

The Failures that Made Us: A Narrative Inquiry Study of Student Teachers' Reflections on Failure

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Abstract

Our study investigated the role of failure during the school-based agricultural education (SBAE) student teaching experience. Using narrative inquiry, we analyzed the reflections of twelve SBAE teachers to uncover their moments of failure, how they reconciled those failures, and the lasting impact of these experiences. Our findings highlighted a key need, encompassing balanced mentoring and intentional reflection during the student teaching experience and teacher preparation programs, as we found preservice teachers benefited most from environments that embraced and supported failure, provided autonomy, and encouraged constructive reflection. These insights suggested practical reforms to equip preservice teachers for the complexities of their future classrooms.

Introduction

The student teaching experience is often romanticized as the ultimate proving ground for preservice teachers (Goldhaber et al., 2017; Kasperbauer & Roberts, 2007; Smith & Rayfield, 2017; Sweet Moore et al., 2023; White, 1989), presenting several obstacles for these future teachers to learn from (Caires et al., 2010; Kelchtermans & Ballet, 2002; Korte & Simonsen, 2018). However, a deeper look reveals a harsher reality: experiencing failure is inevitable. Yet, preservice teachers remain unprepared for and shocked by these failures in their student teaching experience (Danyluk et al., 2021), a significant problem because the quality of a student teaching experience has been linked to entering the teaching profession (Stewart et al., 2017). Thus, to truly prepare student teachers for the complexities of the classroom, we must acknowledge and address inevitable failures by exposing preservice teachers to critical experiences to transform their setbacks into opportunities for growth and learning.

Preservice teachers balance expectations with the unpredictability of real-world classrooms, while applying content knowledge and educational theory during the student teaching experience (Knowles & Hoeffler, 1989; Miller & Wilson, 2010), many times unsuccessfully (Harwood et al., 2000; Lutovac & Flores, 2021). Though preservice teachers spend this “capstone experience” under the guidance and wings of their cooperating teacher (Brown et al., 2015, p. 80), they are highly likely to encounter significant failures (Danyluk et al., 2015; Harwood et al., 2000; Iannoccone, 1963; Knowles et al., 1995). Considering the subjective nature of failure (Fwu et al., 2018), we grounded our definition of failure to what participants perceived as breakdowns between expectations and outcomes of their student teaching experience. These

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challenges can lead to feelings of inadequacy and self-doubt, potentially impacting preservice teachers' motivation to enter the profession (Dumas, 1969; Schmidt & Knowles, 1995). The emotional toll of these failure experiences also contributes to stress, anxiety, and even a sense of isolation (Bowling et al., 2024; Sudzina & Knowles, 1993). If left unaddressed, these emotions not only increase the likelihood of leaving the profession prematurely but also hinder the development of personal resilience (Pang, 2023), an essential quality for sustaining a teaching career (Gu & Day, 2007; Le Cornu, 2013; Mansfield et al., 2012, 2016; Tait, 2008; Thieman et al., 2014). This underscores the need to support resilience as critical for navigating future failures among teachers (Carver-Thomas & Darling-Hammond, 2017). Therefore, teacher educators must understand how preservice teachers navigate and learn from failure to develop effective support systems and interventions during the student teaching experience, promoting teacher resilience and preparing preservice teachers for future failures.

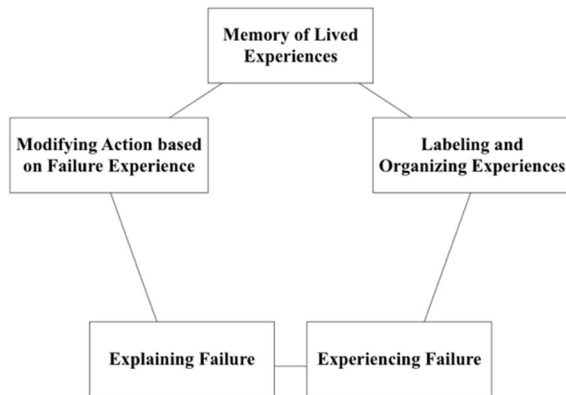
Our narrative inquiry into the lived experiences of former school-based agricultural education (SBAE) student teachers was essential to understanding the impacts of failure on preservice teacher development. This population offered a unique lens as they told their stories of navigating the complex demands of student teaching amid moments of challenge and failure, which made them an ideal group for advancing our knowledge of how failure contributes to preservice teacher development. We sought to uncover these moments of failure, exploring how our participants experienced and reconciled with failure and how their experiences impacted their growth and development as current SBAE teachers. In doing so, we deepened our understanding of how preservice teachers navigate failure and contributed to addressing the national teacher shortage by informing efforts and practices to support student teachers amid failure.

Paradigm and Assumptions

Our perspectives and experiences as former SBAE teachers and current teacher educators informed our study by providing context for our participants' stories. Having student taught, we entered our study with firsthand experience of preservice teachers' challenges and failures and an understanding of teacher preparation. We leaned on our background and experiences to ensure reflexivity and position our pursuit of this study personally, there were also practical implications for understanding failure in the student teaching experience (Clandinin, 2013). Before our work began, we engaged in narrative inquiry with the belief all stories are first lived, then told, later retold, and finally relived, a stance assuming and valuing the depth of all personal experiences and realities (Clandinin & Connelly, 1998; Clandinin, 2013).

We directed our beliefs and assumptions about human experience and its transference using Schank's (1999) Failure-Driven Memory Theory (Figure 1). A former computer scientist turned learning scientist, he theorized "the root of our ability to learn" is lived experience, specifically experiences in which individuals fail (Schank, 1999, p. 42). His proposed process invoked (a) memory, defined as a recollection of past experiences; (b) labeling, the action of cataloging past experiences; (c) failure, making mistakes or incorrect decisions; (d) explanation, which encompasses reflection to determine why failures occurred; and (e) modification, adjusting behavior based on past experiences (Schank, 1999; Tawfik et al., 2015). Our application of Failure-Driven Memory Theory relied on the principle of dynamic memory, which states learning is the constant transaction of present observations with knowledge from prior experiences. As this exchange occurs, previously established scripts are further entrenched or uprooted, all in the direction of driving memory. We approached Failure-Driven Memory Theory inductively by allowing our participants' narratives to reveal how the theory's elements emerged organically through their stories of experiencing, processing, and learning from failure.

Figure 1

Failure-Driven Memory Theory**Purpose and Research Questions**

Our narrative inquiry study told the story of failure during the SBAE student teaching experience through the lived experiences of twelve former SBAE student teachers. We asked our participants to identify a specific moment of failure from their experience and used a series of interviews to understand how they reconciled through reflection. Four research questions guided our study:

1. What are the moments of failure perceived by former SBAE student teachers during their student teaching experience?
2. How did former SBAE student teachers navigate and reconcile with failure during their student teaching experience?
3. How do current SBAE in-service teachers perceive the impact of past failures on their personal and professional development?
4. How do current SBAE in-service teachers interpret the significance of student teaching experience failures in their teaching journey?

Literature Review

A common element across teacher preparation programs and their various content areas is the student teaching experience. Though this component of teacher preparation programs may vary in time length and structure (Price et al., 2023; Retallick & Miller, 2010; Ronfeldt & Reininger, 2012) and labeled different names, such as practicum (Kakazu & Kobayashi, 2023) or internship (Greve et al., 2020), the fact remains: the valuable experience and knowledge gained during this time far outweigh any other aspect of preservice teacher coursework (Brown et al., 2015), leaving lasting impressions because failure experiences trigger deep reflections and facilitate transferable lessons (Schank, 1999).

As posited by many (Allen, 2003; Plourde, 2002; Wilson & Floden, 2002; Wilson et al., 2001), student teaching facilitates authentic challenges and realities of teaching not replicated within the confines of university classrooms. Knowles and Hoefler (1989) emphasized student teaching is often the first opportunity for preservice teachers to apply their coursework, so the likelihood of encountering challenges and failures is high. These challenges serve as significant sources of anxiety, frustration, and stress (Parker et al., 2024; Sadler, 2006), leading preservice teachers to realize a disconnect between idealistic and pragmatic perspectives, a phenomenon referred to as *praxis shock* (Kelchtermans & Ballet, 2002). These experiences are evidence of a gap between theory and practice, whereby preservice teachers struggle to

apply theoretical knowledge in real-world settings, resulting in internal dilemmas and tensions (Ding & Wang, 2018; Tigchelaar & Krothagen, 2004). This gap is further exacerbated by student teachers' difficulties with knowledge transfer and metacognition (Bowling et al., 2024), where stress from external factors often inhibits effective planning and application of learned concepts. These persistent challenges test preservice teachers' resilience as they adapt their strategies under pressure and develop coping mechanisms to manage stress (Squires et al., 2022). Additional struggles include personal and contextual difficulties (Schmidt & Knowles, 1995), such as feelings of being overwhelmed (Moos & Pitton, 2014) and navigating diverse classroom settings or unfamiliar school environments (Cumming, 1971; Thomas, 2006). Moreover, student teachers grapple with challenges in areas of "time management, institutional and job complexity, unengaged cooperating teachers, university requirements, and special-needs students" (Sadler, 2006, p. 224). Classroom management and poor teaching methods are common breakdowns among student teachers (Rickman & Hollowell, 1981). As preservice teachers confront these challenges, their ability to think critically about classroom decisions and identify growth opportunities becomes an essential aspect of thriving in the classroom (Beltman et al., 2011; Castro et al., 2010; Gu & Day, 2007; Malloy & Allen, 2007). These challenges often serve as precursors to perceived failures, as how preservice teachers handle initial challenges dictates whether the experience results in failure or growth (Lutovac & Flores, 2021).

The support, or sometimes lack thereof, student teachers receive from their cooperating teachers often influences these struggles. Cuenca (2011) noted cooperating teachers facilitate *tethered learning*, a process by which they provide a safety net for student teachers as they learn to teach. While offering feedback, guidance, and support, cooperating teachers allow preservice teachers to experience challenges and failures typical of teaching in safe and controlled environments. This strategy can be associated with *productive failure*, learning through failed attempts to enhance understanding (Kapur, 2015), and *negative knowledge*, learning how not to complete a task (Gartmeier et al., 2008, 2010), in that experiencing these challenges without immediate support allows the preservice teacher to learn how not to do something, therefore "preparing them to learn better from the subsequent instruction" (Kapur, 2015, p. 52). However, preservice and cooperating teachers' expectations must align for this supportive process to be effective, as ongoing struggles and unresolved failures will likely persist without alignment (Sudzina et al., 1997).

Understanding Failure

Researchers define failure in myriad terms, mainly depending on the context of its application. Our study defined failure as the moment when an individual does not meet a goal defined by themselves and/or others, suggesting failure is subjective (Lutovac, 2019, 2020; Simpson et al., 2023). This means each of us interprets failure differently, and for our failures to become meaningful, we require opportunities to process failure and, equally as important, calibrate it. Collier (1999) supported this view, noting student teachers' perceptions and reflections on failure are distinct as each interprets and constructs their reality uniquely. These definitions align with the perspective of Failure-Driven Memory Theory (Schank, 1999), which expands the definition of failure from a missed outcome to a core learning experience, leading to memorable reflection and meaning-making. Given our grounding in a constructivist epistemology, we operationalized failure by assuming each preservice teacher constructs their meaning of failure through personal experiences (Dewey, 1933, 1938; Piaget, 1952; Schön, 1987).

Recognizing perceptions of failure are subjective and shaped by both self-assessment and external evaluations, we considered how failure experiences could either hinder or foster resilience. For some, failure becomes a profoundly personal experience reinforcing feelings of deficiency and inadequacy (Simpson et al., 2023). These individuals tend to exhibit constrained views of their ability and intelligence (i.e., *fixed mindset*, Dweck, 2006). However, when preservice teachers adopt positive perspectives on failure (i.e., *growth mindset*, Dweck, 1999), they are more likely to reframe setbacks as opportunities for learning and growth (Phoenix & Haddad, 2024). Therefore, understanding how preservice teachers process failure is essential because it directly informs how they develop resilience using mechanisms such as

mindset shifts and emotional regulation, which prompt them to adapt and grow in the face of failure (Bowles & Arnup, 2016; Ding & Wang, 2018; Drew & Sosnowski, 2019).

Learning from Failure

An abundance of research dissected and examined failure learning, amassing a plethora of theories on the subject, all supporting failure as an essential component of the learning process (Tawfik et al., 2015). While varying in perspective, all share a common understanding: failure exposes a gap in knowledge or skill that, when properly addressed, can lead to learning and growth (Stroud Stasel & Evans, 2023). This process hinges on the ability to identify and confront these gaps and indicates we must practice reflection and targeted strategies to address them. Otherwise, our failure risks becoming a barrier rather than a gateway to our growth (Cannon & Edmondson, 2005).

Reflecting on Failure

No different in the context of teaching, reflection is a fundamental tool for teachers to learn from failure, also facilitating student learning (University of Alabama, 1994). Reflection is a common strand among the various perspectives of failure learning and viewed as a key step to reorganizing and revising one's understanding through self-explanation (Schank, 1999), signifying the act of reflection as an integral step toward learning from failure (DiMenichi & Richmond, 2015; Ellis et al., 2014; Laksov & McGrath, 2020; Pinsky & Irby, 1997; Stroud Stasel & Evans, 2023; Wang et al., 2023). Although failure provides the raw material for learning, it is through reflection individuals begin to process their experiences, adapt, and grow. Reflective exercises such as structured journaling, peer discussions, and formal feedback sessions have all been noted as strategies for preservice and in-service teachers alike to analyze their failures (Collier, 1999; Cuenca, 2011; Dumas, 1969; Knowles & Hoefler, 1989; Parker et al., 2024). As Collier (1999) applied Pultorak's (1993, 1996) levels of reflective thought (*technical rationality*, *practical action*, and *critical action*), she found student teachers reflected in a hierarchical manner, similar to previous research findings (Schön, 1983; 1987; Surbeck et al., 1991), but most importantly, she found opportunities to reflect led to greater self-awareness. Also, through reflection, preservice teachers develop resilience as they learn to adapt and approach future challenges more confidently (Crane et al., 2019). Pinsky and Irby (1997) found reflection among medical educators facilitated failure learning and discovered reflection occurred at various phases of teaching (*planning and anticipatory reflection*, *teaching and reflection-in-action*, and *reflection-on-action*). These reflective practices lay the foundation for the next step in failure learning: reconciliation, where preservice teachers come to terms with their failures and transform them into actionable steps for future improvement.

Reconciling Failure

Reconciliation draws upon the experiences, lessons, and feedback reflected upon to determine the best path forward to drive personal and professional growth and identity development. The available support systems deeply influence preservice teachers' ability to work through failure (Hollins & Guzman, 2005). One prominent support system is the cooperating teacher, whose method of tethered learning positively influences this process. Through tethered learning, a cooperating teacher allows the student teacher to experience failure in a controlled and supportive environment (Cuenca, 2011). This approach to support encourages preservice teachers to take instructional risks and make mistakes, knowing their mentors will provide feedback and support them in dire circumstances (Izadinia, 2016; Rajuan et al., 2007). In doing so, cooperating teachers fill gaps missed by teacher preparation programs, such as the authentic, day-to-day challenges of teaching that cannot be fully replicated in on-campus coursework. By providing a forgiving space to fail and learn, cooperating teachers bridge the divide between theoretical preparation and the harsh, unpredictable realities of the classroom.

In addition to cooperating teachers, the broader support system available to preservice teachers—comprising university supervisors, peers, and additional in-service teachers—contributes to the reconciliation process. Internal and external dilemmas are part of this process (Ding & Wang, 2018). In these situations, university supervisors and peers often serve as sounding boards, helping student teachers articulate and digest their struggles (Bowling et al., 2024; Danyluk et al., 2015; Harwood et al., 2000). Conversations with members of these support systems foster a more profound understanding of challenges, empowering preservice teachers to refine their approaches and strategies as they reconcile their failures. Moreover, the emotional support provided is crucial to developing resilience. Since preservice teachers regularly encounter self-doubt and lack of confidence (Sudzina & Knowles, 1993), emotionally encouraging and supportive systems help them minimize or cope with their feelings of inadequacy (Rohrkemper & Corno, 1988). This combination of emotional and professional support allows preservice teachers to move beyond simply recovering from failure—it helps them internalize their experiences, forming a more resilient, adaptable, and self-aware teacher identity. In line with Failure-Driven Memory Theory, these reflective moments create lasting memories and shape the navigation of future failures (Schank, 1999).

In sum, failure in the student teaching experience is a complex process requiring reflection, reconciliation, and the support of mentors and peers to learn and grow from it. Cooperating teachers and other support systems are vital in helping preservice teachers cope with failures, foster resilience, and shape their emerging professional identities. Through these failures and support systems, preservice teachers learn to adapt, refine their teaching practices, and become confident and capable educators. Our study explored how our participants used support to navigate and reconcile their failures and how these moments contributed to their professional and personal development as SBAE teachers. This research was crucial as it established actionable insights for developing more effective support mechanisms, self-efficacy, and identity development of future teachers so they may better manage the complexities of the teaching profession (i.e., resilience). By employing a narrative inquiry approach, we sought to capture the stories of former SBAE student teachers, uncovering the moments of failure they experienced and how they were pivotal to their growth and resilience.

Methods

We employed narrative inquiry methods to study early career teachers' experiences with failure during their student teaching. Through the telling and re-telling of their stories, these experiences contributed to the landscape of knowledge in teacher education (Clandinin & Connelly, 2000; Craig, 2007). This qualitative research method helped us make sense of failure in the context of the student teaching experience. As we listened to our participants share their stories, we sought to understand their unique realities as they faced, worked through, and grew from failure (Mitchell, 1981).

Participant Selection

The population of interest for our study was former SBAE student teachers currently teaching SBAE in Nebraska. Our sample included recent (i.e., within two years) SBAE student teachers. We selected this population and sample because these individuals could contribute “information-rich” insights on failure (Patton, 2015, p. 53). We used purposeful sampling (Reissman, 2008) to engage participants who (a) were past graduates of the University of Nebraska-Lincoln's SBAE teacher preparation program, (b) completed and passed their student teaching experience, and (c) indicated familiarity with a specific failure during their student teaching experience. These requirements aligned with our purpose and research questions to establish participants as competent and experienced individuals able to contribute to our study (Chein, 1981; Merriam & Tisdell, 2016). Additionally, convenience sampling served as an added layer of our sampling procedure because we knew eligible participants would be close and accessible to us in June 2024 as they attended the Nebraska Career Education Conference (Creswell & Guetterman, 2019). By attending this

conference, we had access to interview each participant in person to establish rapport, respect, and trust (Seidman, 2019).

Upon purposeful and convenience sampling, our sample comprised twelve current Nebraska SBAE teachers who graduated from our teacher preparation program and completed their student teaching practicum within the last two years. Eight participants had two years of teaching experience and the remaining four had one year of teaching experience. We selected these participants because of their diverse backgrounds and student teaching experiences. By doing this, we ensured coherence as converging themes about failure across different contexts were revealed (Carr, 1986; Clandinin, 2013; Reissman, 2008). We de-identified each participant by assigning a pseudonym (Brear, 2018).

Data Collection and Analysis

We collected initial demographic data and consent using an online Qualtrics survey. Following demographic data collection, we conducted semi-structured interviews in three stages (Merriam & Tisdell, 2016). Each stage coincided with one to two of our research questions to achieve the purpose of our research study. Pre-established interview guides (Appendices A, B, and C) directed these interviews, consisting of two to three open-ended questions to encourage participants to share stories without constraints as we listened (Merriam & Tisdell, 2016). We opted for three interviews to allow participants to revisit their input and insights, expand on what they previously shared, and provide rich context (Reissman, 2008; Seidman, 2019), which is not always possible with single interviews, especially regarding context (Locke et al., 2004). These three-stage interviews supported our exploration of each “participant’s experience, place it in context, and reflect on its meaning” (Seidman, 2019, p. 21).

Narrative Construction and Deconstruction

We began constructing the narratives from the interviews using both inside and outside perspectives to make sense of individuals’ lived experiences (Merriam & Tisdell, 2016); therefore, employing an *emic perspective* was imperative to our narrative construction. Our research team met to discuss and acknowledge our experiences with failure before the study began. This initial reflection helped us identify our *etic perspectives* — our definitions, navigation, and impacts of failure based on our past experiences.

In the next phase, we analyzed the data using narrative thematic analysis, emphasizing the content of our conversations and interviews (i.e., what participants said) rather than how participants spoke and came across (Reissman, 2008). This allowed us to reflect on each participant’s story separately, drawing out critical events and experiences to arrive at participants’ “true meanings” (Merriam & Tisdell, 2016, p. 16). By articulating and calibrating our etic perspectives, we more authentically interpreted the *emic* insights of our participants, which enriched our understanding and the validity of our findings.

Due to the substantial data collected from our 36 interviews, we first identified relevant text within participant transcripts (Saldaña, 2021). The data became more manageable by highlighting the sentences and phrases pertinent to our study’s purpose and research questions (Auerbach & Silverstein, 2003). We then assigned In-Vivo codes to each relevant text segment that directly resembled participant dialogue, maintaining data integrity and preserving participant contributions (Charmaz, 2014; Creswell & Creswell, 2023). Our In-Vivo coding resulted in 548 codes grouped into four categories based on their relevance to failure: 1) *encountering and identifying failure* (n = 152), 2) *working through failure* (n = 98), 3) *proceeding after failure* (n = 196), and 4) *other codes* (n = 102).

We advanced to second-cycle coding by pattern coding our In-Vivo codes within all four groups (Miles et al., 2020; Saldaña, 2021). We developed 64 pattern codes across these categories. Moving forward with Reissman’s (2008) narrative thematic analysis, we categorized our pattern codes into 12 representative

categories: *appreciation for failure, cooperating teacher pedagogy, emotional strain of failure, empowerment after reconciling failure, growth mindset, mindset shift, psychological impact of failure, resilience as a product of failure, facing harsh realities of the classroom, unprepared to teach, use of reflection, and value of the cooperating teacher*. These broad categories ensured each remained authentic and characteristic of our participants (Connelly & Clandinin, 1990; Ewick & Silbey, 2003). Finally, our analysis culminated in the development of four themes that captured the core components of our findings and provided insight into our participants' experiences (Solis, 2004): *Enduring the Emotional Strain of Failure, Experiencing the Reality Check of Teaching, Navigating Failure with Support, and Transforming through Failure*. A complete codebook of our data analysis can be found in Appendix D.

Narrative Reconstruction

We reconstructed final narratives representative of each participant's story and experience. This process included theorizing the narratives and applying a future-oriented lens to contemplate improvements or developmental possibilities, thereby forecasting practical implications for teacher preparation programs (Kim, 2016; Tamboukou, 2012). Our reconstruction made meaning from personal experiences to shape how teacher education utilizes our insights (Clandinin & Connelly, 2000; Pinnegar & Daynes, 2007; Clandinin, 2007). This insight led us to develop an *adventure story* with distinct personas to represent the complex patterns of our participants' experiences. This also illustrated how differing approaches to failure contribute to teacher identity development and resilience.

Persona Development. The culmination of our narrative construction led us to develop four personas: Jamie, Avery, Taylor, and Casey (Appendices E, F, G, and H). As we developed these personas, teacher identity surfaced. As such, these four personas were represented across each of the final themes of our narrative analysis: *Navigating with Support, Responding to Failure, Pressing Forward, and Gaining from Failure*. Though some of our participants aligned more with one persona, all personas reflected elements from each participant's experience. Each persona represented a specific approach to processing and growing from failure, encompassing various coping strategies and, therefore, different outcomes. Personas allowed us to highlight the nuance of how student teachers' experiences with failure contributed to their developing teacher identities.

Jamie. Jamie did not experience failure during his student teaching semester; however, he later believed his "failure-free" experience was entirely a failure because of its absence. He took advantage of his cooperating teacher's support throughout his experience to avoid failure, but he now experiences adverse effects. Since Jamie did not have to face failure and work through it head-on during student teaching, he missed out on valuable learning experiences that naturally result from the failure process.

Avery. Up until student teaching, Avery never needed help or support. Her system was shocked when she finally experienced failure during student teaching. Avery's cooperating teacher allowed her to struggle during her failure moment but later offered advice and support. Afterward, her experience with failure left a lasting impression. Avery later regularly went above and beyond to prevent failure from happening again by overcompensating (e.g., working extra-long hours, sacrificing her personal life) to avoid failure at all costs.

Taylor. Taylor experienced a challenging and surprising failure moment during student teaching, but she leveraged her cooperating teacher's support to overcome it. In doing so, she felt more confident in her abilities and more prepared for her teaching career. The student teaching failure made a lasting, positive impression on her.

Casey. The moment of failure stung when Casey experienced it, but it was unsurprising. She was prepared to encounter and engage in failure because she had experienced failure before and knew she could

grow from it. Casey leaned into her cooperating teacher's support to improve and now actively uses the tools and knowledge gained from the experience of failure to be an effective teacher in her classroom.

Trustworthiness

We prioritized personal truths within their situated perspectives and acknowledged the incompleteness of our participants' narrative accounts (Clifford, 1986; Denzin, 2000; Connelly & Clandinin, 1990). To bolster trustworthiness, we developed a detailed codebook to trace our interpretations of the data (Bazeley, 2021), which we supported through analytic memoing (Saldaña, 2021). We also engaged in member checking after each of the three interviews with each of the twelve participants. Additionally, we maintained rigor by aligning our findings with Schank's (1999) Failure-Driven Memory Theory.

Discussion of Findings

Our narrative inquiry thematic analysis led to four final themes: *Navigating with Support*, *Responding to Failure*, *Pressing Forward*, and *Gaining from Failure*. These themes informed our findings by providing a content-focused account of our participants' lived experiences with failure during the student teaching experience (Riessman, 2008). Our participants recalled stories of forgetting bovine reproductive tracts, losing complete control of a classroom, avoiding lesson plan development, mispronouncing veterinary science terminology, and being unprepared to teach agricultural mechanics-related coursework, among other instances, identifying each of these as failures and speaking to the subjective nature of failure (Lutovac, 2019, 2020; Lutovac & Flores, 2021).

Navigating with Support

Across all stories of the student teaching experience, we heard how our participants leveraged support systems to navigate their failures. Undoubtedly, the footprint of the cooperating teacher amid failure left the greatest impression. Many student teachers acknowledged their cooperating teacher's impact during and beyond the student teaching experience. Some even declared their relationship and time with their cooperating teacher as the sole reasons for keeping them in the classroom—indicating these mentors' emotional support bolstered resilience and commitment to teaching, a finding echoed by others (Ingersoll & Strong, 2011; Mason, 1999). Taylor and Casey exemplified this sentiment, stating, “[Cooperating teacher] helps me a lot, even after [student teaching]” and “Probably one of the reasons why I'm still teaching.” These mentor relationships showed how failure experiences, when supported, were encoded as meaningful experiences, just as Failure-Driven Memory Theory suggests failure moments are retained, reflected upon, and drawn from in future situations (Schank, 1999).

Mentoring

Within these stories, we saw levels of cooperating teacher involvement vary while their student teachers experienced challenges and setbacks. Regardless of these variations, involvement in every case was grounded in a mentoring philosophy. Jamie's cooperating teacher saw their role as a protector and guide, always ready to help: “[When I was unprepared], my cooperating teacher would send me another PowerPoint.” Their mentoring approach closely resembled Cuenca's (2011) concept of tethered learning—not merely as a safety net but as a structured approach to teaching with sufficient support to mitigate risks. Tethered learning exists when novices (i.e., student teachers) are given space to take risks while receiving guidance to refine their skills and align with professional norms (Davies, 2005). However, in Jamie's case, the extreme intervention of his cooperating teacher hindered his autonomy and agency, key components of professional growth and self-efficacy (Feiman-Nemser, 2001). This dependency created challenges later when he had to navigate failures on his own, “I feel now as if I was hurting myself.”

In contrast, Avery and Taylor's cooperating teachers supported them by providing *tough love*, even when the student teachers resisted. These student teachers felt their cooperating teachers encouraged their failures, resembling productive failures (Kapur, 2015). Taylor recalled, "[Cooperating teacher] threw all the curveballs to me at the beginning." Nevertheless, their cooperating teacher always provided support and guidance afterward. Even though they may not have rushed in to save the day, these student teachers took comfort in knowing their cooperating teacher had their best interests at heart. This dynamic revealed the element of trust; Taylor's cooperating teacher trusted her to take ownership and learn from the difficult situation, while Taylor trusted her mentor's restraint was intentional and used with purpose. This mutual trust created feelings of gratefulness as the student teachers reflected positively on the "sink or swim" mentoring approach their cooperating teachers instilled, believing this form of support "helped me learn what it's going to be like as an agriculture teacher" and prepared them for the reality of teaching.

Encouraging Agency

The tough love some student teachers received encouraged agency by granting them the freedom to take control of the classroom and teach in their own way. Though their approaches were not always successful and often resulted in failure, these student teachers valued the opportunity to experience these mistakes—experiences that later served as guiding negative knowledge for them in their own classrooms (Gartmeier et al., 2008). Moreover, this mentoring approach reinforced a growth mindset by prompting student teachers to use their failures as learning moments and growth (Dweck, 2006).

Other cooperating teachers, such as Jamie's, allowed for agency but to a lesser degree. While Jamie initially took advantage of the opportunity to teach independently, he gradually leaned into his cooperating teacher's support as the semester progressed, seeing it as the path of least resistance. While comforting, these findings emphasized the importance of a balanced mentoring approach that fosters agency, resilience, and self-efficacy rather than creating dependency and hindering growth (Doheny et al., 2020; Hong, 2012).

Valuing Relationships

All student teachers reflected on their time and relationship with their cooperating teachers with great value and sincerity. Regardless of the level of support received, each student teacher held the wisdom impressed upon them in high regard. In every failure situation, student teachers looked to their cooperating teachers for advice and guidance because they trusted they could tap into their mentors' knowledge at any moment. This trust demonstrated the quality of the relationship between the student teachers and cooperating teachers, a key factor in successful mentoring relationships (Jones et al., 2014).

Seeking and providing support is characteristic of most student teacher/cooperating teacher relationships (Brown et al., 2015). Yet, we found the extent to which each student teacher valued their cooperating teacher in the context of failure far more significant than typical. Taylor explained her cooperating teacher's support lifted her during her darkest hour and motivated her to rise above challenges. Taylor and Casey expressed a heightened appreciation for their cooperating teachers' knowledge, recognizing their mentors' guidance aided their progress. In these moments, their cooperating teachers supported them by reframing failure as a learning opportunity, shifting Taylor's and Casey's mindset (Dweck, 2006), and fostering adaptability and identity development (Gu & Day, 2007).

Responding to Failure

The varying responses to failures during our participants' student teaching experiences testified to the subjective nature of failure. Some responded with heightened fear, leading to anxiety and stress. In response, they committed to avoiding failure at all costs (e.g., overworking themselves and sacrificing personal time to achieve perfection). Fear was less paralyzing for others because it served as a constructive

motivator, reinforcing the importance of preparation and awareness. These fluctuating reactions provided insight into how perceptions of failure shaped teacher identity and resilience.

Perceiving Failure

Fear of failure emerged in Jamie and Avery's stories, representing a self-imposed barrier during their student teaching experience. For Jamie, fear was alleviated, though ultimately reinforced, by his cooperating teacher's unwavering support. He sidestepped failures by relying on provided resources, which delivered comfort but prevented him from fully embracing failure as an opportunity for growth. His avoidance resembled a fixed mindset (Dweck, 2006), reinforcing his mentality that failure should be feared rather than engaged. Jamie appeared to equate his failure with a gap in his ability and who he was, ruling out the possibility the failure indicated a need to prepare and craft his skills. He viewed his ability as static and his failure as a reflection of personal inadequacy, not an opportunity for growth. As a result, Jamie avoided challenge and risk by choosing comfort and certainty over the discomfort of failure learning. On the other hand, Avery refused to accept the possibility of failure. Though she had been told before student teaching experiencing failure was inevitable, she resisted the idea, creating emotional tension whenever she encountered setbacks. This internal struggle underscored failure as a subjective experience shaped by Avery's personal beliefs about success and adequacy, much like Weiner's (1985) attribution theory. How participants interpreted failure—whether they attributed it to ability, effort, or external circumstances—directly influenced their responses and willingness to move forward.

Taylor initially experienced fear when she failed but later transformed it into motivation. She internalized the weight of her failure, explaining, "I felt like I let my students down." Her perception added a layer of responsibility to her failure experience, intertwining fear with her desire to meet students' expectations. Fortunately, Taylor worked through the moment with her cooperating teacher, who encouraged her to adopt a growth-oriented approach. Without this shift in mindset, she could have easily resorted to playing it safe, limiting her teaching strategies to simple and basic lesson designs, as the tendency to avoid risk could have restricted Taylor's willingness to experiment with new ideas.

Overcompensating for Failure

Among the narratives, Avery's story best illustrated how an unhealthy response to failure can spiral into perfectionism and overwork. Initially, she took failure constructively, using her cooperating teacher's feedback to improve and anticipate challenges. However, as she began her first year of teaching, this constructive response escalated into a relentless pursuit of perfection. Avery described her work schedule as being at school from 6:00 a.m. until 7:00 p.m. daily, blurring the line between her personal and professional life. Her need for perfection stemmed from a familiar fear of failing her students: "If I wasn't gonna be perfect, I was failing my students." This pressure became all-consuming, leading her to believe avoiding mistakes was the only way to prove her competence. Unfortunately, Avery's approach took a significant emotional and physical toll, illustrating a prime example of how fear of failure, if addressed solely through overwork, led to burnout rather than resilience.

Embracing Failure

Unlike Jamie and Avery, Taylor and Casey embraced failure as a learning opportunity, demonstrating how challenging experiences can be transformed into growth. Taylor's shift in perspective was largely due to her cooperating teacher's encouragement: "To learn from something, you have to fail." Hearing this persuaded her to reframe her failure and allowed her to see mistakes in her animal science lesson as necessary for development. Rather than retreating to self-doubt, Taylor actively engaged with her failure, establishing trust in her abilities and applying a growth mindset (Dweck, 2006). This aligned with

Danyluk et al.'s (2021) call for student teachers and cooperating teachers to maintain open communication amid failures, sanctioning failure as a path forward rather than a setback.

Casey, in contrast, relied on self-reflection to process and grow from failure. While she leaned on her cooperating teacher for support, she primarily looked inward, regularly asking herself, "How do I better myself so I don't put myself in a situation like this again?" While this could have been taken as overcompensation, like Avery, Casey's response was grounded in curiosity and a desire to improve, not driven by fear and the need to prove herself. Her reflective process mirrored Schön's (1983) recommendations for professional growth and aligned with the resilience-building framework described by Stroud Stasel and Evans (2023), where self-reflection fosters adaptability and confidence over time. Casey's reflections extended beyond program requirements, becoming embedded in her teaching philosophy. She engaged in weekly reflection beyond what was expected and continued this practice into her teaching career. By openly engaging with her mistakes, she cultivated habits that contributed to resilience (Back et al., 2007; Laksov & McGrath, 2020; Woods & Hollnagel, 2006).

Pressing Forward

Throughout their student teaching experience, participants regularly encountered challenges and setbacks, even though they focused on a single failure moment during our interviews. These repeated difficulties influenced their confidence and perceived competence as teachers, key components of teacher self-efficacy (Bandura, 1997; Tschannen-Moran & Woolfolk Hoy, 2001). Teacher self-efficacy, a teacher's belief in their ability to effectively execute teaching tasks (Bandura, 1977), remained central as participants navigated their failures and developed differently based on their ability to persevere.

Building Conditional Confidence

Jamie's experience illustrated the risks of conditional confidence. During student teaching, Jamie felt accomplished and confident in his abilities, believing wholeheartedly that he was prepared for his teaching career. However, his sense of competence was fragile and temporary, propped up by his cooperating teacher's constant support. Jamie admitted, "I built those bad habits because [cooperating teacher] enabled it to happen." This confidence quickly collapsed during his first year, leading to a harsh realization: "This was my moment to shine...this is the real test, but I'm not doing it the way I should be." In reflecting on his struggles, Jamie bluntly confessed, "I felt like a failure because [teaching and planning instruction] was what I got hired to do...I trained for four years to do this."

Jamie's story reinforced our previous discussion of the need for balanced cooperating teacher mentorship by incorporating tethered learning and agency. Productive failure is essential for developing resilient problem-solving skills and intrinsic motivation (Kapur, 2015). Jamie struggled, but his struggles were short-lived because his cooperating teacher offered immediate help, and this experience left him unprepared to navigate setbacks independently. Nevertheless, because Jamie did not experience and process failure fully, he missed key components of Failure-Driven Memory Theory, like labeling and modifying his future behavior, which would have served him well in the future to convert his failure to improved teaching practices (Schank, 1999).

Unlike Jamie, the other three student teachers experienced authentic failures without immediate intervention from their cooperating teachers. These mentors provided fault-tolerant environments (Gorbunova et al., 2023; Sinha & Kapur, 2021; Wang et al., 2023), by allowing student teachers to struggle but remained available as safety nets when guidance was sought. Avery described this experience as "being thrown in the fire," while Casey characterized it as "being thrown to the wolves." Yet, despite being cast into initial difficulties, all three later exhibited greater confidence in their careers than Jamie.

Transforming Setbacks

Taylor and Casey stood out for their ability to actively engage with failure rather than avoiding it. Taylor initially required prompting from her cooperating teacher, who told her, “You’re going to learn from this,” and “Jump in and do it.” These words instilled confidence in Taylor, motivating her to take ownership of her lesson preparation and improve for the next school day. Unlike Jamie, Taylor cultivated authentic self-efficacy by confronting her setbacks and overcoming them on her own.

Casey’s method of pressing forward differed in that she relied on systematic reflection (Ellis et al., 2014). She carefully analyzed her failure, relied on data and feedback, and strategically planned her next steps, dictating to herself, “I needed to have a plan.” Casey used daily journals to process her failures and shared, “I would think about what went well that day, what I thought went bad.” This self-reflective approach led Casey to embrace accountability, demonstrating her integrity by apologizing to students when she made mistakes. This strengthened her classroom relationships and boosted her confidence in classroom management. Casey’s experience highlighted how setbacks, when approached constructively, could serve as catalysts for personal and professional growth.

Diverging Approaches to Press Forward

Avery took a markedly different approach to pressing forward, shaped by the pressure she felt to succeed. Before student teaching, she said, “I was always told that I’m gonna fail,” yet she “never accepted it.” When failure inevitably occurred, she felt “shameful” and guilty for making mistakes. Unlike Taylor and Casey, who embraced failure through reflection and support, Avery isolated herself, refusing to seek help: “I didn’t want to share [my failure] with other people.” She avoided failure by doubling down on work, a coping mechanism that extended into her first years of teaching: “I would use my entire weekend to try to do all these lesson plans” and “spent summers rehashing [curriculum].” Despite the emotional and physical toll, Avery remained committed to her belief that “I’m gonna be successful if I work hard to the best of my ability.” However, her efforts exemplified the risks of unsustainable work habits.

Gaining from Failure

Our participants’ final theme demonstrated how student teachers gradually reframed their failures into essential learning experiences. While some readily applied growth mindsets and embraced failure as a natural step in their teaching journey, others required time and support to shift their perspectives. Across all narratives, engaging with failure, rather than avoiding it, emerged as a key factor in building resilience and teacher self-efficacy.

Realizing Missed Opportunities

Jamie’s story underscored the costs of avoiding failure. Reflecting on his student teaching experience, Jamie recognized how his dependence on external support hindered his development. His experience served as a warning for student teachers, cooperating teachers, and teacher educators about the dangers of shielding preservice teachers from authentic struggles. Distinct from his peers who were empowered with agency and autonomy, Jamie never had the opportunity to develop a realistic sense of teaching independence. Beyond confidence, these missed opportunities affected Jamie’s professional identity formation because autonomy and agency are crucial for teacher development (Teng, 2019). His experience echoed Parker’s (2015) finding that over-reliance on support inhibits identity formation, reinforcing a false sense of confidence and preparedness. In contrast to Jamie, who remained confined within a safety net that masked his challenges, his peers faced failures head-on and emerged stronger.

Becoming Flexible

Though Avery initially struggled with perfectionism, she eventually recognized the importance of adaptability in teaching. She realized the rigid, structured lesson plans she had relied on were impractical in the dynamic reality of the classroom. Over time, Avery embraced her cooperating teacher's advice to "Go with the flow," leading her to release the anxiety of strictly following lesson plans. van Manen (1995) described this shift as acquiring practical knowledge, an understanding that allows teachers to act thoughtfully and responsively in real-world classroom situations. Avery's experience illustrated negative knowledge (i.e., learning what does not work), which became crucial for balancing structured instructional design with classroom adaptability. While detailed lesson plans are essential for developing pedagogical skills (Garrison & Kanuka, 2004; Iqbal et al., 2021; Kang, 2017; König et al., 2021; Singh, 2008), Avery's experience highlighted the need for teacher educators to emphasize flexibility and real-time decision-making. Schön (1987) suggested that structured teacher preparation often marginalizes practical knowledge, yet Avery's journey contradicted this notion. Instead, her failure experience complemented her formal training, helping her integrate theoretical knowledge with real-world adaptability, which made her a more effective teacher.

Gaining Motivation for Mastery

Before failing, Taylor believed she was adequately prepared for her animal science lesson. However, after struggling, she discovered significant gaps in her knowledge. This realization motivated her to improve, prompting her to master her lesson content the same day and refine it for future instruction. This growth continued beyond student teaching, as Taylor actively sought professional development workshops and built connections with local agriculture teachers for ongoing learning. Taylor's transformation demonstrated mastery experiences, where overcoming her challenges strengthened her teacher self-efficacy (McKim & Velez, 2017). She reflected, "The skills you develop from failure end up helping you a lot more in life than being good at everything all the time." Her proactive response leveraged professional development and support systems, reinforcing teacher self-efficacy (McKim & Velez, 2017). By taking ownership of her failures and actively seeking improvement, Taylor demonstrated a commitment to long-term growth and mastery.

Demonstrating Resilience and Regulation

Casey's experience diverged from her peers since she entered student teaching with resilience and self-regulation. Masten (2001) described resilience as *ordinary magic*, a capacity developed through repeated exposure to adversity. Casey's non-traditional background and past failures shaped her ability to view challenges as routine aspects of growth. Consequently, Casey's response to failure was measured and systematic, different from her peers, who experienced failure as a disruption. Her approach mirrored Zimmerman's (2002) self-regulatory processes, as she instinctively applied goal-setting, self-monitoring, and adaptive decision-making when faced with setbacks. Rather than becoming overwhelmed, Casey focused on structured strategies for improvement and used self-reflection as a continuous tool for growth. By leveraging her resilience and regulatory habits, Casey approached failure with stability and optimism, distinguishing her response from the shock and self-doubt her peers initially exhibited. Her experience highlighted the importance of pre-existing resilience and structured reflection in helping student teachers navigate and gain from failure effectively.

Conclusions

The varying mentoring approaches in our participants' stories, such as Jamie's and Casey's, revealed differing support impacts on their development. This directly uncovered the overarching issue of preservice teachers' unpreparedness for inevitable failures in student teaching and beyond. Jamie's cooperating teacher acted as a protector, often intervening and even doing the work for him, twisting Cuenca's (2011) concept of tethered learning into *attached-at-the-hip learning*. This extreme intervention

hindered Jamie's autonomy and professional growth (Deci & Ryan, 2008), exemplifying the problem of preservice teachers being unprepared to tackle challenges independently. In contrast, Taylor and Casey benefited from tough love mentoring. This was referred to as a *sink or swim* mentality and encouraged productive failures (Kapur, 2015). In doing so, this prepared them for the demands of teaching and aligned with the need to equip preservice teachers with strategies to transform setbacks into opportunities for growth. Initially, Avery also received limited support from her cooperating teacher, which forced her to face her failure and eventually sparked an intense internal drive to improve, evidenced by her tendency to overwork herself. These contrasting experiences highlighted how varied mentoring approaches, ranging from overprotection to intentional failure, stifled or stimulated the resilience required to navigate and learn from failure.

Our findings also showed how the interplay between mindset, reflection, and resilience shaped preservice teachers' responses to failure. Avery's perfectionism underscored the harm of unaddressed fears of failure, demonstrating how unmet expectations can exacerbate the stress and anxiety associated with teaching failure. Whereas Avery's response was marked by passionate effort and overcommitment, Casey's proactive engagement with failure through structured reflection practices accentuated the transformative power of engaging with failure (Back et al., 2007; Woods & Hollnagel, 2006), enhancing adaptability and identity development (Gu & Day, 2007; Jones et al., 2014). We also found trust and balanced support were central to fostering resilience, reaffirming cooperating teachers' pivotal role in preparing student teachers for the complex realities awaiting future teachers in their classrooms. This finding was crucial as it connected our investigation to how different support systems aid preservice teachers in navigating and reconciling their failures, significantly contributing to these individuals' personal and professional development.

Knowing what we know now, we advise teacher preparation programs and their educators to tap into and utilize failure as a learning tool without shielding preservice teachers from the consequences of challenges and failures. While tough love mentoring was beneficial, it was initially rough for our student teachers to process. Teacher educators must be willing to be firm with preservice teachers amid challenges, allowing them to experience failure and bracing them for failures on the horizon (Cannon & Edmondson, 2005). Such approaches will address the problem we initially identified: preservice teachers' frequent unpreparedness for the realities of teaching. This was the same dilemma Avery experienced and later attributed to her teacher preparation program, stating, "The University of Nebraska-Lincoln's coursework didn't prepare me at all for what education was," and as a result, she "...learned the very hard way." More importantly, this approach will expose preservice teachers to the harsh and inevitable teaching failures they will encounter early on and equip them to transform these setbacks into opportunities for growth and learning, thereby gaining resilience and self-efficacy, which will in turn support teacher retention.

Implications for Research

Our future research will explore how mentoring approaches and failure experiences shape preservice teacher development. We are particularly interested in the connections between support and resilience amid failure experiences and how these insights might inform scalable practices across teacher preparation programs. Questions remain regarding the generalizability of reflection methods across teacher preparation programs. Empirical studies need to measure the impact of failure-focused reflections on resilience and self-efficacy using experimental designs. Lastly, research must consider the intersection of emotional intelligence and self-regulation among preservice teachers to uncover how these traits influence perfectionistic behavior. Avery's story revealed how intense emotional responses to failure and limited self-regulation led to burnout. While this effort reflected commitment, it also highlighted Avery's lack of emotional tools to manage failure constructively. This finding raised questions about how emotional intelligence and self-regulatory habits shape preservice teachers' responses to challenges. Thus, future research must clarify how to incorporate and instill sustainable teaching practices to mitigate stress and

enhance teacher effectiveness sustainably as preservice teachers internalize and recall failure experiences, processes central to Failure-Driven Memory Theory (Schank, 1999).

Implications for Practice

Teacher preparation programs must prioritize and create fault-tolerant environments where failure is normalized, accepted, and strategically used as a learning tool. These environments, both on campus and within student teaching centers, should feature prescribed mentoring approaches providing sufficient autonomy and intentional, balanced support. Teacher preparation programs can achieve this by coaching cooperating teachers to facilitate productive failure conditions and guide preservice teachers in constructive and systematic reflection on failure. By doing so, teacher preparation programs will enact mentorship strategies aligning with the realities of teaching. We can embrace this complexity using failure to foster deeper reflection and professional growth and enlisting cooperating teachers as facilitative guides rather than protectors. Implementing these practices will transform teacher education, preparing preservice teachers for complex classroom dynamics.

References

- Allen, M. (2003). *Eight questions on teacher preparation: What does the research say? A summary of the findings*. Education Commission of the States.
- Auerbach, C. F., & Silverstein, L. B. (2003). *Qualitative data: An introduction to coding and analysis*. New York University Press.
- Back, J., Furniss, D., Blandford, A. (2007). Cognitive resilience: Reflection-in-action and on-action. *Resilience Engineering Workshop, Vadstena, Sweden*, 1-6.
- Bamberg, M. (2004). Positioning with Davie Hogan: Stories, tellings, and identities. In C. Daiute & C. Lightfoot (Eds.), *Narrative analysis: Studying the development of individuals in society* (pp. 135-157). Sage Publications, Inc.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman and Company.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215. <https://doi.org/10.1037//0033-295x.84.2.191>
- Bazeley, P. (2021). *Qualitative data analysis: Practical strategies* (2nd ed.). Sage Publications, Inc.
- Beale, C. (2013). Keeping the story together: A holistic approach to narrative analysis. *Journal of Research in Nursing*, 18(8), 692-704. <https://doi.org/10.1177/1744987113481781>
- Beltman, S., Mansfield, C., & Price, A. (2011). Thriving not just surviving: A review of research on teacher resilience. *Educational Research Review*, 6(3), 185-207. <https://doi.org/10.1016/j.edurev.2011.09.001>
- Bey, T. (1992). Mentoring in teacher education: Diversifying support for teachers. In T. Bey & C. T. Holmes (Eds.), *Mentoring: Contemporary principles and issues*. Association of Teacher Educators.

- Bowles, T., & Arnup, J. L. (2016). Early career teachers' resilience and positive adaptive change capabilities. *The Australian Educational Researcher*, 43(2), 147–164. <https://doi.org/10.1007/s13384-015-0192-1>
- Bowling, A., Claflin, K., Martin, M., Parker, H., Ramsier, R., & Owiti, J. (2024). Internal dilemmas and external burdens: Exploring student teacher lesson planning. *Proceedings of the Annual Research Conference*. Annual American Association for Agricultural Education Research Conference, Manhattan, KS.
- Brear, M. (2018). Swazi co-researcher participants' dynamic preferences and motivations for representation with real names and (English-language) pseudonyms: An ethnography. *Qualitative Research*, 18(6), 722–740. <https://doi.org/10.1177/1468794117743467>
- Brown, A. L., Lee, J., & Collins, D. (2015). Does student teaching matter? Investigating pre-service teachers' sense of efficacy and preparedness. *Teaching Education*, 26(1), 77–93. <https://doi.org/10.1080/10476210.2014.957666>
- Caires, S., Almeida, L. S., & Martins, C. (2010). The socio---emotional experiences of student teachers during practicum: A case of reality shock? *The Journal of Educational Research*, 103(1), 17–27. <https://doi.org/10.1080/00220670903228611>
- Cannon, M. D., & Edmondson, A. C. (2005). Failing to learn and learning to fail (intelligently): How great organizations put failure to work to innovate and improve. *Long Range Planning*, 38(3), 299-319. <https://doi.org/10.1016/j.lrp.2005.04.005>
- Carr, D. (1986). *Time, narrative, and history*. Indiana University Press.
- Carver-Thomas, D., & Darling-Hammond, L. (2017). Teacher turnover: Why it matters and what we can do about it. *Learning Policy Institute*.
- Castro, A. J., Kelly, J., & Shih, M. (2010). Resilience strategies for new teachers in high-needs areas. *Teaching and Teacher Education*, 26(3), 622-629. <https://doi.org/10.1016/j.tate.2009.09.010>
- Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). Sage Publications, Inc.
- Chein, I. (1981). Appendix: An introduction to sampling. In L. H. Kidder (Ed.), *Sellitz, Wrightsman & Cook's research methods in social relations* (4th ed., pp. 418-441). Rinehart and Winston.
- Chilisa, B. (2012). *Indigenous research methodologies*. Sage Publications, Inc.
- Clandinin, D. J. (2007). *Handbook of narrative inquiry: Mapping a methodology*. Sage Publications, Inc.
- Clandinin, D. J. (2013). *Engaging in narrative inquiry*. Left Coast Press, Inc.
- Clandinin, D. J., & Connelly, F. M. (1998). Stories to live by: Narrative understandings of school reform. *Curriculum Inquiry*, 28(2), 149-164. <https://doi.org/10.1111/0362-6784.00082>
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative inquiry: Experience and story in qualitative research*. Jossey-Bass.
- Clifford, J. (1986). Partial truths. In J. Clifford & G. E. Marcus (Eds.), *Writing culture: The poetics and politics of ethnography* (pp. 1-26). University of California Press.

- Coffey, A., & Atkinson, P. (1996). *Making sense of qualitative data: Complementary research strategies*. Sage Publications, Inc.
- Collier, S. T. (1999). Characteristics of reflective thought during the student teaching experience. *Journal of Teacher Education*, 50(3), 173–181. <https://doi.org/10.1177/002248719905000303>
- Connelly, F. M., & Clandinin, D. J. (1990). Stories of experience and narrative inquiry. *Educational Researcher*, 19(5), 2-14. <https://doi.org/10.2307/1176100>
- Craig, C. J. (2007). Story constellations: A narrative approach to contextualizing teachers' knowledge of school reform. *Teaching and Teacher Education*, 23(2), 173–188. <https://doi.org/10.1016/j.tate.2006.04.014>
- Crane, M. F., Searle, B. J., Kangas, M., & Nwiran, Y. (2019). How resilience is strengthened by exposure to stressors: The systematic self-reflection model of resilience strengthening. *Anxiety, Stress, & Coping*, 32(1), 1–17. <https://doi.org/10.1080/10615806.2018.1506640>
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: qualitative, quantitative, and mixed methods approaches* (6th ed.). Sage Publications, Inc.
- Creswell, J. W., & Guetterman, T. C. (2019). *Educational research: Planning, conducting, and evaluating qualitative and quantitative research*. Pearson.
- Cuenca, A. (2011). The role of legitimacy in student teaching: Learning to “feel” like a teacher. *Teacher Education Quarterly*, 38(2), 117–130. <http://www.jstor.org/stable/23479696>
- Cumming, J. (1971). Back to the sticks for student teaching! *Journal of Teacher Education*, 22(3), 294–298. <https://doi.org/10.1177/002248717102200310>
- Danyluk, P. J., Luhanga, F., Gwekwerere, Y. N., MacEwan, L., & Larocque, S. (2015). Failure to fail in a final preservice teaching practicum. *The Canadian Journal for the Scholarship of Teaching and Learning*, 6(3). <https://doi.org/10.5206/cjsotl-rcacea.2015.3.5>
- Danyluk, P. J., Burns, A., Crawford, K., & Hill, S. L. (2021). Preservice teachers' perspectives of failure during a practicum. *Teaching Education*, 32(3), 237–250. <https://doi.org/10.1080/10476210.2019.1693536>
- Darabi, A., Arrington, T. L., & Sayilir, E. (2018). Learning from failure: A meta-analysis of the empirical studies. *Educational Technology Research and Development*, 66(5), 1101–1118. <https://doi.org/10.1007/s11423-018-9579-9>
- Darling-Hammond, L., Chung, R., & Frelow, F. (2002). Variation in teacher preparation: How well do different pathways prepare teachers to teach? *Journal of Teacher Education*, 53(4), 286–302. <https://doi.org/10.1177/0022487102053004002>
- Davies, B. (2005). Communities of practice: Legitimacy not choice. *Journal of Sociolinguistics*, 9(4), 557-581. <https://doi.org/10.1111/j.1360-6441.2005.00306.x>
- Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology/Psychologie canadienne*, 49(3), 182-185. <https://doi.org/10.1037/a0012801>

- Denzin, N. (2000). Preface. In M. Andrews et al. (Eds.), *Lines of narrative: Psychosocial perspectives* (pp. xi-xiii). Routledge.
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. D.C. Heath & Co. Publishers.
- Dewey, J. (1938). *Experience and education*. Macmillan Company.
- DiMenichi, B. C., & Richmond, L. L. (2015). Reflecting on past failures leads to increased perseverance and sustained attention. *Journal of Cognitive Psychology, 27*(2), 180–193. <https://doi.org/10.1080/20445911.2014.995104>
- Ding, A.-C., & Wang, H. (2018). Unpacking teacher candidates' decision-making and justifications in dilemmatic spaces during the student teaching year. *Asia-Pacific Journal of Teacher Education, 46*(3), 221–238. <https://doi.org/10.1080/1359866X.2018.1442916>
- Dohaney, J., de Róiste, M., Salmon, R. A., & Sutherland, K. (2020). Benefits, barriers, and incentives for improved resilience to disruption in university teaching. *International Journal of Disaster Risk Reduction, 50*, 1-9. <https://doi.org/10.1016/j.ijdr.2020.101691>
- Drew, S. V., & Sosnowski, C. (2019). Emerging theory of teacher resilience: A situational analysis. *English Teaching: Practice & Critique, 18*(4), 492–507. <https://doi.org/10.1108/etpc-12-2018-0118>
- Dumas, W. (1969). Factors associated with self-concept change in student teachers. *The Journal of Educational Research, 62*(6), 275–278. <https://doi.org/10.1080/00220671.1969.10883841>
- Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality and development*. Psychology Press.
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. Random House Publishing Group.
- Ellis, S., Carette, B., Anseel, F., & Lievens, F. (2014). Systematic reflection: Implications for learning from failures and successes. *Current Directions in Psychological Science, 23*(1), 67–72. <https://doi.org/10.1177/0963721413504106>
- Ericsson, K. A., Krampe, R. T., & Tesch-Romer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review, 100*(3), 363–406. <https://doi.org/10.1037/0033-295x>
- Ewick, P., & Silbey, S. (2003). Narrating social structure: Stories of resistance to legal authority. *American Journal of Sociology, 108*(6), 1328-1372. <https://doi.org/10.1086/378035>
- Feiman-Nemser, S. (2001). Helping novices learn to teach: Lessons from an exemplary support teacher. *Journal of Teacher Education, 52*(1), 17-30. <https://doi.org/10.1177/0022487101052001003>
- Fowler, L. (2013). Special feature: Eight orbitals of inquiry: Reconceptualizing narrative methods in education research. *in Education, 16*(2), 121. <https://doi.org/10.37119/ojs2010.v16i2.105>
- Fwu, B. J., Chen, S. W., Wei, C. F., & Wang, H. H. (2018). I believe; therefore, I work harder: The significance of reflective thinking on effort-making in academic failure in a

- Confucian-heritage cultural context. *Thinking Skills and Creativity*, 30, 19-30. <https://doi.org/10.1016/j.tsc.2018.01.004>
- Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, 7(2), 95-105. <https://doi.org/10.1016/j.iheduc.2004.02.001>
- Gartmeier, M., Bauer, J., Gruber, H., & Heid, H. (2008). Negative knowledge: Understanding professional learning and expertise. *Vocations and Learning*, 1(2), 87-103. <https://doi.org/10.1007/s12186-008-9006-1>
- Gartmeier, M., Bauer, J., Gruber, H., & Heid, H. (2010). Workplace errors and negative knowledge in elder nursing. *Human Resource Development International*, 13(1), 5-25. <https://doi.org/10.1080/13678861003589057>
- Goldhaber, D., Krieg, J. M., Theobald, R. (2017). Does the match matter? Exploring whether student teaching experiences affect teacher effectiveness. *American Educational Research Journal*, 54(2), 325-359. <http://doi.org/10.3102/0002831217690516>
- Gorbunova, A., Van Merriënboer, J. J. G., & Costley, J. (2023). Are inductive teaching methods compatible with cognitive load theory? *Educational Psychology Review*, 35(4), 111. <https://doi.org/10.1007/s10648-023-09828-z>
- Greve, S., Weber, K. E., Brandes, B., & Maier, J. (2020). Development of pre-service teachers' teaching performance in physical education during a long-term internship: Analysis of classroom videos using the Classroom Assessment Scoring System K-3. *German Journal of Exercise and Sport Research*, 50(3), 343-353. <https://doi.org/10.1007/s12662-020-00651-0>
- Gu, Q., & Day, C. (2007). Teachers resilience: A necessary condition for effectiveness. *Teaching and Teacher Education*, 23(8), 1302-1316. <https://doi.org/10.1016/j.tate.2006.06.006>
- Harwood, A. M., Collins, L., & Sudzina, M. (2000). *Learning from student teacher failure: Implications for program design*. Annual Meeting of the American Educational Research Association, New Orleans, Louisiana.
- Henry, M. A., Shorter, S., Charkoudian, L., Heemstra, J. M., & Corwin, L. A. (2019). FAIL is not a four-letter word: A theoretical framework for exploring undergraduate students' approaches to academic challenge and responses to failure in STEM learning environments. *CBE—Life Sciences Education*, 18(11), 1-17. <https://doi.org/10.1187/cbe.18-06-0108>
- Hollins, E., & Guzman, M. T. (2005). Research on preparing teachers for diverse populations. In M. Cochran-Smith and K. M. Zeichner (Eds.) *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 477-548). Lawrence Erlbaum Associates.
- Hong, J. Y. (2012). Why do some beginning teachers leave the school, and others stay? Understanding teacher resilience through psychological lenses. *Teachers and Teaching*, 18(4), 417-440. <https://doi.org/10.1080/13540602.2012.696044>
- Iannaccone, L. (1963). Student teaching: A transitional stage in the making of a teacher. *Theory Into Practice*, 2(2), 73-80. <https://doi.org/10.1080/00405846309541841>

- Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of Educational Research, 81*(2), 201-233. <https://doi.org/10.3102/0034654311403323>
- Iqbal, M. H., Siddiqie, S. A., & Mazid, M. A. (2021). Rethinking theories of lesson plan for effective teaching and learning. *Social Sciences & Humanities Open, 4*(1), 1-7. <https://doi.org/10.1016/j.ssaho.2021.100172>
- Izadinia, M. (2016). Student teachers' and mentor teachers' perceptions and expectations of a mentoring relationship: Do they match or clash? *Professional Development in Education, 42*(3), 387-402. <https://doi.org/10.1080/19415257.2014.994136>
- Jones, C. K., Kelsey, K. D., & Brown, N. R. (2014). Climbing the steps toward a successful cooperating teacher/student teacher mentoring relationship. *Journal of Agricultural Education, 55*(2), 33-47. <https://doi.org/10.5032/jae.2014.02033>
- Kakazu, K., & Kobayashi, M. (2023). Student teachers' development through a first-time teaching practicum and challenges: A qualitative case study approach. *Journal of Education for Teaching, 49*(3), 401-415. <https://doi.org/10.1080/02607476.2022.2104629>
- Kang, H. (2017). Preservice teachers' learning to plan intellectually challenging tasks. *Journal of Teacher Education, 68*(1), 55-68. <https://doi.org/10.1177/0022487116676313>
- Kapur, M. (2015). Learning from productive failure. *Learning: Research and Practice, 1*(1), 51-65. <https://doi.org/10.1080/23735082.2015.1002195>
- Kasperbauer, H. J., & Roberts, T. G. (2007). Changes in student teacher perceptions of the student teacher-cooperating teacher relationship throughout the student teaching semester. *Journal of Agricultural Education, 48*(1), 31-41. <https://doi.org/10.5032/jae.2007.01031>
- Kelchtermans, G., & Ballet, K. (2002). The micropolitics of teacher induction: A narrative-biographical study on teacher socialization. *Teaching and Teacher Education, 18*(1), 105-120. [https://doi.org/10.1016/s0742-051x\(01\)00053-1](https://doi.org/10.1016/s0742-051x(01)00053-1)
- Kim, J. (2016). *Understanding narrative inquiry: The crafting and analysis of stories as research*. Sage Publications, Inc.
- Knowles, J. G., & Hoefler, V. B. (1989). The student teacher who wouldn't go away: Learning from failure. *Journal of Experiential Education, 12*(2), 14-21. <https://doi.org/10.1177/105382598901200204>
- Knowles, J. G., Skrobola, N. L. M., & Coolican, M. J. (1995). We watched them "fail": University supervisors' perceptions of "failure" in student teaching1. *International Journal of Qualitative Studies in Education, 8*(2), 149-170. <https://doi.org/10.1080/0951839950080204>
- König, J., Krepf, M., Bremerich-Vos, A., & Buchholtz, C. (2021). Meeting cognitive demands of lesson planning: Introducing the CODE-PLAN model to describe and analyze teachers' planning competence. *The Teacher Educator, 56*(4), 466-487. <https://doi.org/10.1080/08878730.2021.1938324>

- Korte, D. S., & Simonsen, J. C. (2018). Influence of social support on teacher self-efficacy in novice agricultural education teachers. *Journal of Agricultural Education, 59*(3), 100–123. <https://doi.org/10.5032/jae.2018.03100>
- Laksov, K. B., & McGrath, C. (2020). Failure as a catalyst for learning: Towards deliberate reflection in academic development work. *International Journal for Academic Development, 25*(1), 1–4. <https://doi.org/10.1080/1360144X.2020.1717783>
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge University Press.
- Le Cornu, R. (2013). Building early career teacher resilience: The role of relationships. *Australian Journal of Teacher Education, 38*(4). <https://doi.org/10.14221/ajte.2013v38n4.4>
- Lee, J., Tice, K., Collins, D., Melton, J., Brown, A. L., Smith, C., & Fox, J. (2012). Assessing student teaching experiences: Pre-service teachers' perceptions of their preparedness and efficacy. *Educational Research Quarterly, 36*(2), 3–19.
- Locke, L. F., Silverman, S. J., & Spirduso, W. W. (2004). *Reading and understanding research* (2nd ed.). Sage Publications, Inc.
- Lutovac, S. (2019). Pre-service mathematics teachers' narrated failure: Stories of resilience. *International Journal of Educational Research, 98*(1), 237–244. <https://doi.org/10.1016/j.ijer.2019.09.006>
- Lutovac, S. (2020). How failure shapes teacher identities: Pre-service elementary school and mathematics teachers' narrated possible selves. *Teaching and Teacher Education, 94*(1), 1-11. <https://doi.org/10.1016/j.tate.2020.103120>
- Lutovac, S., & Flores, M. A. (2021). 'Those who fail should not be teachers': Pre-service teachers' understandings of failure and teacher identity development. *Journal of Education for Teaching, 47*(3), 379-394. <https://doi.org/10.1080/02607476.2021.1891833>
- Malloy, W. W., & Allen, T. (2018). Teacher retention in a teacher resiliency-building rural school. *The Rural Educator, 28*(2), 19–27. <https://doi.org/10.35608/ruraled.v28i2.482>
- Mansfield, C. F., Beltman, S., Broadley, T., & Weatherby-Fell, N. (2016). Building resilience in teacher education: An evidenced informed framework. *Teaching and Teacher Education, 54*, 77–87. <https://doi.org/10.1016/j.tate.2015.11.016>
- Mansfield, C. F., Beltman, S., Price, A., & McConney, A. (2012). "Don't sweat the small stuff:" Understanding teacher resilience at the chalkface. *Teaching and Teacher Education, 28*(3), 357–367. <https://doi.org/10.1016/j.tate.2011.11.001>
- Mason, T. C. (1999). Predictors of success in urban teaching: Analyzing two paradoxical cases. *Multicultural Education, 6*(3).
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*(3), 227-238.
- Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). Sage Publications, Inc.

- McKim, A. J., & Velez, J. J. (2017). Developing self-efficacy: Exploring preservice coursework, student teaching, and professional development experiences. *Journal of Agricultural Education, 58*(1), 172-185. <https://doi.org/10.5032/jae.2017.01172>
- Meierdirk, C., & Fleischer, S. (2022). Exploring the mindset and resilience of student teachers. *Teacher Development, 26*(2), 263-278. <https://doi.org/10.1080/13664530.2022.2048687>
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative Research: A guide to design and implementation* (4th ed.). Jossey-Bass.
- Miles, M. B., & Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). Sage Publications, Inc.
- Miller, G., & Wilson, E. B. (2010). Designing field-based and experiential education for preservice teachers in agriculture. In R. M. Torres, T. Kitchell, & A. L. Ball (Eds.), *Preparing and advancing teachers in agricultural education* (pp. 131–141). Curriculum Material Service, The Ohio State University.
- Mitchell, W. J. T. (1981). *On narrative*. The University of Chicago Press.
- Moos, D. C., & Pitton, D. (2014). Student teacher challenges: Using the cognitive load theory as an explanatory lens. *Teaching Education, 25*(2), 127–141. <https://doi.org/10.1080/10476210.2012.754869>
- Pang, C. (2023). Time-stage model of failure. *Journal of Education: Teaching and Social Studies, 5*(3), 176-188. <https://doi.org/10.22158/jetss.v5n3p176>
- Parker, G. (2015). Teachers' autonomy. *Research in Education, 93*, 19-33. <http://dx.doi.org/10.7227/RIE.0008>
- Parker, H. C., Claflin, K., & Bowling, A. M. (2024). Student teacher needs-supporting and -frustrating experiences through guided reflective journaling: A case study of triumphs and tribulations. *Proceedings of the Annual Research Conference*. Annual American Association for Agricultural Education Research Conference, Manhattan, KS.
- Patton, M. Q. (2015). *Qualitative evaluation and research methods*. Sage Publications, Inc.
- Pedota, P. J. (2015). How can student success support teacher self-efficacy and retention? *Clearing House, 88*(2), 54-61. <https://doi.org/10.1080/00098655.2014.998600>
- Pendergast, D., Garvis, S., & Keogh, J. (2011). Pre-service student-teacher self-efficacy beliefs: An insight into the making of teachers. *Australian Journal of Teacher Education, 36*(12), 45–58. <https://doi.org/10.14221/ajte.2011v36n12.6>
- Persaud, I. (2019). Insider and outsider analysis: Constructing, deconstructing, and reconstructing narratives of Seychelles' geography education. *International Journal of Qualitative Methods, 18*, 160940691984243. <https://doi.org/10.1177/1609406919842436>
- Phoenix, D. B., & Haddad, B. (2024). Identifying failure experiences: A case study exploring failure identification in pre-service teacher preparation through constant comparative analysis.

Proceedings of the North Central American Association for Agricultural Education Research Conference, Tulsa, OK, 29-34.

- Piaget, J. (1952). *The origins of intelligence in children*. Norton. <https://doi.org/10.1037/11494-000>
- Pinnegar, S., & Daynes, J. G. (2007). Locating narrative inquiry historically: Thematics in the turn to narrative. In D. J. Clandinin (Ed.), *Handbook of narrative inquiry: Mapping a methodology* (pp. 3-34). Sage Publications, Inc.
- Pinsky, L. E., & Irby, D. M. (1997). "If at first you don't succeed": Using failure to improve teaching. *Academic Medicine, 72*(11), 973–976. <https://doi.org/10.1097/00001888-199711000-00013>
- Plourde, L. (2002). The influence of student teaching on pre-service elementary teacher's science self-efficacy and outcome expectancy beliefs. *Journal of Instructional Psychology, 29*, 245–253.
- Price, T. J., Ferand, N. K., Sewell, E. A., & Coleman, B. M. (2023). Understanding teacher preparation of the past: The student teaching block in agricultural education. *Advancements in Agricultural Development, 4*(3), 66-78. <https://doi.org/10.37433/aad.v4i3.367>
- Pultorak, E. G. (1993). Facilitating reflective thought in novice teachers. *Journal of Teacher Education, 44*(4), 288–295. <https://doi.org/10.1177/0022487193044004007>
- Pultorak, E. G. (1996). Following the developmental process of reflection in novice teachers: Three years of investigation. *Journal of Teacher Education, 47*(4), 283-291. <https://doi.org/10.1177/0022487196474006>
- Rajuan, M., Beijaard, D., & Verloop, N. (2007). The role of the cooperating teacher: Bridging the gap between the expectations of cooperating teachers and student teachers. *Mentoring & Tutoring, 15*(3), 223–242. <https://doi.org/10.1080/13611260701201703>
- Reissman, C. K. (2008). *Narrative methods for the human sciences*. Sage Publications, Inc.
- Retallick, M. S., & Miller, G. (2010). Teacher preparation in career and technical education: A model for developing and researching early field experiences. *Journal of Career and Technical Education, 25*(1), 62–75. <https://doi.org/10.21061/jcte.v25i1.469>
- Rickman, L. W., & Hollowell, J. (1981). Some causes of student teacher failure. *Improving College and University Teaching, 29*(4), 176–179. <https://doi.org/10.1080/00193089.1981.10533707>
- Rohrkemper, M., & Corno, L. (1988). Success and failure on classroom tasks: Adaptive learning and classroom teaching. *The Elementary School Journal, 88*(3), 297–312. <https://doi.org/10.1086/461540>
- Ronfeldt, M., & Reininger, M. (2012). More or better student teaching? *Teaching and Teacher Education, 28*(8), 1091–1106. <https://doi.org/10.1016/j.tate.2012.06.003>
- Sadler, T. D. (2006). "I won't last three weeks": Preservice science teachers reflect on their student-teaching experiences. *Journal of Science Teacher Education, 17*(3), 217–241. <https://doi.org/10.1007/s10972-005-9004-1>
- Saldaña, J. (2021). *The coding manual for qualitative researchers* (4th ed.). Sage Publications, Inc.

- Samuel, M. (2009). On becoming a teacher: Life history research and the force-field model of teaching development. In R. Dhunpath & M. Samuel (Eds.), *Life history research, epistemology, methodology and representation*. Sense.
- Schank, R. (1999). *Dynamic memory: Revisited*. Cambridge University Press.
- Schmidt, M., & Gary Knowles, J. (1995). Four women's stories of "failure" as beginning teachers. *Teaching and Teacher Education, 11*(5), 429–444. [https://doi.org/10.1016/0742-051X\(95\)000118](https://doi.org/10.1016/0742-051X(95)000118)
- Schön, D. A. (1987). *Educating the reflective practitioner*. Jossey-Bass.
- Schön, D. A. (1983). *The reflective practitioner*. Jossey-Bass.
- Schwandt, T. A. (1997). *Qualitative inquiry: A dictionary of terms*. Sage Publications, Inc.
- Seidman, I. (2019). *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (5th ed.). Teachers College Press.
- Simpson, A., Anderson, A., Goeke, M., Caruana, D., & Maltese, A. V. (2023). Identifying and shifting educators' failure pedagogical mindsets through reflective practices. *British Journal of Educational Psychology, 95*(1). <https://doi.org/10.1111/bjep.12658>
- Singh, Y. K. (2008). *Teaching practice: Lesson planning*. APH Publishing Corporation.
- Sinha, T., & Kapur, M. (2021). When problem solving followed by instruction works: Evidence for productive failure. *Review of Educational Research, 91*(5), 761–798. <https://doi.org/10.3102/00346543211019105>
- Smith, K. L., & Rayfield, J. (2017). Student teaching changed me: A look at Kolb's learning style inventory scores before and after the student teaching experience. *Journal of Agricultural Education, 58*(1), 102-117. <https://doi.org/10.5032/jae.2017.01102>
- Solis, J. (2004). Narrating and counternarrating illegality as an identity. In C. Daiute, & C. Lightfoot (Eds.), *Narrative analysis: Studying the development of individuals in society* (pp. 181-199). Sage Publications, Inc.
- Squires, V., Walker, K., & Spurr, S. (2022). Understanding self perceptions of wellbeing and resilience of preservice teachers. *Teaching and Teacher Education, 118*, 1-16. <https://doi.org/10.1016/j.tate.2022.103828>
- Stewart, J., Lambert, M. D., Ulmer, J. D., Witt, P. A., & Carraway, C. L. (2017). Discovering quality in teacher education: Perceptions concerning what makes an effective cooperating teacher. *Journal of Agricultural Education, 58*(1), 280-299. <https://doi.org/10.5032/jae.2017.01280>
- Stroud Stasel, R., & Evans, R. (2023). Eat those words: Flipping understandings of culture shock failure through self-leadership in overseas international schools. *International Journal for Leadership in Learning, 23*(1), 155–184. <https://doi.org/10.29173/ijll36>
- Sudzina, M. R., & Knowles, J. G. (1993). Personal, professional and contextual circumstances of student teachers who "fail": Setting a course for understanding failure in teacher education. *Journal of Teacher Education, 44*(4), 254–262. <https://doi.org/10.1177/0022487193044004003>

- Sudzina, M., Giebelhaus, C., & Coolican, M. (1997). Mentor or tormentor: The role of the cooperating teacher in student teacher success or failure. *Action in Teacher Education*, 18(4), 23–35. <https://doi.org/10.1080/01626620.1997.10463361>
- Surbeck, E., Han, E. P., & Moyer, J. E. (1991). Assessing reflective responses in journals. *Educational Leadership*, 48(6), 25-27.
- Sweet Moore, P., Coleman, B., Young, H., Bunch, J., Jagger, C. (2023). Preservice teachers' perceptions of important elements of the student teaching experience. *Journal of Agricultural Education*, 64(1), 171-183. <https://doi.org/10.5032/jae.v64i1.36>
- Tait, M. (2008). Resilience as a contributor to novice teacher success, commitment, and retention. *Teacher Education Quarterly*, 35(4), 57–75. <https://www.jstor.org/stable/23479174>
- Tamboukou, M. (2012). *From the question of 'what' to the question of 'how' or how to write about the lives of others?*. Retrieved September 2, 2024, from http://eprints.ncrm.ac.uk/3063/1/5.2_From_the_question_of_what_to_how_by_Maria_Tamboukou_notes.pdf
- Tawfik, A. A., Rong, H., & Choi, I. (2015). Failing to learn: Towards a unified design approach for failure-based learning. *Educational Technology Research and Development*, 63(6), 975–994. <https://doi.org/10.1007/s11423-015-9399-0>
- Teng, F. (2019). Understanding teacher autonomy, teacher agency, and teacher identity: Voices from four EFL student teachers. *English Teaching & Learning*, 43(2), 189-212. <https://doi.org/10.1007/s42321-019-00024-3>
- Thieman, E. B., Marx, A. A., & Kitchel, T. (2014). “You’ve always got challenges”: Resilience and the preservice teacher. *Journal of Agricultural Education*, 55(4), 12-23. <https://doi.org/10.5032/jae.2014.04012>
- Thomas, P. (2006). Pre-service practicum teaching in Central Asia: A positive experience for both worlds. *Journal of Social Studies Research*, 30(1), 21-25.
- Thornberg, R., & Charmaz, K. (2014). Grounded theory and theoretical coding. In U. Flick (Ed.), *The SAGE handbook of qualitative data analysis* (pp. 153-169). Sage Publications, Inc.
- Tigchelaar, A., & Korthagen, F. (2004). Deepening the exchange of student teaching experiences: Implications for the pedagogy of teacher education of recent insights into teacher behaviour. *Teaching and Teacher Education*, 20(7), 665–679. <https://doi.org/10.1016/j.tate.2004.07.008>
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805. [https://doi.org/10.1016/s0742-051x\(01\)00036-1](https://doi.org/10.1016/s0742-051x(01)00036-1)
- University of Alabama, College of Education. (1994). *The knowledge base* [Brochure]. University of Alabama.
- VanLehn, K. (1988). Toward a theory of impasse-driven learning. In Mandl, D. H. & Lesgold, D. A. (Eds.) *Learning Issues for Intelligent Tutoring Systems* (pp. 19–41). Springer US.

- van Manen, M. (1995). On the epistemology of reflective practice. *Teachers and Teaching: Theory and Practice*, 1(1), 33-50. <https://doi.org/10.1080/1354060950010104>
- Wang, P., Xiong, Z., & Zhao, Z. (2023). Exploring the relationship between failure-learning-based entrepreneurship education and youth entrepreneurial resilience: A mediated moderation model. *E+M Ekonomie a Management*, 26(4), 51-65. <https://doi.org/10.15240/tul/001/2023-5-001>
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92(4), 548-573. <https://doi.org/10.1037//0033-295x.92.4.548>
- Wenger, E. (1998). *Communities of practice*. Cambridge University Press.
- White, J. J. (1989). Student teaching as a rite of passage. *Anthropology & Education Quarterly*, 20(3), 177–195. <https://doi.org/10.1525/aeq.1989.20.3.04x0658h>
- Wilson, S. M., & Floden, R. E. (2002). *Creating effective teachers – Concise answers for hard questions: An addendum to the report “Teacher preparation research: Current knowledge, gaps and recommendations”*. ERIC Clearinghouse on Teaching and Teacher Education.
- Wilson, S., Floden, R., & Ferrini-Mundy, J. (2001). *Teacher preparation research: Current knowledge, gaps, and recommendations*. Center for the Study of Teaching and Policy: A University of Washington, Stanford University, University of Michigan, and University of Pennsylvania consortium.
- Woods, D. D., & Hollnagel, E. (2006). Prologue. In E. Hollnagel & D. D. Woods (Eds.). *Resilience engineering: Concepts and precepts* (pp. 1-7). Ashgate.
- Zimmerman, B. J. (2002). Becoming a self-regulated learner: An overview. *Theory Into Practice*, 41(2), 64-70. https://doi.org/10.1207/s15430421tip4102_2

Appendix A

Stage 1 Interview Guide

1. Introduction and Thank you
 - a. “Hello, [Participant Name], my name is [PI1]. I am a current graduate student at the University of Nebraska-Lincoln and a former high school agriculture teacher and FFA advisor.”
 - b. “Thank you for participating in this study.”
2. Outline, Structure, and Confidentiality
 - a. “Our conversation today focuses on identifying a failure you faced during your student teaching experience.”
 - b. “This interview will last approximately 20 minutes and is the first of three stages of interviews we will spend exploring your student teaching experience together. At the end of this conversation, we will schedule the second interview to take place in July.”
 - c. “Before we begin, do you have any questions for me?”
3. Questions
 - a. “Describe your overall student teaching experience.”
 - i. *Potential follow-up questions:*
 1. “Do you feel you experienced more challenges or successes?”
 2. “Did you experience any challenges during your student teaching experience?”
 3. If no challenges/failure: “That sounds like great student teaching experience, what things contributed to your success?”
 - b. “Can you recall a specific moment during your student teaching experience when you faced failure?”
 - i. *Potential follow up questions:*
 1. “Why did you identify that as a failure?” (If not addressed in the answer, ask about specific components of your failure definition)
 2. “Why does that moment stick out?”
 3. “Do you recall discussing this moment with your cooperating teacher or anyone else afterwards?”
4. Closing
 - a. “Thank you for sharing your experiences and insights with me today. Your input is invaluable to our study and understanding of the role of failure in the student teaching experience.”
 - b. “We will next meet in July to further explore your student teaching experience. What dates and times work best for you to meet via Zoom?”

Appendix B

Stage 2 Interview Guide

1. Welcome Back
 - a. “Hello, [Participant Name], and welcome back.”
 - b. “Thank you for participating in this study and making time to meet with me today.”
2. Outline, Structure, and Confidentiality
 - a. “To start, have you had a chance to review the transcript and my interpretations and reflections from our first interview together?”
 - i. “Does what I’ve shared resonate and fit with the story you shared?”
 - b. “Our conversation today explores how you reconciled with the failure(s) you described in the first interview.”
 - c. “This interview will last approximately 20 minutes and is the second of three stages of interviews we will spend exploring your student teaching experience together. At the end of this conversation, we will schedule the final interview to take place in August.”
3. Questions
 - a. “How did you approach [the failure you described in our first interview] in the moment?”
 - b. “What did you do in response to [the failure you described in our first interview]?”
4. Closing
 - a. “Thank you again for sharing your experiences and insights with me. Your input is invaluable to our study and understanding of the role of failure in the student teaching experience.”
 - b. “We will next meet in August to further explore your student teaching experience. What dates and times work best for you to meet via Zoom?”

Appendix C

Stage 3 Interview Guide

1. Welcome Back
 - a. “Hello, [Participant Name], and welcome back.”
 - b. “Thank you for participating in this study and making time to meet with me today.”
2. Outline, Structure, and Confidentiality
 - a. “To start, have you had a chance to review the transcript and my interpretations and reflections from our first interview together?”
 - i. “Does what I’ve shared resonate and fit with the story you shared?”
 - b. “Our conversation today explores how you believe you grew from the student teaching failure you described in the first interview and expanded on during the second interview.”
3. Questions
 - a. “Do you believe the failure you described has contributed to your personal and/or professional growth?”
 - i. “If so, how?”
 - b. “How has the failure you described influenced your approach to teaching?”
 - i. “Have you experienced a similar situation since your student teaching experience? How did your initial experience of failure impact how you approached this?”
4. Closing
 - a. “Thank you again for sharing your experiences and insights with me. Your input is invaluable to our study and understanding of the role of failure in the student teaching experience.”
 - b. “After I complete the other Stage 3 interviews, I will begin analyzing our conversations. The complete analysis, including the transcripts of our three interviews and an article write-up will be sent to you on October 18, 2024, for your review. I request that you submit any feedback to me by November 15, 2024. As you prepare your feedback, please consider the accuracy and representation of your contributions, ensuring that your perspectives and experiences are faithfully and respectfully communicated in the write-up.”

Appendix D

Table 1

Data Analysis Codebook

Themes	Categories	Pattern Codes	In Vivo Codes (abbr.)
Navigating failure with support	Cooperating teacher pedagogy	Cooperating teachers encouraged failure	<p>“[CT] threw me all the curveballs at the beginning”</p> <p>“[CTs] weren’t afraid to challenge me”</p> <p>CT: “I want you to fail when you have me as a safety net”</p> <p>CT: “Jump in and do it”</p> <p>“[Cooperating teacher] challenged me”</p> <p>“[CT] kind of enabled it to happen”</p> <p>“[CT] took the like sit back approach”</p>
		Cooperating teachers provided support amid failure	<p>“My CT did like step in for me”</p> <p>“safe place to fail”</p> <p>“Safety net”</p> <p>“[CT] given me that reassurance really just kind of pushed me and gave me confidence”</p> <p>“[CT] had my back when things weren’t going correct”</p> <p>“My cooperating teacher would send me another PowerPoint”</p> <p>“It was comforting in that moment [when CT provided teaching materials]”</p>
		Cooperating teachers encouraged agency	<p>“[CT] really wanted me to take control...and do my own thing”</p> <p>CT: “figure it out on your own”</p>
		Tough love	<p>CT: “Something didn’t work, so what are you gonna do”</p> <p>CT: “This is gonna be hard”</p> <p>CT: “You gotta roll with the punches”</p>
		Best interests at heart	<p>CT: “Go home, have a home life separate from school”</p> <p>CT: “You’re gonna figure [teaching] out”</p>
		Too much support	<p>“[CT support when giving teaching materials] didn’t ever benefit me in the end”</p> <p>“[Relying on CT] didn’t help me build on myself or being a teacher”</p>

Themes	Categories	Pattern Codes	In Vivo Codes (abbr.)
		Ongoing support	<p>“I feel now as if I was really hurting myself”</p> <p>“[CT] helps me a lot like even after [student teaching]”</p> <p>“[support system is] probably one of the reasons why I’m still teaching”</p>
	Value of the cooperating teacher	Valuing cooperating teachers' wisdom	<p>“[CT] was my mentor, and I really wanted to hear what he had to say”</p> <p>“[CTs] did a phenomenal job having kind of thrown me in the fire”</p> <p>“Definitely respected my CT”</p> <p>“The [student teacher-cooperating teacher] relationship aspect is huge for that student teaching experience”</p> <p>“[I] embraced [CT’s] sink or swim motto”</p>
		Valuing cooperating teacher	<p>“Learned with my cooperating teacher”</p> <p>“having somebody as knowledgeable...and experienced as [CT]...made the whole experience a lot better”</p>
		Valuing cooperating teachers' methods	<p>“I’m glad [cooperating teacher] [challenged me]”</p> <p>“I’m really glad [CT] did it this way”</p>
	Use of reflection	Reconciled through reflection	<p>“I lean to self reflection”</p> <p>“I needed to...have a plan”</p> <p>“Used [daily journals] to think about like what went well that day, what I thought went bad”</p> <p>“Your own responsibility to kind of reflect”</p>
		Reflection questions	<p>“How do I better myself so I don’t put myself in a situation like this again”</p> <p>“What could I have done differently in planning”</p> <p>“how I could develop or build on my teaching skills”</p>
		Valuing feedback	<p>“Where did I go wrong”</p> <p>“[University supervisor’s constructive feedback] was a really beneficial moment for me”</p> <p>“I could learn from [failure] with [CT]”</p>

Themes	Categories	Pattern Codes	In Vivo Codes (abbr.)
Experience the reality check of teaching	Facing harsh realities of the classroom	Unprepared for failure	<p>“I also felt comfortable to talk to [CT]”</p> <p>“I haven’t really failed much in my life, so any little minor inconvenience thing seems like it’s failing”</p> <p>“I never needed help [my whole life]”</p> <p>“I sort of like shut down”</p>
		Unprepared for realities of teaching	<p>“I didn’t realize what all it took being a teacher”</p> <p>“Learned the very hard way”</p> <p>“...in college, it’s hard to get like a real understanding of what it’s like to be an ag teacher”</p> <p>“University didn’t prepare me at all for what education actually was”</p>
	Unprepared to teach	University lesson plan issues	<p>“I felt like my lesson plan had to be really, really structured...that’s kind of why I struggled”</p> <p>“It felt like a lot of pressure, like that’s the lesson plan guide we needed to use because that’s what we’ve been taught for the past three and a half to four years”</p> <p>“[The lesson plan structure] kind of like loomed over each of my lessons”</p> <p>“It was just kind of unrealistic the way we lesson planned”</p> <p>“UNL’s lesson plan expectations did give me some anxiety when I was student teaching”</p>
		Failing to prepare	<p>“[I] got into the habit of not like developing lesson plans and curriculum”</p> <p>“I think it was five weeks behind”</p> <p>“I would always lesson plan usually like right when I got there in the morning”</p> <p>“What do I teach today?”</p>
		Failing to know	<p>“Why am I learning more from [students] than [they’re] learning from me?”</p> <p>“I don’t know what to do”</p> <p>“I had no idea what half the words on the animal science slides were”</p>

Themes	Categories	Pattern Codes	In Vivo Codes (abbr.)
Enduring the emotional strain of failure	Emotional strain of failure	Failing to manage the classroom	“Wasn’t sure how to address [behaviors]” “Lost control of a classroom”
		Outside pressure	“I didn’t want to let [students and CTs] down” “You don’t wanna mess up what [CT] already have going [in their classroom]” “these kids are counting on you” “I dogged myself if I couldn’t reach the time limit or if I went over” “A failure just because I wasn’t able just to do it on my own right away” “My moment to shine” “I’m supposed to be the adult” “I set pretty high expectations for myself”
		Personal pressure	“I failed my kids” “It was hard...feeling like I failed the kids” “if I wasn’t gonna be perfect, I was...failing my students”
		Failing students	“[Failure moment is] something that I don’t want to feel again” “Maybe I don’t even want to be a teacher just because I don’t want to student teaching, because what if I mess up” “I was always told that I’m gonna fail, but never like accepted it”
		Desire to avoid failure	“I felt very nervous going to student teaching” “My dad is a teacher, and he’s very put together...I think [pressure] came a little bit from that” “Teaching is hard” Advice: “[Ag teachers] live in the chaos” “[CT] is great at everything” “Making a name for myself”
		Pressures of beginning teachers	“A lot of defeat” “Felt like I was drowning in the deep end of a pool” “It was a lot of anxiety” “Shameful of like the failure” “Difficult for me to ask for help”
		Undesired emotions/feelings	

Themes	Categories	Pattern Codes	In Vivo Codes (abbr.)
	Psychological impact of failure	Difficult to reconcile/move forward	<p>“Don’t really want to share this with other people”</p> <p>“Having to [ask for help] was a big change and different”</p> <p>“I was a little bit guilty that I had to...impede on somebody else’s time”</p> <p>“internal battles of like boundaries”</p>
		Lack of self-efficacy (confidence)	<p>“Don’t always have a lot of confidence”</p> <p>“I wasn’t good enough to do something, because I had to ask for help”</p> <p>“Never felt like I had it in me”</p>
		Lingering impacts	<p>“[Failure moment is] still something that I think about often”</p> <p>“It’ll stick with me forever”</p> <p>“I still don’t think I’m like past [the failure moment]”</p> <p>“still learning how to navigate the big snags”</p>
		Regrets	<p>“In the end it would have built better habits for me”</p>
		Increasing load to prevent failure	<p>“My first year teaching...working on school stuff...so I wouldn’t have failure”</p> <p>“At school from : till about :”</p> <p>“still work pretty hard before and after school [to prevent failure]”</p>
		Burnout	<p>“[not accepting failure] led to some burnout”</p>
		Reconciled failure through added workload	<p>“After that mistake or that failure, I definitely started working a little harder”</p> <p>“Coming home after school and going through the content”</p> <p>“I would use my entire weekend to try to do all these lesson plans”</p> <p>“spent the summer rehashing [curriculum plans]”</p> <p>“Going above and beyond”</p>
Transforming through failure	Growth mindset	Failure/growth mindset	<p>“Liked [students] causing some issues”</p> <p>“[being a goal-oriented person...might also help with [growing from failure]”</p>
		Focused on growth	<p>“I didn’t let [failure moment] bother me for a long time”</p>

Themes	Categories	Pattern Codes	In Vivo Codes (abbr.)
		Growth mindset	<p>“I’m always the type of person that’s looking to be better”</p> <p>“didn’t really wanna fail in the classroom again”</p> <p>“didn’t wanna have a...I’m not prepared moment again”</p> <p>“The first time is the worst time”</p> <p>“You have to continue to try and adapt”</p> <p>CT: “It’s not a failure”</p> <p>CT: “You’re gonna learn from this”</p>
	Resilience as a product of failure	Gaining resilience	<p>“taking that motto...really helped me a lot not experience burnout or fatigue”</p> <p>“I don’t stress about it”</p> <p>“I felt more at ease”</p> <p>“[The failure is] not a struggle at all anymore”</p>
		Improved flexibility	<p>“[Failure moment] helped me think on my feet”</p> <p>“[CT] made me...run into all those snags that helped me learn how to manage”</p> <p>“go with the flow...more”</p> <p>“need to be flexible”</p>
		Prepared for realities of teaching	<p>“Helped me learn like what it’s going to be like as an Ag teacher”</p> <p>“[failure experience] helped out the whole first year...[and] where I am right now”</p>
	Empowerment after reconciling failure	Feeling empowered	<p>“owning my own personal classroom”</p> <p>“Wow...I am helping these kids”</p> <p>“I feel more confident in my abilities”</p> <p>“what I do matters”</p>
		Gaining confidence/self-efficacy	<p>“You’re gonna get more confident with experience”</p> <p>“Restored some faith in me”</p>
		Motivating	<p>“I think back to that moment...as like motivation”</p> <p>“[Failure] pushes you to want to be that great teacher”</p>
		Gaining content knowledge	<p>“[I] knew all the terminology”</p> <p>“Able to explain it a little better”</p>
		Improved classroom management	<p>“[Students] had more trust in me”</p> <p>“from my student teaching experience I learned to structure [classroom management] better”</p>

Themes	Categories	Pattern Codes	In Vivo Codes (abbr.)
		Improved preparation	<p>“my ability to discipline kids...grew a lot”</p> <p>“taught me what details I do need to include in my lesson plans”</p> <p>“I’ve grown a lot in [organization]”</p> <p>“pretty good at [tracking and building up curricular resources]”</p> <p>“[failure moment] prepared me to make sure that I’m ready”</p> <p>“learned to think more about the future”</p>
		More effective teaching	<p>“A lot more consistent”</p> <p>“Made me a better teacher”</p> <p>“[retake policy] helps to meet the students where they are”</p> <p>“[Failure moment] helped me to like problem solve”</p> <p>“I gave them different outlets to learn”</p>
	Mindset shift	Shifting mindset	<p>“you’re better than what you think you are”</p> <p>“I try to be very optimistic”</p> <p>Advice: “keep a box of like good things”</p> <p>“[Failure moment] made me become more reflective”</p>
		Accepting teaching failure	<p>“able to admit my own failure”</p> <p>“that’s the process of getting into teaching and growing”</p> <p>“everybody else is in the same boat and they’re successful”</p> <p>“accepted the fact that...there will be [failure]”</p>
		Adjusting expectations of perfection	<p>“[Failure moment] taught me that not everything’s perfect”</p> <p>“I’m not the only one [who fails]”</p> <p>“Sometimes I’m gonna hit it perfectly...sometimes I’m gonna be completely off...that’s okay”</p> <p>“it’s okay to feel like I’m not an expert”</p>
		Perfection is not possible	<p>“[no expectation] to be flawless”</p> <p>“There’s always things you can improve on as a teacher”</p> <p>“We’re not supposed to be proficient at everything the first time”</p> <p>“Your steps aren’t going to be completely perfect from right to</p>

Themes	Categories	Pattern Codes	In Vivo Codes (abbr.)
			left, but as long as you're moving forward, you're accomplishing the goal"
			"giving ourselves that grace"
			CT: "You can't pretend to like you know everything"
			CT: "You don't have to always have everything planned out to a T"
		Embracing help-seeking habits	"I don't want [not asking for help] prevent me from doing my job and giving the students the best experience"
			"the realization that asking for help was not a weakness"
			"[asking for help] opens a lot more opportunities...to gain even more information"
			"the more I've been teaching, the more I've opened up [to other teachers]"
		Self-compassion amid failure	"Giving ourselves grace"
			"I did the best that I could have"
	Appreciation for failure	Learning by failing	"Real life learning lesson"
			"open up a little bit more to those failures...learned how to get through [them] before"
			"Now, it's...learning from that lesson [instead of being critical of myself]"
			"to learn from something you gotta fail"
		Beneficial for growth	"I've grown quite a bit"
			"You become a better person because of [failure]"
			"[Failure moment] showed me that there's a lot of room for growth"
		Valuing failure experience	"I was thankful that I was put in that [failure] situation"
			"Really fruitful, different experience"
		Valuing failure	"I'm glad it happened during student teaching"
			"The skills you develop from failing end up helping you a lot more in life than being good at everything all the time"
			"You can't succeed without failing a couple of times"

Themes	Categories	Pattern Codes	In Vivo Codes (abbr.)
		Valuing failure in previous coursework	<p>“[Methods of Instruction was] the most like beneficial classes we ever took”</p> <p>“teach in like a realistic environment as soon as possible”</p> <p>“before student teaching...get a taste of [failure]”</p> <p>“[Professors] will tell you that you will fail”</p> <p>“[Professors] give you examples of times that [they failed]”</p>
		Teaching requires effort	<p>“[Failure] showed me that like putting in the hard work now is gonna help pay off later in your teaching career”</p> <p>“You can’t just come [to school]...and show up...you have to put your work in at home”</p> <p>“I’m gonna be successful if I...work hard to the best of my ability”</p>
		Valuing student teaching experience	<p>“Student teaching experience is probably giving you the most real world experience”</p> <p>“Wanted to go to one of the best schools so that I could come out of there being one of the best teachers”</p>

Note: In Vivo Codes preceded by “CT:” indicate a cooperating teacher’s comment as communicated by participants.

Appendix E

Jamie

Navigating with Support

Jamie began his student teaching semester eager to share his passion for agriculture. Having grown up on a family farm, Jamie felt comfortable discussing agriculture, but he soon realized that teaching it was an entirely different challenge. He encountered difficulties while trying to apply theories and concepts in his classroom. His teacher preparation program's lesson plans and instructional strategies often felt detached from the realities of the high school environment, and his efforts to implement them fell short. These setbacks left Jamie feeling uncertain and overwhelmed by the gap between theory and practice.

As Jamie progressed, his cooperating teacher became his safety net, offering reassurance and ongoing guidance. The cooperating teacher would intervene whenever he faced challenges by supplying slide decks, worksheets, lesson plans, and other curricular resources, allowing Jamie to bypass his failures without addressing them directly. He felt that his cooperating teacher supported him and was confident he would be fine if things went awry, but he also missed the opportunity to learn from failure because he sidestepped it completely. Although his cooperating teacher's mentorship provided immediate relief, it also fostered a sense of dependency. Jamie increasingly relied on his cooperating teacher's assistance and resources instead of tackling his failures independently.

Responding to Failure

Despite the overwhelming support from his cooperating teacher, Jamie did not entirely escape his fear of failure. Lesson planning was a constant struggle, and he felt the structure and template he learned at the University of Nebraska-Lincoln loomed over each lesson he taught. This feeling created a source of anxiety as he tried to balance what he believed he was required to do with what he felt would practically work in his classroom. Jamie's cooperating teacher recognized these feelings and intervened by providing ready-made materials, alleviating the expectation for Jamie to create his lesson plans and materials. This approach allowed Jamie to bypass his fears of failure but also came at the cost of his growth.

Pressing Forward

Jamie's student teaching experience seemed to foster a sense of confidence, primarily supported by his cooperating teacher's consistent encouragement. Jamie felt a sense of accomplishment after each day and lesson, reinforced by the fact that his cooperating teacher was there to validate his actions and assist him whenever he needed help. The cooperating teacher also offered career advice to Jamie, suggesting he leave school by 5:00 p.m. each day and minimize work over the weekends to maintain a healthy work-life balance. Feeling confident and accomplished, Jamie embraced this advice and started to reserve lesson preparation and his other responsibilities for the mornings of each school day.

As the weeks passed, Jamie felt increasingly comfortable and capable in his role as a teacher, but these feelings were conditional. He felt secure and assured in his routine, not because he had worked through his failures but because he could avoid them with the help of his cooperating teacher. In reality, the resilience Jamie believed he had built was based on a temporary safety net, not true perseverance. This meant that Jamie missed numerous opportunities to build confidence through his struggles, which had a lasting and challenging impact on him as he transitioned to his own classroom.

Gaining from Failure

Jamie described his first year of teaching as eye-opening, revealing the gaps in his preparation and the limitations of his abilities, both tied to his student teaching experience. Now the primary teacher, he was responsible for lesson planning, classroom management, and addressing unexpected challenges. His cooperating teacher was no longer in the back of the room or available to assist when needed. As a result, he faced an uncomfortable reality check: he realized it was impossible to fulfill his role as a teacher by replicating the same behaviors he exhibited during student teaching. Moreover, his lack of preparation finally made it clear that his over-reliance on his cooperating teacher left him unable to manage independently. At that moment, Jamie recognized his missed opportunities during student teaching.

It stung for him to reflect on this, and Jamie understood that he avoided growth by steering clear of failure due to his cooperating teacher's support. Unfortunately for Jamie, he now feels it is too late to move past this and wishes he had fully engaged in student teaching, failures and all. He realizes that his overreliance was detrimental and did not foster the growth and development of the habits and skills required to teach independently. Knowing this, Jamie views his dependence on his cooperating teacher's support as a significant failure.

Appendix F

Avery

Navigating with Support

For Avery, student teaching was the first occasion during her teacher preparation program when she encountered a challenge that required support from others. This moment occurred during a junior high lesson she believed she was prepared for but realized otherwise when she finished instruction with twenty minutes left. Initially, Avery was reluctant to acknowledge her failure and ask for help, fearing it would signal her teaching inadequacies and weaknesses. As students grew bored and unruly, Avery panicked and sought support and direction from her cooperating teacher. While her cooperating teacher was sympathetic, she offered no assistance during class. Avery pieced together a few YouTube videos to occupy the remaining time but ultimately felt she had let her students down.

Though disappointed, Avery was not surprised by her cooperating teacher, especially since her cooperating teacher's philosophy from day one exuded a "trial by fire" attitude. In fact, before beginning her student teaching experience, the cooperating teacher confessed that their goal was to challenge Avery and provide her with ample opportunities to fail. The cooperating teacher did not take pleasure in Avery's misfortunes but believed it was essential for her to encounter failure while having a safety net to navigate through them before she was on her own in her future classroom. In the aftermath of Avery's struggle, she found her cooperating teacher's advice and guidance most helpful. She was upset with her cooperating teacher for not coming to her aid but valued and respected her for allowing her to experience the failure, a moment Avery described as pivotal to her growth and success as a teacher.

Responding to Failure

Avery believed her failure in the junior high class was rectifiable, and she achieved this by using the feedback from her cooperating teacher. Nevertheless, the experience left a lasting impression on her. Avery began planning for potential failures and revised her lesson plans and classroom strategies accordingly. From that moment on, she entered each period with a backup plan and worked twice as hard to ensure she never faced failure again. Initially, Avery's efforts focused on learning and improving from her failure, but as time passed and she started her career, she felt the need to be perfect and fully independent. Moreover, Avery became obsessed with not failing. Her approach of working twice as hard meant committing to 12-hour days, sometimes on weekends, and dedicating her summer to curriculum and program development. She began her first year of teaching with these habits fully entrenched, caught in a repetitive cycle of setting high expectations, facing failures, increasing her efforts and workload, and ultimately exhausting herself to the point of burnout.

Pressing Forward

When Avery realized she needed the help and support of her cooperating teacher, she felt devastated. Her confidence and belief in her abilities plummeted, leading to compulsive work behavior. Make no mistake: Avery worked through her student teaching failure and grew from it. She rose above the experience by reviewing her lesson plans daily after school and spent her weekends planning upcoming lessons and units to ensure she was prepared for every possible outcome. Her hard work paid off, and she felt more confident in her planning and instructional delivery abilities, yet she remained affected by her failure. Years later, Avery continued to second-guess herself and her efforts, wondering if she was doing enough for the students in her classroom despite feeling overworked and burned out.

Gaining from Failure

When Avery first realized her mistake with her junior high students, she experienced a moment of cognitive dissonance, questioning how so much time could remain in the period despite the care and effort she had put into planning the lesson. Avery then wondered if the university lesson plan she had used for this lesson contributed to her failure. As instructed during her teacher preparation program, Avery developed her lesson plan in extreme detail, accounting for every minute of the 45-minute class period. Although her lesson plan aimed for success, it did not account for the possibility that students might complete assigned work in half the expected time. Consequently, this issue completely threw off both Avery and her plan.

Avery felt her planning method contributed to her failure, especially by discouraging her from modifying her lesson on the fly. She was so focused on her lesson plan and procedures that changing even one step seemed catastrophic; therefore, she refrained from making any adjustments mid-lesson. Reflecting on her experience with her cooperating teacher, she realized the importance of becoming more flexible. As her cooperating teacher suggested, Avery concluded that teaching must be fluid, and she must be willing to adapt when a lesson does not function as intended. Moving forward, she continued to utilize her detailed lesson plan while becoming more comfortable with the idea that her plan might need to evolve. Her experience encouraged her to think on her feet and required her to embrace flexibility, a skill Avery believes she has significantly developed.

Appendix G

Taylor

Navigating with Support

Taylor's university supervisor attended her animal science class midway through her student teaching experience, marking this visit as the second of three. On this particular day, Taylor planned to teach her students about the components of a bovine reproductive tract and then allow them to identify the parts using actual samples she had ordered from the local processing plant. However, there were two "small" problems: first, Taylor lacked confidence in her animal science content knowledge, particularly reproductive anatomy, and second, she forgot to pick up the reproductive tracts from the processing plant. Clearly frazzled, Taylor informed the university supervisor and her cooperating teacher of her issues at the beginning of class. Luckily, she had prepared a slide deck and worksheet for students to use the next day, but she still felt out of her depth content-wise. Taylor made it through the period and received praise from her university supervisor, but she was disappointed in herself.

Taylor met with her cooperating teacher at the end of the day to discuss the animal science lesson and the rest of her school day. This meeting was not unusual, as Taylor and the cooperating teacher met for regular daily debriefs and more substantial reflections on Fridays. The difference between this meeting and the others was this was the first time they needed to discuss an issue she had experienced. Until that lesson, Taylor had been remarkably advanced in all aspects of teaching, so her cooperating teacher was surprised to observe the sudden breakdown. The cooperating teacher was supportive and positive throughout the conversation, asking Taylor questions and offering suggestions when needed. Taylor respected her cooperating teacher and absorbed their wisdom, valuing all feedback. The cooperating teacher told Taylor they were disappointed but emphasized that they believed in her ability to rebound from this moment of failure. They were frank with Taylor, explaining teaching can be challenging, so she needs to roll with the punches of the school day. In the end, Taylor felt reassured and supported by her cooperating teacher, but most importantly, she was motivated to learn from her mistakes.

Responding to Failure

Taylor was grateful she made it through her animal science lesson in one piece but knew she hadn't escaped unscathed. Although her university supervisor was kind and upbeat about the situation, her cooperating teacher's perspective highlighted the pressing need for Taylor to step up her game. For a moment, she panicked and considered throwing in the towel, believing her shortcomings indicated her potential. However, as her conversation with her cooperating teacher progressed, Taylor had a change of heart. It became clear she had faltered and needed to improve, but she was uncertain about what to do next. Taylor feared repeating her mistakes and failing again. Her cooperating teacher emphasized the value of failure and encouraged using the experience to grow, hoping to provide Taylor with some clarity. In response, Taylor decided to embrace these challenges and setbacks. After school, Taylor visited the processing plant to pick up the reproductive tracts. She then spent the rest of her evening studying her notes and resources on reproductive anatomy and functions. The next day, Taylor returned to school completely transformed from the day before. On this second day, she was more confident and excited to teach the animal science lesson, feeling driven and motivated to improve.

Pressing Forward

There was a split second when Taylor considered quitting after her unsuccessful attempt at teaching bovine reproductive anatomy. Thankfully, her cooperating teacher encouraged her and provided the necessary feedback and support to continue. This conversation and feedback motivated Taylor to try again

and learn from her mistakes. Taylor dedicated most of her afternoon and evening to preparing for her second attempt, believing her hard work would pay off the next day. She gained valuable knowledge and became more confident as she spent time educating herself on the subject. Looking back, Taylor credits her cooperating teacher's guidance and perseverance through challenges for her decision to remain in teaching. As a result of her failure and her subsequent actions, Taylor feels more poised and self-reliant, trusting in her ability to overcome any obstacle she faces in the classroom.

Gaining from Failure

Taylor did not anticipate that forgetting a simple errand or not knowing the difference between the uterus and cervix would become pivotal moments in her student teaching experience, let alone her career. Reflecting on her failure, she realized she could not dismiss the moment or make excuses for her mistakes. She recognized she had dropped the ball and felt its weight, but rather than wallowing in her sorrow, she chose to confront the failure. Taylor's cooperating teacher acknowledged her mistake but reframed the situation as an opportunity for growth and development. Taylor then viewed the failure as a stepping stone rather than a roadblock. Even better, she shifted her mindset, embracing her mishap as a tool for learning and personal development.

In the following days, Taylor prepared more thoroughly for her lessons and committed to understanding the content before teaching it. Although her failure revealed her weaknesses and areas for improvement, she embraced them to become a more effective teacher. As a newly employed teacher, Taylor faced the challenge of taking on and teaching other content areas she needed to become more familiar with, such as carpentry and welding. However, this time, Taylor anticipated the problem early and took steps to prepare for these courses by reaching out to neighboring agriculture teachers and attending summer professional development seminars. Aware of this growth, Taylor views her student teaching failure as the foundation of her resilience as a teacher, helping her realize that she possesses the ability to face challenges and learn from them.

Appendix H

Casey

Navigating with Support

Compared to her peers, Casey did not come from an agricultural background and was only slightly familiar with school-based agricultural education. Additionally, it was purely by chance she found herself in the University of Nebraska-Lincoln's agricultural education teacher preparation program, as she discovered the program through a random Google search. Casey recognized early in her program much of her coursework would not come easy due to her limited background and knowledge, so she prepared herself for potential failure. Her attitude reflected a growth mindset as she approached each hurdle with hope for the best while not settling for anything less than learning.

Casey continued to apply this mindset in her student teaching experience, even in the face of adversity. On one particular day, Casey began her natural resources class by discussing the learning objectives and informing the students that they would be completing the unit's final project, a presentation weighing the benefits and drawbacks of fishing limits, with a partner. Initially, the students did not react until Casey clarified that she had already assigned them to their pairs and then shared these group assignments on the screen. In an instant, one student erupted in anger, accused Casey of ignoring their Individualized Education Program (IEP), and incited the rest of the class to revolt. For the remaining thirty minutes of class, Casey attempted to review her expectations and the rubric for the presentation while battling snide comments and occasional bickering. During this time, Casey's cooperating teacher took a "sit back and watch" approach, observing the chaos from the side of the classroom. Finally, the bell rang, and Casey breathed a sigh of relief.

As soon as the last student shuffled out of the classroom, Casey looked to her cooperating teacher and asked for their thoughts. The cooperating teacher began the conversation by identifying what had just occurred as *real* teaching, sharing Casey would likely experience similar moments for as long as she was in the classroom. As Casey reflected on the moment when she had complete control and then, in an instant, lost it entirely, her cooperating teacher reminded her that teaching came with unique challenges. Still, these were not challenges she had not already faced. Though minimal, her cooperating teacher's support prompted Casey to examine her moment of failure with a growth mindset, considering opportunities and ways to learn from the situation and work toward becoming a more effective teacher.

Responding to Failure

Casey's failure was a tough pill to swallow, but only for a moment. Her growth mindset drove her to respond positively, just as she had done countless times before student teaching, by reflecting on her setback. She first asked herself what had gone wrong at that moment. Through these reflections, Casey realized that although she had good intentions by mixing the students up, she ultimately failed her students by unexpectedly introducing the new variable of partner work. Casey also felt she neglected her students' needs, specifically the student's IEP, which stated that the student was only to work alone.

Next, Casey reflected on potential solutions to the problems she created. She decided to modify her strategy by allowing students to work in the pairs to which they had been assigned or to work alone. This way, the work students completed with their partners would be beneficial if they remained together. This change also ensured that students who preferred or needed to work alone, such as those with IEPs, could do so without repercussions.

Finally, Casey shared her reflections and thoughts with her cooperating teacher before implementing her plan. The cooperating teacher was very supportive and praised Casey's effort. They also complimented Casey on the insights she included in her reflection, noting that many teachers, including themselves, might not give the situation a second thought and would avoid addressing it altogether. Casey's positive attitude, growth mindset, and past experiences with failure, combined with the encouragement from her cooperating teacher, enabled her to respond to her failure calmly and confidently – an approach that reaped several benefits the following day in class.

Pressing Forward

Returning to the next school day, Casey was eager to rectify her mistakes from the previous day and better support her students. She recognized her initial actions would affect the subsequent class periods with these students and her rapport with them, so she approached her moment of failure thoughtfully. Before school began, Casey visited the special education classroom and found the teacher and her natural resources student. Casey began by apologizing to both the student and the teacher, admitting her error. She explained she hadn't read the plan thoroughly enough and expressed her regret. Casey shared her plan with the student and the special education teacher, and both felt satisfied with the way forward. Later, at the start of the natural resources class, Casey followed a similar approach by apologizing to the entire class and outlining how the assignment would proceed. All her students were on board with the solution and developed a newfound respect for Casey.

As Casey was leaving school at the end of the day with her cooperating teacher, the high school principal stopped them and asked to speak privately in his office. Nervous, Casey asked the administrator if she was in trouble, to which the principal responded with a big smile. He clarified Casey was not in trouble, and their meeting was for quite the opposite reason. The principal shared how the special education teacher informed him about Casey's performance in class and her actions today, and the teacher was incredibly impressed with her poise and maturity. He also heard similar praises from students during lunch, with many singing Casey's praises. Casey was commended for her integrity, determination, and resilience, as was her cooperating teacher for supporting her during the situation. Nearly an hour later, Casey finally exited the school building, beaming with happiness.

Gaining from Failure

The moment in natural resources class was a valuable learning experience for Casey, and she grew because of it; however, she did not feel the same profound change Taylor did. A few weeks after the challenging moment, Casey traveled to the University of Nebraska-Lincoln for the second of her three on-campus visits. There, she spent a day reflecting on her semester with her peers who were also student teaching.

At the beginning of the day, a faculty member from the teacher preparation program asked each student teacher to identify and reflect on their greatest challenge so far this semester. They then invited each student teacher to share their experiences with the class. Most described horror stories regarding student behavior, difficulties navigating the endless array of curricular resources, or conflicts with their cooperating teachers. However, when it was Casey's turn to share, she diverged from the group's commiserations. She acknowledged her mistake in not assigning partner work in her natural resources class but kindly stated that her experience was not as life-altering as those of her peers. In fact, Casey felt although the experience was challenging during that class period, the setback did not hinder her progress. Intrigued, the same faculty member asked Casey to elaborate, and Casey explained how her long history of challenges and setbacks, both before and during her program, had prepared her for the failure moment. Casey felt strongly about how her previous experiences with failure enabled her to weather the storm of her recent encounter and allowed her to move forward seamlessly.