revisited: history and further evolution of the student engagement construct. In A. L. Reschly & S. L. Christenson (Eds.), *Handbook of Research on Student Engagement* (pp. 3–24). Springer International Publishing. https://doi.org/10.1007/978-3-031-07853-8_1

Rice, A. H., & Kitchel, T. (2015). Preservice agricultural education teachers' experiences in and anticipation of content knowledge preparation. *Journal of Agricultural Education*, *56*(3), 90–104. https://doi.org/ 10.5032/jae.2015.03090

Roberts, R., & Robinson, J. S. (2018). The motivational changes pre-service agricultural education teachers endure while facilitating quality supervised agricultural

experiences: A six-week project-based learning experience. *Journal of Agricultural Education*, *59*(1), 225–270. https://doi.org/10.5032/jae.2018.01255

Roness, D. (2011). Still motivated? The motivation for teaching during the second year in the profession. *Teaching and Teacher Education*, *27*(3), 628–638. https://doi.org/10.1016/j.tate.2010.10.016

Rosenshine, B., & Furst, N. (1971). *Research in teacher education: A symposium* (B. O. Smith, Ed.). Prentice-Hall Englewood Cliffs, NJ.

Roth, G., Assor, A., Kanat-Maymon, Y., & Kaplan, H. (2007). Autonomous motivation for teaching: How self-determined teaching may lead to self-determined learning. *Journal of Educational Psychology*, *99*(4), 761. https://psycnet.apa.org/doi/10.1037/0022-0663.99.4.761

Rule, A. C. (2006). The components of authentic learning. *Journal of Authentic Learning*, 3, 1-10.

Rushton, E. A. C., & Bird, A. (2023). Space as a lens for teacher agency: A case study of three beginning teachers in England, UK. *The Curriculum Journal*, *n/a*(n/a). https://doi.org/10.1002/curj.224

Ryan, R. M. (2023). *The oxford handbook of self-determination theory*. Oxford University Press.

Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, *25*(1), 54–67. https://doi.org/10.1006/ceps.1999.1020

Ryan, R. M., & Deci, E. L. (2000b). Self-determination theory and the facilitation of

    intrinsic motivation, social development, and well-being. *American Psychologist*,

    55(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs*

    in motivation, development, and wellness. Guilford publications.

Ryan, R. M., & Deci, E. L. (2019). Brick by brick: The origins, development, and future

    of self-determination theory. In A. J. Elliot (Ed.), *Advances in Motivation Science*

    (Vol. 6, pp. 111–156). Elsevier. https://doi.org/10.1016/bs.adms.2019.01.001

Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-

    determination theory perspective: Definitions, theory, practices, and future

    directions. *Contemporary Educational Psychology*, *61*, 101860.

    https://doi.org/10.1016/j.cedpsych.2020.101860

Ryan, R. M., Reeve, J., Kaplan, H., Matos, L., & Cheon, S. H. (2023). Education as

    flourishing: self-determination theory in schools as they are and as they might be.

    In R. M. Ryan (Ed.), *The Oxford Handbook of Self-Determination Theory* (p. 0).

    Oxford University Press.

    https://doi.org/10.1093/oxfordhb/9780197600047.013.60

Ryan, R. M., & Vansteenkiste, M. (2023a). Self-determination theory: metatheory,

    methods, and meaning. *The Oxford Handbook of Self-Determination Theory*, 0.

Ryan, R. M., & Vansteenkiste, M. (2023b). *The Oxford Handbook of Self-determination*

    Theory. Oxford University Press.

Schmidt, T. (2019). Industry currency and vocational teachers in Australia: What is the impact of contemporary policy and practice on their professional development? *Research in Post-Compulsory Education*, *24*(1), 1–19. https://doi.org/10.1080/13596748.2019.1584431

Schunk, D. H. (2012). *Social cognitive theory.* In K. R. Harris, S. Graham, T. Urdan, C. B. McCormick, G. M. Sinatra, & J. Sweller (Eds.), *APA educational psychology handbook, Vol. 1. Theories, constructs, and critical issues* (pp. 101–123). American Psychological Association. https://doi.org/10.1037/13273-005

Schunk, D. H., & DiBenedetto, M. K. (2021). Self-efficacy and human motivation. In A. J. Elliot (Ed.), *Advances in Motivation Science* (Vol. 8, pp. 153–179). Elsevier. https://doi.org/10.1016/bs.adms.2020.10.001

Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2014). Motivation in education: Theory, research, and applications. (4th ed.). Pearson new international edition.

Scott Rigby, C., Deci, E. L., Patrick, B. C., & Ryan, R. M. (1992). Beyond the intrinsic-extrinsic dichotomy: Self-determination in motivation and learning. *Motivation and Emotion*, *16*(3), 165-185. https://doi.org/10.1007/BF00991650

Sergis, S., Sampson, D. G., & Pelliccione, L. (2018). Investigating the impact of Flipped Classroom on students' learning experiences: A Self-Determination Theory approach. *Computers in Human Behavior*, *78*, 368–378. https://doi.org/10.1016/j.chb.2017.08.011

Smalley, S. W., & Rank, B. D. (2019). Preservice teacher perceptions of the role an

    agriculture teacher during their early field experience. *Journal of Agricultural*

    Education, *60*(2), 99–108. https://doi.org/10.5032/jae.2019.02099

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). *A Coming Crisis in*

    Teaching? Teacher Supply, Demand, and Shortages in the U.S. Learning Policy

    Institute. https://doi.org/10.54300/247.242

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher

    shortages: An analysis of teacher supply and demand in the United States.

    Education Policy Analysis Archives, *27*(35).

    http://dx.doi.org/10.14507/epaa.27.3696

Torres, R. M., Kitchel, T. J., & Ball, A. L. (2010). *Preparing and advancing teachers of*

    agricultural education. Curriculum Materials Service.

Trolian, T. L., & Jach, E. A. (2020). Engagement in college and university applied

    learning experiences and students' academic motivation. *Journal of Experiential*

    Education, *43*(3), 317–335. https://doi.org/10.1177/1053825920925100

Vansteenkiste, M., Lens, W., & Deci, E. L. (2006). Intrinsic versus extrinsic goal

    contents in self-determination theory: Another look at the quality of academic

    motivation. *Educational Psychologist*, *41*(1), 19–31.

    https://doi.org/10.1207/s15326985ep4101_4

Vansteenkiste, M., Ryan, R. M., & Soenens, B. (2020). Basic psychological need theory:

    Advancements, critical themes, and future directions. *Motivation and Emotion*,

    44(1), 1–31. https://doi.org/10.1007/s11031-019-09818-1

Vansteenkiste, M., Simons, J., Lens, W., Soenens, B., & Matos, L. (2005). Examining the motivational impact of intrinsic versus extrinsic goal framing and autonomy-supportive versus internally controlling communication style on early adolescents' academic achievement. *Child Development*, *76*(2), 483–501. https://doi.org/10.1111/j.1467-8624.2005.00858.x

Vermeulen, M., Castelijns, J., Kools, Q., & Koster, B. (2012). Measuring student teachers' basic psychological needs. *Journal of Education for Teaching*, *38*(4), 453–467. https://doi.org/10.1080/02607476.2012.688556

Wahba, M. A., & Bridwell, L. G. (1976). Maslow reconsidered: A review of research on the need hierarchy theory. *Organizational Behavior and Human Performance*, *15*(2), 212–240. https://doi.org/10.1016/0030-5073(76)90038-6

Weiner, B. (1972). Attribution theory, achievement motivation, and the educational process. *Review of educational research, 42*(2), 203-215.

Wigfield, A. (1994). Expectancy-value theory of achievement motivation: A developmental perspective. *Educational Psychology Review*, *6*(1), 49–78. https://doi.org/10.1007/BF02209024

Wigfield, A., & Eccles, J. S. (2000). Expectancy–value theory of achievement motivation. *Contemporary Educational Psychology*, *25*(1), 68–81. https://doi.org/10.1006/ceps.1999.1015

Wigfield, A., & Eccles, J. S. (2024). The relevance of situated expectancy-value theory to understanding motivation and emotion in different contexts. In *Motivation and*

Emotion in Learning and Teaching across Educational Contexts (pp. 3–18).

Routledge.

Wong, Z. Y., & Liem, G. A. D. (2022). Student engagement: current state of the

construct, conceptual refinement, and future research directions. *Educational*

Psychology Review, *34*(1), 107–138. https://doi.org/10.1007/s10648-021-09628-3

Wooditch, A. M., Rice, A. H., & Peake, J. B. (2018). The Development of preservice

agriculture teachers' pedagogical content knowledge through a greenhouse for

teachers course. *Journal of Agricultural Education*, *59*(3), 1–14.

https://doi.org/10.5032/jae.2018.03001

Zambrano, J., Kennedy, A. A. U., Aguilera, C., Yates, N., & Patall, E. A. (2022).

Students' beliefs about agentic engagement: A phenomenological study in urban

high school physical science and engineering classes. *Journal of Educational*

Psychology, *114*(5), 1028–1047. https://doi.org/10.1037/edu0000690

Zambrano, J., Patall, E. A., Kennedy, A. A. U., Aguilera, C., & Yates, N. (2023).

Qualitative study of urban high school teachers' beliefs about students' agentic

engagement. *The Journal of Experimental Education*, *0*(0), 1–22.

https://doi.org/10.1080/00220973.2023.2238632

Appendix A. Recruitment Emails

Initial Recruitment Email
Subject: You are invited! Study exploring your beliefs on student motivation and engagement

Dear AAAE Members,

We are seeking Teacher Educators who want to participate in a study exploring student motivation and engagement within Agriculture Teacher Preparation Programs. This grounded theory study aims to conceptualize the process of supporting student motivation and engagement from the perspective of Agriculture Teacher Educators. Through this study, we hope to better understand how to autonomously engage preservice teachers by supporting students' motivational needs.

The research will take place over the course of November 2023 to April 2024. The following data sources will be collected from participants:
1. Initial Interview: Recorded interview via Zoom lasting 60 minutes
2. Classroom Observation: Recorded observation via Zoom
3. Program Artifact: Public-facing artifacts provided by participant
4. Journal reflections: Completed via Qualtrics after classroom observation and student teaching visit
5. Post-observation Interview: Recorded interview via Zoom lasting 60 minutes

If you are interested in participating in the research study, please complete an interest questionnaire which can be accessed via Qualtrics using the link below.

[Insert Qualtrics Link]

Your participation is voluntary. Participation in this study will involve no risk beyond what you would experience in everyday life. You may choose not to participate in this study without penalty or loss of benefits to which you are otherwise entitled.

If you have questions, suggestions, concerns, or complaints about the study, you can contact the principal investigator, Hannah Parker, at [email] or [phone number] (c) or advisor, Dr. Amanda Bowling, at [email] or [phone number] (w). If you have questions about your rights as a volunteer in this research, contact the Office of Responsible Research Practices staff at The Ohio State University, at (614) 688-8457.

We thank you for your time and consideration!

Hannah Parker & Dr. Amanda Bowling

Reminder Email
Subject: You are invited! Study exploring student motivation and engagement

Dear AAAE Members,

We are still looking for volunteers!

We are seeking Teacher Educators who want to participate in our study exploring student motivation and engagement within Agriculture Teacher Preparation Programs. This grounded theory study aims to conceptualize the process of supporting student motivation and engagement from the perspective of Agriculture Teacher Educators. Through this study, we hope to better understand how to autonomously engage preservice teachers by supporting students' motivational needs.

The research will take place over the course of November 2023 to April 2024. The following data sources will be collected from participants:
> 1. Initial Interview: Recorded interview via Zoom lasting 60 minutes
> 2. Classroom Observation: Recorded observation via Zoom
> 3. Program Artifact: Public-facing artifacts provided by participant
> 4. Journal reflections: Completed via Qualtrics after classroom observation and student teaching visit
> 5. Post-observation Interview: Recorded interview via Zoom lasting 60 minutes

If you are interested in participating in the research study, please complete the interest survey which can be accessed via Qualtrics using the link below.

[Insert Qualtrics Link]

Your participation is voluntary. Participation in this study will involve no penalty or loss of benefits as you would experience in everyday life. You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled.

If you have questions, suggestions, concerns, or complaints about the study, you can contact the principal investigator, Hannah Parker, at [email] or [phone] (c) or advisor, Dr. Amanda Bowling, at [email] or [phone] (w). If you have questions about your rights as a volunteer in this research, contact the Office of Responsible Research Practices staff at The Ohio State University, at (614) 688-8457.

We thank you for your time and consideration!

Hannah Parker & Dr. Amanda Bowling

Participant Selection Email
Subject: You've been selected to participate in student motivation and engagement study

Dear [Participant],

Thank you for volunteering to participate in this research study exploring student motivation and engagement within Agriculture Teacher Preparation Programs. This grounded theory study aims to conceptualize the process of supporting student motivation and engagement from the perspective of Agriculture Teacher Educators. This email will provide you with information about the informed consent process and how to schedule your initial interview.

First, review the attached document titled "Informed Consent." If you have questions about the informed consent document, please let me know prior to the initial interview. You will provide verbal consent during the initial interview to participate in this study.

Second, below is my availability for the next three weeks. The initial interview will be scheduled for 60 minutes. Please respond to Hannah at [email] with three preferred times that work with your schedule. If the below availability does not work with your schedule, please send me your availability and I will work around my schedule. Once we have selected a time, I will send a Zoom Link and meeting invitation via Outlook.

{Insert schedule availability}

Your participation is voluntary. Participation in this study will involve no penalty or loss of benefits as you would experience in everyday life. You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled.

If you have questions, suggestions, concerns, or complaints about the study, you can contact the principal investigator, Hannah Parker, [email] or [phone] (c) or advisor, Dr. Amanda Bowling, [email] or [phone] (w). If you have questions about your rights as a volunteer in this research, contact the Office of Responsible Research Practices staff at The Ohio State University, at (614) 688-8457.

We thank you for your time!

Hannah Parker & Dr. Amanda Bowling

Appendix B. Participant Interest Questionnaire

1. Full name
2. Email address
3. The institution you are currently employed by:
4. What is your current faculty rank?
   a. Assistant Professor
   b. Assistant Professor of Professional Practice
   c. Visiting Assistant Professor
   d. Associate Professor
   e. Associate Professor of Professional Practice
   f. Full Professor
   g. Full Professor of Professional Practice
   h. Instructor
5. How long have you been employed at this institution?
6. Do you teach a course required for preservice teachers to take for licensure?
7. Which semester(s) are you supervising at least one student teacher?
   a. Autumn 2023
   b. Spring 2024
8. Do you regularly engage in decision-making for the teacher preparation program?
9. Are you the agricultural education program coordinator at your institution?
10. Do you have access to Zoom for a classroom observation?
11. Select your gender:
    a. Male
    b. Female
    c. Non-binary
    d. Transgender man
    e. Transgender female
    f. Prefer not to answer

Appendix C. Verbal Script Obtaining Informed Consent

"Hello, my name is Hannah Parker. I am a Ph.D. student at The Ohio State University in the Department of Agricultural Communication, Education, and Leadership. Myself, and my advisor, Dr. Amanda Bowling, are exploring Agriculture Education Teacher Educators' engagement and student motivation beliefs.

The information you share with me will help us inform our profession on how teacher educators support and prepare preservice teachers through the lens of motivation and explore how teacher educators conceptualize student engagement within a teacher preparation program. This grounded study seeks to create a substantive theory conceptualizing Agriculture Teacher Educators' student engagement and motivation beliefs.

This interview will take about 60 minutes of your time if you choose to participate. During the interview, I will ask you about your beliefs regarding student engagement and motivation in the context of teacher preparation programs.

Additional data collection will include a classroom observation via Zoom, submission of program artifacts, competition of at least two journal reflections, and a post-observation interview.

There is a small risk of a breach of confidentiality, but all efforts will be made to keep your identity in the strictest confidentiality. We will use participant codes to identify the data associated with you. We will use pseudonyms in all of our publications.

Your de-identified information will not be used or shared with other researchers outside of the identified research team. We will work to make sure that no one sees your Zoom responses without approval. But, because we are using the Internet, there is a chance that someone could access your online responses without permission. In some cases, this information could be used to identify you. Please keep this in mind when choosing what to share in the Zoom setting.

There are no other expected risks of participation.

Participation is voluntary. If you decide not to participate, there will be no penalty or loss of benefits to which you are otherwise entitled. You can, of course, decline to consent to the research, as well as to stop participating at any time, without any penalty or loss of benefits to which you are otherwise entitled.

If you have any additional questions concerning this research or your participation in it, please feel free to contact me, other members of the research team, or our university research office at any time."

(The respondent will be given an information card, when applicable, containing name, institutional affiliation, and contact information.)

"I would like to make a video and audio recording of our discussion, so that we can have an accurate record of the information that you provide to me. I will transcribe that recording by hand, and will keep the transcripts confidential and securely in my possession.

Do you have any questions about this research?" If you would like to consent to participate in the research interview please say "I consent".

Let's begin…."

Appendix D. Initial Interview Protocol

1. Can you tell me about [University or Department] teacher preparation program?
2. Describe the decision-making process among the agriculture teacher educator faculty.
3. Do you believe students should have choices in their teacher preparation program?
4. Where can students make choices within teacher preparation program?
5. Where can students make choices in the licensure process?
6. Where and how can students provide specific feedback and/or information that influences programmatic decisions?
7. What do you believe your purpose is as an agriculture teacher educator?
8. What do you believe your purpose is in motivating students?
   a. Probe: How do you know when students are motivated?
   b. Probe: How do you know when students are not motivated?
9. Where do you think your beliefs of motivation come from?
10. Do you believe students can change their motivation with the way they engage in class?
    a. Probe: Placement experiences? (Early field, student teachings, etc.), student teaching visits?
11. Students engage in a variety of ways. Students may provide feedback to the instructor about a topic they wish to learn about (agentic). Can you think of an example of how students engage in the teacher preparation program?
    a. Probe: Classroom engagement, Placement engagement, Student teaching mentorship engagement
12. Are you happy with how students engage?
    a. Probe: How would you want students to approach how they engage in the program?
13. How have you observed student-directed engagement in the teacher preparation program?
14. (Go here if they see AE in Q. 13) As an [instructor, coordinator, or university supervisor], what do you say or do to support student-directed engagement?
a. What do you say or do when students struggle to engage or are unmotivated to engage?
b. (Go here if they do not see AE in Q. 13) Do you want to see it? If so, how do you think you could support student directed engagement?
15. [Select on question that fits with participant answers based on their beliefs]
    a. With what you are telling me about your motivational beliefs, I want to bring it back to a question I asked earlier on. Do you believe students should be allowed the opportunity to express choice and structure of their teacher preparation program?
    b. *OR* What role does the structure of the program and pre-determined requirements play in student motivation?

Appendix E. Classroom Observation Journal Reflection Questions

1. Describe the content, activities, lesson objective, etc, of the observed classroom lesson.
2. How did you anticipate students to engage based on how you planned for the lesson?
3. What are your expectations of student engagement during this classroom lesson?
4. Describe how students ACTUALLY engaged during this lesson.
5. What did you say or do to encourage students to increase their interest during this lesson?
6. During this specific lesson, how did you know when students were motivated?
7. During this specific lesson, how did you know when students were NOT motivated?
8. How did student motivation influence engagement during the lesson?
9. What examples of student directed engagement did you observe?
10. During this specific lesson, how do your beliefs of student motivation and engagement support student learning outcomes?

Appendix F. Student Teacher Observation Journal Reflection Questions

1. What was your responsibility as a teacher educator during this specific student teacher observation?
2. What was your responsibility as a teacher educator during this specific student teacher observation?
3. What are your expectations of how student teachers engage during student teaching? How do these expectations differ from expectations set in the student teacher handbook?
4. Rank this student teachers motivation. (1-6)
5. Why did you rank this teachers motivation in the way you did?
6. What did you say or do to understand how the student teacher was motivated?
7. Rank this student teachers engagement at their practicum site. (1-6)
8. Why did you rank this teachers engagement in the way you did?
9. What did you say or do to understand how the student teacher has been engaged at their practicum site?
10. What examples of student directed engagement did you observe? "Student directed" means how the student teacher initiates how they engaged.

Appendix G. Post Teaching Interview Questions

1. I want to begin with a stimulated recall. (Video clip, slide deck, journal reflection)
   a. Questions specific to stimulated recall.
2. What role does course structure play in motivating and engaging students?
   a. Probe: Can you share specific examples of what structure you have within your class or within the teacher preparation program?
3. You used [strategy] as a teaching strategy, how did you observe student motivation and engagement because of the strategy you use?
4. How do you engage students during lecture?
5. How do you motivate students during lecture?
6. Why do students feel comfortable asking questions?
   a. Probe: Is this similar or different in why they feel comfortable answering questions?
   b. Probe: Why do some students not feel comfortable?
7. When you have "crickets" what are strategies you use to motivate students to engage?
8. Can students engage in course content beyond being inquisitive or answering questions? If so, what are some examples of students engaging beyond questioning.
9. One of the pieces I am looking at is teacher educators' beliefs and how you enact your beliefs. What barriers do you face and experience when enacting your beliefs of student motivation and engagement?

Define student agency and agentic engagement.

1. Do you believe students engage agentically in the courses you teach? If so, how have you observed this interaction?
2. How do students agentially engage outside of the classroom?
3. What barriers exist that prevent agentic engagement from occurring?
4. Do you believe students can act as agents in your class?
5. Thinking about your beliefs of motivation and engagement, how do you allow students to agentically engage in courses?

Appendix H. Alignment to Research Questions, Themes, Sub-Themes, and Categories

Alignment with Research Questions	Theme	Sub-Theme	Category
RQ 1	Beliefs of Student Agency	Central Belief: Students Innate Desire to Teach SBAE	
		Students are Unique with Their Own Interests	
		Student's Self-Efficacy Contributions to Agency	
		Students Recognizing Their Own Growth	
		Summary: Beliefs of Student Agency and the Connection to the Substantive Theory	
RQ 1 & RQ 2	Agency Supporting Practices	Central Practice: Providing Space for Students to Act on Agency	
		Clearly Communicate Course Structure	Course Flexibility
			Building in Reflection
		Transparency	
		Summary: Clearly Communicated Course Structure	
		Connect Students Interests to Real-World Application	
		Build Relationship with Students	
		Foster Cohort/Peer Support Formation	
		Positive and Encouraging Feedback	
		Summary: Agency Supporting Practices and the Connection to the Substantive Theory	
RQ 2	Contextual Influencers of SBAE Teacher Preparation Program	Licensure Requirements	
		University Constraints	

		The Complex, Bound Idea of School-Based Agricultural Education	
		Summary: Contextual Influencers of SBAE Program Structure and the Connection to the Substantive Theory	
RQ 2	Prioritization and Justification of Beliefs	Prioritization of Beliefs	Foundational Belief of Teaching and Learning Rooted in Literature
			Belief of Purpose of a SBAE Teacher Educator
		Ownership of Beliefs	
		Fear of Losing of Control	
		Summary: Prioritization and Justification of Beliefs and the Connections to the Substantive Theory	
RQ 2	Approaches to Connect Motivational Beliefs to Practices	Beliefs of Student Agency to Agency Supporting Practices: Responsive Approach	Responsive Approach: Lincoln and Team-Based Learning
		Motivational Beliefs to Contextual Influencers of SBAE Programs: Contextually Reflexive Approach	Contextual Reflective Approach Example: Orlando and the Contextual Bounds of SBAE
		Beliefs of Student Agency to Prioritization and Justification of Beliefs: Reflective Approach	Reflective Approach Example: Jordon and Teaching is a Science and an Art

		Summary: Approaches to Connect Motivational Beliefs to Practices and the Connection to Substantive Theory	
	Substantive Theory		