

**UNPACKING REFLECTION IN TEACHER EDUCATION: HOW TEACHER
CANDIDATES PERCEIVE, EXPERIENCE, AND DEVELOP REFLECTIVE
PRACTICE**

Wafaa Morsy

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ABSTRACT

This qualitative study examines the role of reflective practice in the development of teacher candidates within one Initial Teacher Education (ITE) program in Ontario. Grounded in a constructivist paradigm, the study explores how reflection serves as a bridge between theoretical knowledge and practical teaching experiences, enabling teacher candidates to develop adaptive expertise, critical pedagogical skills, and professional identity. The research was conducted in 2024, nearly a decade after the implementation of Ontario's Enhanced ITE, which expanded program duration and emphasized reflective practice as a cornerstone of teacher preparation.

The study employs a case study methodology, using data from semi-structured interviews, reflective journals, and program documents. Guided by a conceptual framework emphasizing the interplay between theory and practice, data analysis followed an iterative, thematic approach to explore teacher candidates' perceptions and enactments of reflective practices.

Findings reveal that teacher candidates' perceptions of reflection center on its role as a continuous learning and problem-solving tool, while highlighting tensions between formal, program-mandated reflections and informal, self-directed practices. Participants were able to bridge theory and practice, but their critical reflections were less frequent. This research, I conclude, highlights reflective practice as a vital mechanism for professional growth in teacher education. It underscores the need for context-sensitive approach that connects teacher candidates' lived experiences with the realities of classroom teaching. By integrating meaningful reflection into both coursework and practicum experiences, ITE programs can better prepare socially responsive, adaptive, and equity-focused educators, bridging the gap between theory and practice and fostering lifelong professional development.

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CHAPTER 1: INTRODUCTION

We do not learn from experience. We learn from reflecting on experience.

– John Dewey (1933)

Prologue: A Journey of Reflection from Teacher to Researcher

The seeds of this research were sown during my years as a teachers' mentor and trainer, where I found myself at the intersection of advocating for reflective practice and confronting the resistance it often met. I had embraced reflection as a path for professional growth, seeing it as a crucial tool for both personal development and the enhancement of teaching practice. However, the teachers in my team frequently resisted this practice, viewing it as an additional burden rather than an opportunity for growth.

This resistance puzzled me and led me to question whether reflection was truly a burden or if something else was at play. I soon realized that the way reflection was being implemented contributed to this resistance. Teachers were often required to simply 'write' about their lessons without a clear understanding of its purpose, turning reflection into a routine task rather than a meaningful exercise. This mechanical approach stripped reflection of its potential to foster genuine professional growth.

As a result, these reflective exercises often lacked genuine engagement, with teachers completing them out of obligation rather than valuing the process. They rarely revisited their reflections or considered their implications for future lessons.

These observations fueled my curiosity and commitment to integrating reflection more effectively into teaching practice. I began exploring how it could be transformed from a perceived burden into a valuable professional development tool. This thesis delves into the complexities of reflective practice within Initial Teacher Education (ITE), focusing on teacher

candidates because the ITE program is crucial in shaping future educators' professional identities. By examining how teacher candidates learn to reflect and the social processes that influence this learning, I aim to show how reflective practice can be cultivated from the start of a teaching career. Through the voices of teacher candidates, captured in their journals and analyzed through constructivism, this study explores how reflection can evolve into a transformative practice that genuinely contributes to professional growth.

Context

Research by Browning and Korthagen (2023) suggests that the knowledge base student teachers acquire in Initial Teacher Education (ITE) programs often falls short of meeting the demands of dynamic classroom realities (Darling-Hammond et al., 2005; Loughran, 2013; Pomerance & Walsh, 2020; Russell & Martin, 2022; Russell, 2013; Russell & Loughran, 2007)). This disconnect contributes to novice teachers' frustration, leading many to leave the profession within a few years of qualification (Abbott et al., 2019; Amitai & Van Houtte, 2022). For instance, the Canadian Teachers' Federation reported that 30% of teachers leave the profession within the first five years (Carroll, 2018).

Considerable research highlights the gap between theory and practice as a significant factor in this issue. This perceived divide has fueled criticism of teacher education programs, which are often seen as inadequately preparing teachers for the realities of the classroom (European Commission, 2013; Schaack et al., 2022). The theory-practice dichotomy, as it is commonly referred to, has been identified as a key contributor to ineffective practice and high job attrition.

However, instead of viewing the 'tension' between theory and practice as a gap or divide, I adopt Russell and Martin's (2022) notion of 'disconnects' between what student teachers learn

in their programs and their practicum. Viewing this through Freire's (1970) 'praxis' lens, this perspective sees the relationship between theory and practice as a dynamic, two-way process where each influences the other in complex ways.

To illustrate, on-campus classes and practicum are integral to teacher education, with theoretical knowledge providing a foundation for practical application, and practical experience deepening the understanding of theoretical concepts. Reflective practice is crucial in facilitating this integration. Thus, teacher candidates should cultivate *praxis*, a concept emphasizing the reciprocal relationship between theory and practice. This involves grounding teaching practice in theoretical principles while using practical experiences to enhance understanding of those principles.

Research highlights that traditional approaches to teacher education, which focused on merely transmitting pedagogical knowledge, have proven insufficient (Cole & Knowles, 1993; Ellis & Childs, 2019; Hennissen et al., 2017). In response, there has been a shift toward integrating theory and practice, aligning with Paulo Freire's concept of *praxis*, defined as "reflection and action upon the world in order to transform it" (Freire, 2000, p. 51). Praxis emphasizes critical reflection, ensuring that practice is informed by theory and that theory evolves from practice.

Yet, the boundary between theory and practice is often blurred, as teachers themselves act as both practitioners and theorists, continuously refining their practices through reflection. Viewing the relationship between theory and practice as a simple gap oversimplifies this complex interaction. Ted Aoki's (2004) notion of *lived curriculum* provides a deeper lens for understanding this interplay, framing educational knowledge as a living, evolving process co-created through the dynamic relationships between teachers, students, and contexts. This

perspective underscores the importance of ongoing inquiry and reflection in navigating and integrating the complexities of teaching and learning.

Thus, contemporary research increasingly emphasizes an integrated approach, recognizing the interdependence of theory and practice (Burn & Mutton, 2015; Darling-Hammond et al., 2017; Ellis et al., 2023; Hopper & Sanford, 2004; Korthagen, 2017; Loughran et al., 2016; Russell & Loughran, 2007; Socha et al., 2022). This approach advocates using theory to inform and improve practice, while also using practical experience to test and refine theoretical concepts. As Korthagen (2011) proposes, such integration can help teachers navigate their early careers, supporting them in becoming “active participants in their own learning process” (p. 69) through reflection (see also Korthagen et al., 2013; Korthagen & Nuijten, 2017; Meij et al., 2022). This theory-practice dichotomy or ‘disconnect’ presents a key challenge for teacher education, raising questions about how effectively reflective practice can mediate between what is taught theoretically and what is enacted in classroom settings.

Statement of the Problem

Reflection is widely recognized as a cornerstone of teacher education, essential for preparing teacher candidates to sustain their professional competence and well-being throughout their careers (Van Manen, 1995). Research has long “sought to understand the nuances of the indwelling of teacher candidates in the zones between theory and practice” (Ng-A-Fook et al., 2022, p. 352). For instance, the University of Ottawa’s Teacher Education program emphasizes developing *adaptive expertise* in teacher candidates—the ability to apply knowledge flexibly across various sociocultural contexts (Hanna et al., 2019; Timperley, 2012). This expertise is cultivated through reflexive practice, guiding teacher candidates to integrate theoretical and practical knowledge, and critically examine their professional identities (Ng-A-Fook et al.,

2022). However, the role of reflection in bridging the persistent disconnect between theory and practice within the enhanced ITE programs remains underexplored.

The enhanced ITE programs in Ontario, introduced in 2015, were designed to foster deeper learning and bridge the theory-practice ‘disconnect’ through critical reflection (Petrarca & Kitchen, 2017). However, despite these efforts, recent research indicates that the program has not fully achieved its objectives (Kitchen & Petrarca, 2022; Massouti, 2021; Miller et al., 2019; Russel & Martin, 2022; Smyth & Hamel, 2016). The extended program, which now spans four semesters and includes a longer practicum, has been criticized for adding content without adequately addressing the persistent disconnect between theory and practice. This criticism highlights the need for further investigation into the effectiveness of reflective practices in Ontario’s ITE programs.

The enhanced program’s expansion, while intended to improve teacher preparation, may inadvertently perpetuate the ‘divide’ or ‘disconnect’ between theoretical knowledge and practical experience. Russell and Martin (2022) argue that the program’s structures may contradict its research-based intentions, with many teacher educators unintentionally maintaining the separation between theory and practice. This disconnect leaves teacher candidates undervaluing their formal education and questioning the relevance of their coursework to real-world teaching. The program is now “longer but it is not,” as Russell & Martin (2022) caution, “obviously better” (p. 108). “There are many more courses and there is more practicum time, but there is little or no attention,” they continue, “to longstanding issues, including the *disconnects between theory and practice*” (p. 108, emphasis added). Their critique underscores a central tension in teacher education: increasing the quantity of instruction and field experience does not necessarily improve quality when fundamental issues remain unaddressed. This calls into question the

assumption that more coursework and extended practicum time automatically translate into more meaningful preparation for the profession.

Furthermore, while there is a consensus that teacher candidates should engage in critical reflection, the extent, nature, and impact of such engagement within ITE programs remain underexplored, particularly in Ontario. Simply put, there remains little empirical evidence on their effectiveness in helping teacher candidates bridge this divide (Kitchen & Russell, 2012; Massouti, 2021; Russell, 2013; Smyth & Hamel, 2016). The literature also suggests that previous studies have often used vague conceptualizations of reflection, limiting their utility in curriculum development (Cochran-Smith & Lytle, 2015; Miller et al., 2019; Tiainen et al., 2024). As Korthagen (2001) emphasizes, there is a need for precise operationalization of reflection and robust research methods to build theories grounded in empirical data.

While much emphasis has been placed on cultivating reflective practitioners, some Ontario faculties of education have moved toward explicitly framing teacher candidates as *researchers of their own practice*, embedding practitioner inquiry and action research into coursework and practicum experiences (Ng-A-Fook et al., 2022; Kitchen & Russell, 2012). This shift aligns with a more robust understanding of *reflexive praxis per se*—a deeply critical and ongoing self-inquiry into one’s values, positionality, and pedagogical choices within broader sociopolitical and historical contexts. Rather than viewing reflection as a technical skill or routine exercise, this perspective positions it as a foundational stance of ethical and professional engagement. However, the extent to which this teacher-as-researcher and/or inquiry stance orientation is fostered or sustained across enhanced Ontario ITE programs remains underexamined, particularly in relation to how it supports bridging the theory-practice divide.

The primary objective of my doctoral study is to investigate the reflective practices of teacher candidates within an Ontario ITE program, addressing the gap in understanding how reflection connects theory and practice. The central research question focuses on how the term ‘reflection’ is understood, used, experienced, and practiced by teacher candidates studying in an ITE program in Ontario and to what extent the program is successful (or not) in developing a reflective capacity in teacher candidates. To this end, I am drawing on the theoretical frameworks of Dewey (1933), Schön (1983, 1987), van Manen (1977), Freire (1970), and Aoki (2004) to examine pre-service teachers' experiences and understanding of reflection within the context of initial teacher education (discussed further in Chapter 3).

In exploring these questions, it becomes essential to also interrogate the very notion of *program success*—a concept that is often evaluated through quantifiable outputs rather than qualitative growth. While this research aims to provide empirical insights into how reflection is taken up and enacted in an Ontario ITE program, it also critically considers what it means for such a program to be *effective*. Rather than relying on narrow or instrumental measures of success—such as standardized outcomes or content coverage—I conceptualize effectiveness in terms of the program’s capacity to cultivate deep, critical, and sustained habits of reflection. Such habits align with what Zeichner and Liston (2013) describe as *deliberative reflection*, which demands that teacher candidates engage ethically and contextually with the complexities of teaching, rather than applying generalized methods uncritically. This view echoes Cochran-Smith and Lytle’s (2009) argument that teacher education must cultivate an *inquiry stance*—one that views reflection not as a task to complete, but as an ongoing, embedded disposition toward learning, questioning, and transformation. Programs that promote this stance help develop professional agency (Beauchamp & Thomas, 2009), adaptive expertise (Timperley, 2012), and

ethical engagement in diverse sociocultural contexts (Ng-A-Fook et al., 2022; Freire, 1970). From this perspective, the effectiveness of an ITE program lies in its ability to prepare teacher candidates to be both reflective practitioners and critically engaged professionals who are equipped to navigate uncertainty, challenge inequities, and continue learning throughout their careers.

By examining the growth and experiences of teacher candidates throughout their education, this study explores whether an Ontario ITE program fosters reflective practitioners who are not only equipped to sustain their professional health and competence but are also capable of engaging in inquiry and navigating the complexities of the profession. In what follows, I provide an overview of the evolution of teacher education in Ontario to situate this study within the broader history of teacher preparation in the province, with particular attention to the role that reflective practice has played in shaping these developments.

Ontario Teacher Education

Ontario's teacher education system has evolved significantly over time, adapting to societal, cultural, and political changes. The province's journey began with the establishment of its first school in 1798 and the introduction of the Public Schools Act in 1807, which formalized teacher appointments and public funding for education (Harris, 1967). By the 20th century, teacher preparation shifted to universities, enhancing academic rigor and integrating research into practice (Gaffield, 2015). The move toward university-based teacher education, Smyth and Hamel (2016) explain, was a significant shift, influenced by concerns about academic rigor and the professionalization of teaching. The Report of the Minister's Committee on the Training of Elementary School Teachers [MCTEST] (the McLeod Report) (1966) recommended this transition to produce "a scholar and an educated person" (56). As Kitchen and Petrarca (2014)

assert, this marked the beginning of a systematic approach to preparing an educator who is “a participating, creative responsible person who must be skilled in the complexities and subtleties of the educational process in a democratic society” (p. 17). The establishment of the Ontario College of Teachers (OCT) in 1996 further professionalized teaching, introducing accreditation standards and a structured curriculum for teacher education programs (Kitchen & Bellini, 2016; Ontario College of Teachers, n.d). These reforms align with what (Fullan, 1993/2012) describes as the ‘change forces’ driving educational reform, emphasizing accountability, professional growth, and evidence-based practices.

A significant milestone in teacher education was the implementation of the Enhanced Teacher Education Program in 2015. Kitchen and Petrarca (2017) describe it as “the most dramatic change to initial teacher education in Ontario since the late 1960s.” (p. 349). This reform doubled program duration to four semesters and increased practicum days from 40 to 80, providing teacher candidates with more immersive opportunities to engage in teaching practice. The curriculum was expanded to include Indigenous perspectives, mental health, and inclusive pedagogy, aligning with Ontario’s *Equity and Inclusive Education Strategy* (2009) and the *Education Equity Action Plan* (2017) (Kitchen & Petrarca, 2022; Massouti, 2021). These changes reflected the province’s broader commitment to equity, inclusion, and reconciliation, with the goal of preparing educators to meet the diverse needs of contemporary classrooms.

Among these reforms, the integration of reflective practice emerged as a cornerstone of the program, reinforcing its importance in preparing teacher candidates to navigate the complexities of diverse and dynamic classroom environments. Reflection, as both a process and a goal, serves to connect the expanded curriculum and practicum experiences, ensuring that the program’s broader objectives of equity, inclusion, and reconciliation are realized through

actionable and adaptive teaching practices. Rooted in Schön's reflective practitioner model, reflection in Ontario's ITE programs emphasizes both reflection-in-action, which involves real-time decision-making during teaching, and reflection-on-action, where teacher candidates critically analyze their teaching experiences to improve future practice (Russell & Martin, 2022). These reflective practices help bridge the gap between theory and practice, equipping teacher candidates with the skills needed to address systemic inequities, foster culturally responsive pedagogy, and create inclusive learning environments (Danyluk et al., 2023; Kosnik et al., 2006).

Ontario's ITE programs employ various strategies to integrate reflection into both coursework and practicum experiences. Teacher candidates engage in structured reflective activities, such as journaling, case studies, and action research projects, to critically evaluate their teaching practices and beliefs (Buzza et al., 2017). These assignments help candidates connect theoretical knowledge with real-world teaching challenges, fostering professional growth. Self-assessment tools are also employed, enabling candidates to identify areas for improvement and develop adaptive expertise (Darling-Hammond, 2006).

Practicum experiences are another cornerstone of reflective practice. The practicum model spans over 100 days and is structured in three phases: observation, participation, and practice teaching. During these placements, teacher candidates gradually assume more responsibilities, allowing them to build confidence and refine their teaching strategies. Faculty advisors and associate teachers play a crucial role in mentoring candidates and providing consistent feedback that helps bridge theory and practice (Birch & Nelson, 2022). Some institutions, like Tyndale University, have further innovated their practicum designs by incorporating extended observation periods and alternative placement settings, such as rural and

Indigenous communities, to enrich teacher candidates' perspectives and adaptability (Birch & Nelson, 2022; Danyluk et al., 2023).

Collaborative learning environments are integral to Ontario's ITE programs. Cohort models foster a sense of community among teacher candidates, enabling them to engage in peer discussions and group projects. These collaborative spaces encourage shared reflection and the exploration of diverse perspectives, enhancing candidates' understanding of equity-focused teaching practices (Kitchen & Petrarca, 2015; Socha et al., 2022).

Despite its importance, embedding reflection in ITE is not without challenges. Time constraints, heavy workloads, and misalignments between coursework and practicum often limit the depth of engagement in reflective practices. Many teacher candidates view reflection as an additional burden rather than a transformative process, highlighting the need for faculties of education to underscore its long-term benefits (Russel & Martin, 2022; Massouti, 2021). Furthermore, systemic challenges, such as funding cuts and logistical barriers, have complicated the implementation of innovative practicum models (Kitchen & Petrarca, 2022).

To address these issues, Ontario's faculties of education have implemented a range of strategies designed to deepen engagement with reflective practice. Feedback loops among faculty advisors, associate teachers, and teacher candidates ensure that reflective practices are purposeful and actionable (Kitchen & Sharma, 2017). Inquiry-based assignments, including classroom investigations and practitioner research, provide opportunities for teacher candidates to grapple with authentic educational problems while cultivating a culture of inquiry (Buzza et al., 2017; Falkenberg, 2015). Professional development opportunities for faculty members further enhance mentorship practices and reflective methodologies, ensuring that teacher candidates receive consistent support throughout their programs (Brown & Kitchen, 2022).

While these innovations represent important shifts in practice, they must also be situated within the longer and more contested history of teacher education in Ontario. As Ng-A-Fook, et al. (2018) argue, this history includes more than a century of settler colonial curriculum policies that have shaped—and often constrained—the aims and content of teacher preparation. The work of scholars such as Elizabeth Pinto (2012) further calls attention to how colonial legacies and normative assumptions continue to shape the framing of reflective practice in ways that may reproduce rather than disrupt dominant logics. In this light, reflection cannot be treated as a neutral or universally transformative tool, but rather one that requires careful situating within histories of power, curriculum, and identity.

Building on this more critical foundation, some Ontario faculties of education have begun to emphasize the role of reflection in advancing reconciliation and promoting culturally responsive pedagogies. This includes creating space for teacher candidates to critically examine their own positionalities, biases, and responsibilities in relation to Indigenous perspectives (Paterson, 2023). By engaging with Indigenous pedagogies, stories, and cultural knowledge, candidates develop a deeper respect for Indigenous ways of knowing while simultaneously equipping themselves to better address the needs of Ontario's diverse student populations (Danyluk et al., 2023). These efforts signal a shift toward embedding reflection not just as a pedagogical strategy, but as a transformative ethical stance—one that prepares teacher candidates to navigate the complexities of equity, justice, and relational accountability in their future classrooms.

Ontario's teacher education system thus reveals the transformative potential of reflection, while also inviting a more critical and historically informed understanding of its implementation. Embedding reflection across coursework, practicum, and mentorship provides a foundation for

fostering responsive, adaptive, and equity-oriented educators. Yet realizing this potential depends on addressing enduring systemic barriers and engaging with reflection as a situated and evolving practice—one shaped by broader historical, political, and cultural forces.

Overview of the Study

This study focused on exploring the reflective practices of teacher candidates within an Ontario ITE programs. Reflective practice has been recognized as a critical component of teacher education, with the potential to bridge the divide or disconnect between theoretical knowledge and practical application (Schön, 1983, 1987; Van Manen, 1995). Despite its importance, there is a notable gap in understanding how teacher candidates perceive and engage in reflective practice, particularly within the context of Ontario's enhanced ITE programs, which were implemented in 2015 (Petrarca & Kitchen, 2017; Russell & Martin, 2022).

This research builds on the theoretical frameworks of reflective practice (Dewey, 1933; Schön, 1983, 1987), incorporating Aoki's (2004) concept of lived curriculum, van Manen's (1977) exploration of tacit knowledge, and Freire's (1970) notion of praxis. Together, these frameworks highlight the dynamic interplay between theory and practice, emphasizing the lived and often unspoken experiences of teacher candidates, as well as the critical engagement required to transform teaching into a reflective and socially responsive practice. By examining how teacher candidates perceive and enact reflection, this study explores the influence of these practices on their professional identity and teaching effectiveness.

The study aimed to provide empirical evidence on the impact of an Ontario ITE program in promoting deep, meaningful reflection among teacher candidates. To achieve this, this doctoral research employed a qualitative case study approach, combining qualitative data from interviews, reflective journals, and documents. This approach allowed for a comprehensive

analysis of teacher candidates' reflective practices, exploring not only how they engaged in reflection but also how this engagement impacted their teaching practices and professional development.

Through the process of analyzing teacher candidates' reflections and conducting interviews, I aimed to give voice to the participants, highlighting their experiences and insights into how reflective practice supported their transition from theory to practice. This study provided me with a clearer understanding of the nuanced ways in which teacher candidates navigated the challenges of reflection within their ITE program. By engaging directly with the participants' reflective processes, I gained a deeper appreciation for the complexities of developing reflective practice and the factors that either facilitated or hindered this development. Moreover, this research illuminated the critical role that reflective practice played in shaping teacher candidates' professional identities and their capacity to sustain professional growth throughout their careers.

The research specifically addressed the following questions:

1. What does the term 'reflection' mean for teacher candidates studying in the Initial Teacher Education (ITE) program?
2. How do teacher candidates in an Ontario Initial Teacher Education program enact reflexive praxis within their ITE program?
3. What evidence of reflection is demonstrated in teacher candidates' written reflections on their practicum experiences?

By investigating these questions, this study sought to contribute to the ongoing discourse on the effectiveness of reflective practice in teacher education, providing insights that may inform future curriculum development and policy decisions in Ontario ITE programs.

Contributions of Study

This study uniquely contributes to the pedagogy of teacher education, particularly within the context of Ontario's ITE programs. First, it addresses the relative scarcity of research on the impact of promoting reflection in teacher education programs (Korthagen, 2001, 2011; Miller et al., 2018), with a specific focus on Ontario's enhanced ITE programs. By providing empirical data and considering the contextual factors that influence the development of reflective practices among teacher candidates, this study fills a critical gap in literature.

Second, this study contributes to the pedagogy of Canadian ITE programs by advancing an approach toward *holistic* education. This approach emphasizes the importance of educational experiences “that prepare the young to lead good and worthwhile lives” (Phelan et al., 2020, p. 3). By focusing on the holistic development of teacher candidates, the study aligns with broader educational goals that prioritize the formation of well-rounded, reflective practitioners.

Third, the study highlights the role of reflection in counteracting teacher burnout, helping to sustain teachers' engagement and passion for their profession (Schön, 1983). Reflection is shown to assist educators in challenging polarized viewpoints, integrating diverse values and perspectives, and raising critical issues to new levels of awareness in teaching and teacher preparation programs. This contribution is particularly important in addressing the tensions and constraints that can hinder successful education.

Finally, the framework employed in this study provides a broader perspective on teacher candidates' reflective practices and experiences within the ITE program. It shifts the focus from linear cause-and-effect relationships to the complex interplay between theory and practice, emphasizing the lived and often tacit dimensions of teacher candidates' experiences. This framework also examines how reflection, as a critical and transformative process, is shaped by

both individual engagement and the wider socio-educational context. By analyzing how teacher candidates perceive and enact reflective practices, this study challenges conventional views of the theory-practice gap, illustrating how reflection can serve as a dynamic bridge that integrates these domains and supports the development of socially responsive and adaptive educators.

Thesis Outline

This thesis is organized into six additional chapters, each building upon the previous to develop a comprehensive understanding of reflective practice in an Ontario ITE program.

Chapter 2 — provides a detailed examination of reflective practice within Initial Teacher Education (ITE) programs, tracing its evolving definitions and approaches. The chapter begins by exploring foundational perspectives on reflection, drawing on the work of Dewey (1933) and Schön (1983, 1987), and transitions to contemporary expansions of these concepts, including critical and collaborative reflection as pedagogical tools. Various models of reflective practice are discussed, with attention to factors that facilitate meaningful reflection, such as relational and contextualized tools, and the role of written reflection in teacher development.

The literature review further examines the relationship between teacher identity and reflective practice, emphasizing how reflection shapes professional growth. Challenges to implement meaningful reflective practices are analyzed, alongside a discussion of frameworks for exploring levels of reflection, including Kember et al.'s (2008) framework and its practical applications in teacher education.

Chapter 3 — outlines the theoretical and philosophical foundations that guided this study, serving as the foundational map for the research. The chapter begins by exploring the ontological and epistemological stances of constructivism, which shape the understanding of how teacher candidates construct and interpret their experiences. It delves into the relationship between

constructivism and reflection in teacher education, engaging with the ongoing conversation about the complexities and nuances of reflective practice.

The chapter then problematizes the longstanding theory-practice dichotomy in teacher education, emphasizing the need for frameworks that bridge this divide. Building on this foundation, the conceptual framework integrates key theoretical perspectives, including Dewey's inquiry, Schön's reflective practitioner model, Freire's praxis, Aoki's lived curriculum, and van Manen's emphasis on tacit knowledge. These perspectives collectively provide a dynamic lens for examining the interplay between individual reflection, social interactions, and contextual influences in shaping teacher candidates' reflective practices.

The chapter concludes by presenting an integrated conceptual framework for understanding reflective practices in teacher education, illustrating how these theoretical and philosophical stances inform the study's methodology and analysis. Through this framework, the study seeks to capture the complexities of reflective practice and its potential to bridge the gap between theory and practice in an Ontario ITE program.

Chapter 4 — Methodology, details the research methodology employed in this study to explore the reflective practices of teacher candidates within an Ontario ITE program. The chapter begins by outlining the research design, grounded in a constructivist paradigm, and explains how these theoretical foundations informed the qualitative case study approach. It then describes the data collection methods, including semi-structured interviews, written reflection journals, and the analysis of relevant program documents. The chapter also covers the participant recruitment process, emphasizing the use of purposeful and maximum variation sampling strategies to ensure a diverse and information-rich sample. The data analysis procedures are discussed in depth, with a focus on thematic analysis guided by Braun and Clarke's (2022) framework content analysis

guided by Kember et al.'s (2008) framework. These analytical tools were used to systematically identify patterns and themes within the qualitative data, providing a structured yet flexible method for interpreting the findings. The chapter concludes by addressing ethical considerations and the measures taken to ensure the study's trustworthiness and rigor, including triangulation, reflexivity, and transparency throughout the research process.

Chapter 5 — Findings presents the findings from the data analysis, organized around the research questions. The chapter is structured in two parts: Part 1 presents the findings from the interview data, highlighting the themes that emerged from the thematic analysis of interview transcripts, while Part 2 focuses on the written reflective journals of teacher candidates, analyzed through content analysis. Each research question is addressed in turn within these sections. While this chapter focuses on presenting the key themes, the subsequent Discussion Chapter will interpret these findings through the lens of the conceptual framework, providing a deeper understanding of their influence on the reflective practices of teacher candidates.

Chapter 6 — connects the findings to the research questions, providing an in-depth analysis of reflective practices within the broader context of Initial Teacher Education (ITE). The chapter begins by situating reflective practices within the larger institutional and systemic landscape, exploring how constraints and opportunities influence teacher candidates' engagement with reflection. It reframes teacher candidates' understandings of reflection, examining the tension between reflection as a growth mindset and reflection as a compliance-driven task.

Further, the discussion addresses the prevalence of a teaching-centric lens among candidates and investigates how this perspective shapes their reflective processes. It also explores the enactment of reflexive praxis in teacher education, distinguishing between reflection as retrospective—focused on past experiences—and reflection as adaptive, emphasizing

responsive, forward-thinking practices. The chapter unpacks teacher candidates' written reflections to analyze the interplay between theory and practice, highlighting the dynamic and developmental nature of reflection over time.

Key themes include the role of emotions and contextual factors in shaping reflective practices, as well as evidence of critical reflection leading to transformative insights. By drawing attention to these interconnected elements, the chapter provides a nuanced understanding of how reflective practices evolve and contribute to teacher candidates' professional growth, offering insights into how ITE programs can better foster meaningful and adaptive reflection.

In chapter seven, I offer a concluding synthesis of the study's findings and highlight its key contributions to research, particularly in understanding reflective practices within Ontario's ITE programs. The chapter begins with a summary of the study, revisiting its purpose, theoretical framework, and methodology, before outlining its unique contributions to the field of teacher education. Practical implications for enhancing reflective practices in ITE programs are discussed, alongside strategies for addressing systemic and institutional challenges. The chapter also acknowledges the study's limitations and proposes avenues for future research, such as longitudinal studies and comparative analyses. Finally, the chapter concludes with reflections on the research process and its significance, emphasizing the transformative potential of reflection in bridging theory and practice and fostering adaptive, equity-focused educators.

CHAPTER 2: LITERATURE REVIEW

If I have seen further, it is by standing on the shoulders of giants.

– Isaac Newton (1675)

In this chapter, I review existing research literature that addresses key historical and contemporary perspectives on reflective practice in teacher education, examining its evolving definitions, models, and critical approaches. While it engages with foundational figures such as Dewey and Schön, it also intentionally includes the contributions of feminist, decolonial, and culturally situated scholars—such as bell hooks and Marie Battiste—to challenge Euro-Western and male-centered framings of reflection. The chapter situates the study within the current literature on reflective practice, focusing on its role in fostering professional learning and growth and addressing broader social and cultural contexts in education. In the context of Ontario Initial Teacher Education (ITE) programs, professional learning is increasingly understood as a collaborative, inquiry-driven process, while professional growth encompasses the broader, transformative development of teacher identity, ethical engagement, and adaptive expertise. By synthesizing key themes and identifying challenges to meaningful reflection, the review highlights the relevance of this study and its potential contribution to existing research on teacher professional learning.

Evolving Definitions and Approaches to Reflection in Teacher Education

A significant challenge within teacher education is the lack of a clear and consistent definition of reflection (Hatton & Smith, 1995; see also Smyth, 1989). As Rodgers (2002) notes, when it becomes “everything to everybody,” a reflexive praxis then loses “its ability to be seen” (p. 843). Despite being a cornerstone of professional learning and widely promoted in teacher education programs, reflection remains a vague and often misunderstood concept (Clarà, 2015;

Nguyen et al., 2014; Rodgers, 2002). Many curricula claim to foster reflective practice, and teacher educators emphasize the importance of reflective inquiry. And yet, as Russell (2022a) highlights, the specific processes and goals of reflection are rarely fully articulated or systematically implemented. He further explains that this lack of clarity hinders the effectiveness of reflection in shaping teacher practice and student learning, as both pre-service teachers and educators struggle to understand what reflection truly entails and how it can be meaningfully integrated into their professional growth (see also Brookfield, 1995; 2017). Without a clear definition, Zeichner (2010) asserts, reflection risks becoming an empty term or a superficial exercise, rather than a powerful tool for personal and professional transformation.

Building on this challenge, it is essential to explore the key definitions of reflection and reflective practice in order to establish a clearer understanding of how these concepts are applied within teacher education. I will first review the foundational definitions of reflective practice from John Dewey and Donald Schön, whose work laid the groundwork for the field. Dewey's focus on reflection as a systematic, inquiry-based process and Schön's concepts of reflection-in-action and reflection-on-action are key to understanding reflective practice. I will also explore how contemporary scholars have built on these ideas, highlighting the role of reflection in personal and professional growth. This synthesis will offer a framework for understanding and implementing reflection in teacher education.

Dewey and Schön: Foundations of Reflection in Action and Inquiry

Dewey's (1933) classic definition of reflection as "the active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends" underscores reflection as an intentional cognitive process (p. 118). For Dewey, reflection is not a passive review of experiences but

rather a deliberate and systematic approach to making sense of those experiences. This meaning-making process enables learners to identify problems, create hypotheses, and test them through continued action. Dewey's definition underlines the importance of intentionality in reflection and its role in guiding future action. His emphasis on reflective thinking as a means to organize experience to solve problems is critical in the context of teacher education, where teachers analyze their past teaching experiences and make decisions for future improvement. Reflection thus serves as a tool for teachers to continually learn from practice and enhance their pedagogical approaches.

Dewey's definition of reflection has evolved, with new layers added to his original framework. For instance, Rodgers (2002) builds on Dewey's four criteria for reflection—meaning-making, systematic thinking, community involvement, and emotional/intellectual growth—providing a structured approach to understanding and practicing reflection. She explains Dewey's concept of 'readiness' as comprising four key attitudes—whole-heartedness, directness, open-mindedness, and responsibility, stating, "The four attitudes comprise the essential constituents of what Dewey calls readiness to engage in reflection" (p. 862). Rodgers argues that these criteria not only lay the foundation for reflective practice but also guide teaching, learning, assessing, and researching reflection within teacher education. Grounded in Dewey's principles, Rodgers views reflection as serving the larger purpose of individual and societal moral growth: "reflection is not an end in itself but a vehicle used in the transformation of raw experience into meaning-filled theory" (p. 863).

Building on Dewey's ideas and pushing them further, Schön (1983) links reflection not only to professional development but also to problem-solving in practice. He argues that a) much of professional knowledge is gained through experiential learning, or 'doing,' and b)

professionals often know more than they can articulate. Reflective practice, as coined by Schön in *The Reflective Practitioner* (1983) and *Educating the Reflective Practitioner* (1987), is central to professional knowledge. Schön, like Dewey, maintains that reflection begins in professional practice and involves both reflection-in-action (real-time reflection during event) and reflection-on-action (post-event reflection), ultimately leading to reflection-for-action (planning future actions to improve practice).

Schön's (1983) concept of reflection-in-action hinges on the idea of “reframing,” a process where teachers alter their perspectives to see situations in a novel light, especially when faced with challenges in the classroom. Russell and Munby (Munby & Russell, 1992; Russell & Munby, 1991) further explain that reframing occurs when teachers are confronted with a situation that disrupts their initial frame of understanding, prompting them to shift their perception and respond more effectively. They define framing as the process by which teachers set the context for understanding and solving problems in their teaching practice. Reframing, then, is the active process of changing those frames to accommodate new information or situations. Russell and Munby argue that this dual process—framing and reframing—plays a crucial role in the development of teachers’ professional knowledge by helping them interpret and respond to complex classroom dynamics. They assert, “Reflection-in-action presents the data quite differently, so that they appear in a novel frame” (Russell & Munby, 1991, p. 165), emphasizing the transformative potential of reframing in reflective practice.

In the context of teacher education, Russell (2013) further expands on Schön’s ideas by emphasizing the gap between university-based courses and school-based practicum experiences. Russell points out that while Schön’s work has extensively influenced the discussion on reflection and critical reflection in teacher education, “very little of that discussion relates to

school practicum experiences where beginning teachers are able to learn from first-hand experience with the guidance of a mentor” (p. 84). Russell argues that Schön's call for professionals to learn from their experiences, particularly with mentor guidance, is often not fully realized in teacher education programs, where practicum experiences are not always integrated with course content. He suggests that teacher education could benefit from “more direct connections between the two very different learning contexts—courses and practicum” (p. 84). This insight complements Schön's ideas by reinforcing the need for reflection-in-action and reflection-on-action to be more directly linked to the lived, practical experiences of beginning teachers.

Expanding the Concept: Contemporary Perspectives

Building upon Dewey and Schön's foundational ideas, several scholars have advanced the concept of reflection in teacher education, expanding its scope and emphasizing its transformative, critical, and dynamic nature. Their contributions highlight the multifaceted role of reflection in not just improving teaching practices, but also fostering social change, personal growth, and the development of professional identities.

A central theme among these scholars is the focus on critical reflection. Paulo Freire (1970), in his work on critical consciousness, linked reflection to the ability to perceive and act upon social, political, and economic contradictions, aiming to transform oppressive realities. Reflection, for Freire, is more than a cognitive process—it is a tool for social change through praxis, the fusion of reflection and action, urging teachers to challenge and disrupt inequities in education. Similarly, Tinning (2009) extends this understanding by underscoring the role of reflection in developing critical consciousness. He argues that teachers should reflect not only to improve their practice but also to engage with the political dimensions of education,

acknowledging the broader social and educational systems that shape teaching and learning. Tinning's perspective complements Freire's, reinforcing the idea of reflection as a means to promote social transformation in education.

Zeichner and Liston (1996) expanded reflection to encompass moral, ethical, and social dimensions, urging teachers to reflect not only on their practices but also on the broader political contexts in which they teach. They emphasize the need for teachers to use reflection as a means of confronting societal injustices and promoting social justice through education. Both Freire and Zeichner and Liston underscore the political and social imperatives of reflection, viewing it as a means for teachers to engage with power dynamics and educational inequalities.

On his part, Mezirow (1991) introduced the concept of transformative learning, which emphasizes how reflection leads to a fundamental shift in how individuals perceive the world and their role within it. He argues that critical reflection on assumptions allows individuals to alter their frames of reference, fostering both personal and professional transformation. In teacher education, this perspective underscores the importance of reflecting not only on what teachers do but also on why they do it, which allows for deeper insights into their values, beliefs, and practices. Mezirow's concept of transformative learning enables teachers to evolve in both their skills and professional identities.

Similarly, Fook and Gardner (2007) extended this idea by arguing that reflection should not be limited to personal growth but should also serve as a tool for transformative practice. They emphasize that teachers must reflect on how their practices are shaped by—and shape—the societal structures in which they operate, with a particular focus on power dynamics within education. Their work aligns with Mezirow's view, encouraging teachers to critically engage

with the political and social dimensions of their teaching, in order to foster broader societal and educational change.

Shulman (1987) and Calderhead (1989) view reflection as an integral part of a teacher's development, though they frame it slightly differently. Shulman's emphasis is more on the teacher's ability to reconstruct and re-enact their teaching. Shulman (1987) describes reflection as a process where teachers "look back at the teaching and learning that has occurred" and reconstruct, reenact, or recapture events, emotions, and accomplishments. He emphasizes reflection as a way for teachers to learn from their experiences, specifically in the context of their teaching practice. This process helps teachers improve their future practices by analyzing and making sense of their past teaching. Similarly, Calderhead (1989) focuses on the role of reflection in helping teachers make sense of their teaching experiences and integrate that understanding with their personal values and beliefs. Calderhead describes reflection as a tool for teachers to analyze their instructional methods and improve them by connecting theory to practice. Calderhead is more focused on the integration of teaching experiences with personal and professional beliefs. Both perspectives highlight reflection as an ongoing, dynamic process central to a teacher's development. This view aligns with Moon's (2013) constructivist perspective, which frames reflection as a cyclical process involving active engagement with experiences, followed by analysis, and then re-engagement with the learning process. They all emphasize reflection as a critical tool for meaning-making, where teachers actively construct knowledge from their experiences, enabling them to refine their practices. Together, their perspectives demonstrate reflection as a key mechanism in professional growth and the ongoing development of teaching expertise.

Brookfield (1995; 2017) further developed critical reflection as a means to deepen teachers' understanding of their teaching practices. He identified four critical lenses—teachers' own experiences, students' experiences, colleagues' perspectives, and theoretical literature—through which teachers should reflect. Brookfield's model advocates for teachers to question assumptions and explore alternative perspectives, encouraging reflection from multiple viewpoints. This comprehensive approach has been pivotal in moving teachers beyond personal introspection, urging them to engage critically with the wider educational community.

Other scholars have expanded the concept of reflection by emphasizing the importance of considering both positive and challenging teaching experiences. Janssen et al. (2009) argue that reflection should not be limited to critiquing failures but should also involve reflecting on successful moments, effective strategies, and strengths. This broader perspective helps teachers build on their successful practices while addressing areas for improvement. Similarly, Korthagen and colleagues (Korthagen et al., 2001; Korthagen & Nuijten, 2017; Korthagen & Vasalos, 2005) highlight the need for teachers to reflect not only on their professional skills but also on personal core qualities, such as emotions, trust, and commitment. Their work underscores the interconnectedness of personal and professional development learning, emphasizing that teachers' personal growth is essential for their overall professional growth.

Reflecting on all these contributions, it is clear that the concept of reflection has evolved from Dewey's foundational idea of reflective thinking as a systematic, cognitive process into a much more dynamic, transformative, and socially-conscious practice. This expanded view encompasses reflection's role in enhancing professional practice, challenging societal inequities, and fostering deeper personal growth and critical consciousness. The integration of multiple perspectives on reflection—cognitive, emotional, social, and political—offers a holistic approach

to teacher growth, where reflection serves as a tool not just for improving individual practice but also for engaging with broader educational and social issues. As Russell (2022a) asserts, in teacher education, reflection is vital for both learning to teach and improving teaching practices. Teaching reflective practice requires a recognition that learning theory is incomplete without personal teaching practice. Teacher candidates must reflect critically on their experiences, as learning from practice is not a passive process but an active one of inquiry and adaptation (Russell, 2022a).

While the evolution of reflection in teacher education has drawn on a wide range of theoretical perspectives, it is important to acknowledge the limitations and contextual boundaries of these frameworks. Much of the foundational literature—particularly the work of Dewey, Schön, and their successors—emerges from Euro-Western traditions and reflects specific epistemological assumptions. This raises critical questions about the generalizability of reflective practice across diverse cultural, national, and historical settings. For instance, Hofstede's (1980) cultural dimensions theory suggests that reflection may be experienced differently in individualist versus collectivist societies, where attitudes toward self-criticism and authority vary. Similarly, Nguyen and Baldauf (2010) demonstrate how cultural norms in Vietnam influence pre-service teachers' engagement in or resistance to reflective practices. Educational structures and practicum models also differ widely, shaping how and when reflection is supported or constrained (Zeichner, 2002; Smith & Lev-Ari, 2005). Hixon and So (2009) and Iredale et al. (2020) further illustrate how technological and institutional resources can mediate reflective engagement in context-specific ways.

Reflection may hold different meanings and purposes in communities where teaching is relational, collective, or informed by Indigenous or non-Western knowledge systems (Andreotti,

2011; Zeichner, 2010). Feminist, Indigenous, and decolonial scholars—including bell hooks (1994) and Battiste (2013)—have critiqued the dominance of individualistic and rationalist framings, offering alternative views that center relationality, resistance, and embodied knowledge. Without attention to these dynamics, teacher education risks reproducing normative understandings of reflection as universally applicable or politically neutral. A critical disposition requires teacher educators to interrogate whose voices are centered, what kinds of knowledge are valued, and how reflective practices can be reimagined in ways that are more culturally situated and socially just (Brookfield, 2017; Tinning, 2009; Freire, 1970).

Given these complexities, this study adopts a constructivist paradigm and a critically reflexive stance, treating reflection as a socially constructed, culturally mediated, and politically situated process. While engaging with foundational thinkers such as Dewey and Schön, the study also draws intentionally on feminist and decolonial scholars—such as bell hooks, Marie Battiste, and Fook and Gardner—to challenge dominant, Euro-Western framings. These perspectives reposition reflection as not only a cognitive act but a deeply relational and ethical practice shaped by context, identity, and power. Focusing on one Ontario ITE program, the study foregrounds teacher candidates' lived experiences and the institutional and cultural forces that shape their understandings and enactments of reflective practice. This localized inquiry aims to offer insights that challenge dominant narratives and contribute to more inclusive, context-sensitive approaches to reflective practice in teacher education.

Models of Reflective Practice

Reflective practice in teacher education places a significant emphasis on the central role of experiential learning and the cyclical nature of reflection. Fuentealba Jara and Russell (2023) highlight that “learning from experience is at the heart of reflective practice” (p. 2), noting its

transformative potential when applied to teaching. Building on this foundational understanding of reflective practice, various models have been developed to structure and deepen the reflective process in teacher education. These models provide frameworks for systematically engaging with experiential learning, encouraging both novice and experienced educators to analyze their practice, question assumptions, and foster transformative growth.

Kolb's (1984) Experiential Learning Cycle is a prime example of a cyclical model. It begins with *Concrete Experience*, where learners engage in direct experiences, such as teaching practices. This is followed by *Reflective Observation*, in which learners critically reflect on their experiences, analyzing what worked, what did not, and why. In *Abstract Conceptualization*, teachers develop new ideas based on these reflections, which they then test in the *Active Experimentation* (Kolb, 1984). The process repeats, fostering ongoing professional development. Kolb's model, aligned with Bandura's (1977) cognitive theory, highlights how reflection shapes teaching strategies and influences personal beliefs and behaviors. Woolfolk (2016) explains that "personal factors, behaviors, and the environment are in constant interaction" (p. 439), reinforcing the reciprocal nature of reflective learning in teaching.

Similarly, Gibbs' (1988) Reflective Cycle builds on this framework by providing a structured reflection process, starting with experience description and moving through feelings, evaluation, analysis, conclusions, and action planning. This model is particularly useful for beginning reflective practitioners as it provides clear steps for reflection before engaging in deeper analysis (Suphasri & Chinokul, 2021).

Boud, Keogh, and Walker (1985) proposed a more holistic model of reflection, emphasizing the emotional, cognitive, and behavioral dimensions. They outline three stages: Return to Experience, Attending to Feelings, and Re-evaluation of Experience. This model

stresses the importance of engaging with the emotional aspects of reflection, allowing for deeper personal and professional growth.

Hatton and Smith's (1995) levels of reflection further categorize the depth of reflection in teacher education. Their model progresses from basic descriptions to critical, transformative reflection. At the highest level, critical reflection involves questioning assumptions and examining teaching practices within broader social, ethical, and political contexts. This model underscores the importance of deep, critical reflection for meaningful growth and change in teaching.

Korthagen's ALACT and Onion models add further layers to the reflective process in teacher education by considering both the cognitive and emotional dimensions of teaching (Korthagen et al., 2001; Korthagen & Vasalos, 2005). The ALACT model consists of five stages: Action, Looking Back, Awareness of Essential Aspects, Creating Alternatives, and Trial. This model advocates for a cyclical approach that encourages teachers to continuously reflect and adapt, guiding them toward what Korthagen (2001) calls "practical wisdom" (p. 671). Reflection embedded in this model, Browning and Korthagen (2023) assert, leads to "significant changes in teachers' classroom behavior and in their professional identity" (p. 3). Additionally, Korthagen and Vasalos's (2005) Onion Model represents reflection as a series of concentric layers, starting with external aspects like behavior and competencies, and progressing inward to the deeper levels of beliefs and identity. Korthagen and Nuijten (2017) emphasizes that reflecting on these deeper layers—especially identity and mission—facilitates core reflection, helping teachers reconnect with their core attributes. This process fosters *flow* (Czikszentmihalyi, 1990), which in turn supports a more natural and accelerated learning process (Korthagen et al., 2013). Core reflection focuses more on reconnecting with the deeper levels of the onion model and creating

new possibilities, rather than extensively analyzing the problematic situation within its existing framework (Miller et al., 2019).

Farrell's (2003) framework builds on these models by focusing on three stages of reflection: descriptive (recounting what happened), dialogical (questioning and analyzing experiences), and critical reflection (questioning assumptions and integrating theory). Farrell emphasizes that the goal of reflection is not only to improve practice but also to challenge underlying beliefs and biases, contributing to deeper professional development and transformative learning, enabling them to reflect both in action and on action (Farrell, 2003, 2015). Farrell and Macapinlac (2021) further refine this approach for TESOL teachers, emphasizing the importance of feedback and self-awareness in developing reflective practitioners (Farrell & Macapinlac, 2021).

Together, these models offer comprehensive frameworks for teacher education, encouraging teachers to engage in reflection that is not only analytical and systematic but also deeply connected to personal and professional growth. Promoting reflection that is analytical, systematic, and linked to personal and professional growth. This aligns with Day's (1997) view that professional development includes both natural learning and planned activities that enhance educational quality. Through reflection, teachers can build self-awareness, refine their practice, and foster transformative education (Day & Gu, 2010).

Critical Reflection as Pedagogy in Teacher Education

Reflection is a cornerstone of teacher education, facilitating personal growth and professional development. As Harfitt and Chow (2020) assert, learning from experience lies at the heart of reflective practice, enabling educators to evaluate their teaching strategies while critically examining the social and political forces that shape educational contexts. Through

critical reflection, teachers can engage with the complexities of their roles, particularly at the intersections of power, identity, and pedagogy.

This process, however, is not without its challenges. Brookfield (2017) aptly observes, “To some extent, we are all prisoners trapped within the frameworks we use to assign meaning to our experience” (p. 61). This highlights a central dilemma in reflective practice: teachers are often constrained by their existing mental frameworks and preconceptions, which influence how they interpret and respond to their experiences. Such constraints can hinder their ability to fully engage with or critique the power dynamics and social identities embedded in their practice.

For reflection to be truly transformative, it must move beyond surface-level evaluation. Teachers must cultivate a deeper awareness of the assumptions underpinning their frameworks and actively interrogate the systemic forces that shape their teaching. This intentional and critical approach to reflection not only fosters self-awareness but also empowers educators to navigate and challenge the power structures inherent in educational spaces.

This challenge underscores the importance of defining pedagogy in a way that encourages continuous self-examination and growth. Van Manen (2002) offers a nuanced definition of pedagogy as “constantly distinguishing more appropriate from less appropriate ways of being and interacting with young people” (p. 17). Pedagogy, then, is a dynamic, reflexive process, where teachers are not simply delivering content but engaging in a continuous act of reflection and critical inquiry, questioning their own teaching methods and the broader social contexts in which these methods are applied. This process aligns closely with Paulo Freire’s (1970) concept of praxis informing the present study, which emphasizes the interconnection between reflection and action in education. Freire argues that true education cannot be separated from the act of critical reflection; instead, it requires an ongoing dialogue

between theory and practice. According to Freire, praxis involves not only reflecting on one's experiences but also acting upon those reflections to challenge social injustices and create transformative change in the classroom and society at large. Thus, pedagogy becomes an act of praxis, where teachers are engaged in both critically reflecting on their practice and transforming it to foster more equitable and just learning environments. This approach highlights that pedagogy is not static; it is a critical, evolving practice rooted in a commitment to social change and the empowerment of both educators and students.

The relational nature of teaching further strengthens this framework. According to Loughran (2013), "personal relationship between teachers and students is crucial as identity formation and personal growth combine to shape the nature of pedagogy itself" (p. 2; see also Browning & Korthagen, 2023). As Brookfield (2017) argues, the most important pedagogic knowledge teachers need is an awareness of how their students are experiencing learning; without this knowledge, we are working in the dark. Fuentealba Jara and Russell (2023) add to this by emphasizing the importance of reflective practice in the teacher education practicum, showing that when teacher candidates critically reflect on their experiences, they are better able to understand the social dynamics at play in the classroom. This not only fosters self-awareness but also encourages teachers to align their pedagogical choices with the realities of their students' lives. The identities of both teachers and students influence how they engage in the educational process, and reflection serves as a mechanism to understand and negotiate these identities. Reflection allows educators to examine how their personal beliefs, cultural backgrounds, and social roles influence their teaching, helping them develop a more inclusive pedagogy that respects and acknowledges the diverse experiences and identities of their students (Brookfield, 2017). As Zeichner (2010) argues, critical reflection enables teachers to align their beliefs with

their actions, ensuring their pedagogical choices are consistent with values of equity and social justice.

In this study, pedagogy is not treated as a static method of instruction but as a dynamic, relational, and interpretive process enacted through reflection. Rather than separating pedagogy from reflection, I understand reflection itself as a pedagogical act—one that unfolds in the lived complexities of teaching, where teachers continually make sense of their experiences, values, and ethical responsibilities. As van Manen (1991), Loughran (2006), and Zeichner and Liston (1996) argue, pedagogy emerges not merely in what teachers do, but in how they understand and respond to the moral and social dimensions of teaching. Reflection, then, is where pedagogy becomes visible, questioned, and reimaged in pursuit of more inclusive and just educational practices.

Extending this understanding of critical reflection as a dialogic and ethical stance, some scholars have emphasized the importance of framing teacher candidates as *researchers of their own practice* (Cochran-Smith & Lytle, 2009; Jacobs et al., 2015; Kitchen & Russell, 2012; Loughran, 2004; Loughran, 2007; Zeichner, 2010). This *teacher-as-researcher* stance encourages teacher candidates to engage in *reflexive praxis per se*—that is, to move beyond routine or instrumental reflection and adopt a sustained inquiry into their own positionalities, pedagogical assumptions, and the broader social and political contexts that shape education. Rather than viewing reflection as a task to complete, this orientation treats it as an embedded disposition toward learning and unlearning—an approach aligned with Freire's (1970) vision of education as both reflective and transformative. When teacher candidates see themselves as researchers, they are invited to take up a critical, investigative stance toward their own teaching, allowing reflection to become not only a means of improving practice, but a tool for challenging

inequities and generating new forms of knowledge from within their lived experiences. This orientation toward the teacher as a critically reflective inquirer opens the door to broader conceptions of education as a transformative and emancipatory practice.

Building upon this, hooks (1994) emphasizes that education must be viewed as the practice of freedom, where reflective practice enables teachers to critique the power dynamics within the classroom and beyond, fostering an environment that challenges inequality and promotes social justice. In this way, pedagogy becomes not only a means for individual transformation but also a catalyst for broader social change, with reflection serving as the driving force for both personal growth and collective empowerment in education. To achieve this transformative potential, Dewey (1933) and Schön (1983a) underscore the importance of reflection in problem recognition and inquiry, both of which are vital for developing a pedagogy of teacher education. Dewey explains that reflection begins with perplexity or doubt, where the recognition of a problem prompts inquiry. This initial doubt encourages teachers to critically engage with their experiences, seeking solutions that align with their ethical standards and pedagogical goals. Building on Dewey's ideas, Schön introduced the concepts of framing and reframing, which highlight the dynamic nature of reflection. Framing involves interpreting a situation from a specific perspective, while reframing requires the ability to view the situation from alternative viewpoints. This perspective-shifting allows teachers to move beyond surface-level thinking and engage with broader questions related to their practice, particularly regarding power dynamics, social identities, and pedagogical effectiveness (Brandenburg et al., 2017; Schon, 1983a).

Tinning (2020) further stresses that the goal of reflective practice in teacher education is not simply to develop technical competencies but to engage in reflective thinking that fosters

transformative learning. Reflection should lead to self-understanding, allowing teachers to critically examine their beliefs and values, aligning them with their pedagogical practices. As Loughran (2006) insists, teacher educators must confront their own assumptions and seek understanding derived from experience, or risk reducing teacher education to a mere transmission of knowledge and technical skills. Without this commitment to deep reflection, teacher education risks becoming prescriptive, failing to foster the transformative learning essential for a socially responsible pedagogy.

In this regard, Liu (2015) advocates for reflective practices that promote transformative learning by encouraging teachers to engage critically with their teaching experiences and personal values. Transformative learning, as Liu suggests, involves not only changing teaching strategies but also evolving professionally and personally through deep, ongoing reflection on the broader social and ethical dimensions of teaching. This aligns with the idea that teacher education should integrate theory and practice, fostering reflective practitioners capable of navigating complex educational contexts and contributing to social justice in education.

Critical reflection at the intersections of power, identity, and pedagogy is thus central to the development of teachers who are not only effective practitioners, but also ethical agents committed to fostering equity and social justice. By engaging with theories of reflection from Dewey, Schön, Loughran, van Manen, and others, teacher educators can foster a pedagogical environment that encourages teachers to critically examine the relationships between teaching, learning, and the broader societal contexts in which they operate. This approach ensures that teacher education is not simply about developing technical skills but about cultivating reflective, critically engaged educators who are prepared to meet the diverse needs of their students and contribute to transformative change in education.

Factors Facilitating Reflection

Several interconnected factors contribute to effective reflective practices in teacher education, enhancing teachers' capacity to critically engage with their experiences and grow both personally and professionally. These factors include relational and collaborative elements, structured tools and strategies, and the integration of reflection into teachers' evolving professional identities.

Relational and Collaborative Reflective Practice

Reflection is a relational process that unfolds both internally and through interactions with others. Building strong, trusting relationships between teacher candidates and facilitators—mentors, peers, or supervisors—is crucial to fostering meaningful reflective practice. Research studies (Edwards-Groves et al., 2020; Harrison et al., 2005; Tonna et al., 2017; Walters et al., 2020) highlight that the relationship between learners and supervisors acts as a key mechanism for reflective change, suggesting that trust and rapport must be established before structured reflection can be effective. In teacher education context, Russell (2022a) emphasizes that a positive relationship between teacher candidates and their educators is essential for encouraging reflection, as it allows candidates to express vulnerabilities and engage in meaningful self-examination. When teacher candidates feel supported, they are more likely to explore their assumptions, confront uncertainties, and challenge their beliefs.

Creating a safe, supportive, and blame-free environment is fundamental to fostering honest and open reflection. Dahl and Eriksen (2016) argue that individuals must feel free to express their thoughts and emotions without fear of judgment in order to engage deeply with the reflective process. Facilitators who create such environments enable learners to feel valued and understood, which enhances the quality of their reflective engagement. Fanning and Gaba (2007)

stress that facilitators must possess qualities such as genuineness, acceptance, empathy, and open-mindedness to build this type of environment. They also highlight the importance of facilitators modeling reflective practice themselves, demonstrating vulnerability and transparency to encourage teacher candidates to do the same.

Social collaboration further strengthens reflective practice by providing diverse perspectives and mutual support. Teachers benefit from working within communities of practice where they can share experiences, challenge assumptions, and learn from others (Cravens & Wang, 2017; Escamilla & Meier, 2018). Collaborative reflection enables teachers to see their practice from different angles, which can help them refine their teaching approaches and broaden their understanding. Bjuland et al. (2012) highlight that reflective narratives within supportive communities significantly enhance teachers' professional identity by providing spaces for them to process their experiences and receive constructive feedback. Additionally, Yoon et al. (2010) found that collaborative reflection through dilemma cases helps preservice teachers better understand practical challenges, particularly in science education, by encouraging critical analysis and problem-solving in real-world contexts.

Interactions with more experienced facilitators are another key factor supporting reflective practice. Marshall et al. (2022) highlight the value of engaging with experienced colleagues, noting that peer learning opportunities allow novice teachers to benefit from the practical wisdom of seasoned mentors. These interactions encourage teacher candidates to critically analyze and adapt their teaching strategies, fostering a deeper understanding of their professional roles and responsibilities (Heirdsfield et al., 2008).

Providing initial feedback is essential in helping teacher candidates engage more deeply with reflective journaling. However, Good and Whang (2002) emphasize that reducing

candidates' dependency on facilitators over time is equally important, encouraging autonomy and self-directed reflection as candidates become more familiar with reflective practices.

Feedback that stimulates critical thinking, clarifies uncertainties and highlights areas for growth is particularly valued by teacher candidates (Lee, 2005). Effective feedback fosters trust and motivates teacher candidates to engage more thoughtfully with their reflective journals, further strengthening their reflective habits (Stevens & Cooper, 2023).

Both Russell (2018) and Kane (2007) underscore the necessity for teacher educators to model reflective practice and articulate its relevance to professional learning. Russell reflects on his 35 years of experience and notes that teacher educators often fail to make the reflective process visible or to explain how reflection contributes to professional development. As a result, teacher candidates may complete their programs with a muddled understanding of reflection, perceiving it as an obligatory task rather than a transformative tool. To make reflection meaningful, educators must model the process, connect it directly to teachers' learning journeys, and demonstrate how it leads to sustained growth and improvement.

Purposeful and Contextualized Tools for Reflective Practice

Effective reflective practice also depends on the use of structured tools and purposeful strategies that guide teachers in examining and improving their teaching. Tools such as reflective journals, writing assignments, feedback sessions, and action research play pivotal roles in promoting critical reflection when aligned with clear goals and processes (Pihlaja & Holst, 2013). These tools help teachers document their growth, critically evaluate their experiences, and bridge the gap between theory and practice.

Russell (2022a) highlights the importance of structured reflective assignments in fostering meaningful engagement. His five-part written assignment, "*The Story of My Year*

Learning to Teach,” encourages teacher candidates to reflect at significant points in their teaching journey. By documenting their evolving teaching practices and insights, candidates are able to recognize their growth over time, fostering deeper engagement in reflective processes. Similarly, techniques like exit tickets prompt metacognitive reflection by encouraging teacher candidates to assess their learning and identify areas for further improvement (Russell, 2022a).

Further, reflection is most effective when it is purpose-driven, with a clear link to professional goals such as improving student outcomes or promoting equity and social justice (Benade, 2015; Escamilla & Meier, 2018). Teachers are more likely to engage in meaningful reflection if they see its relevance to their ongoing development. Holincheck & Galanti (2023) illustrate how weekly reflection-in-action and reflection-on-action assignments, particularly in STEM education, help teachers deepen their understanding of practice, adjust their teaching strategies, and strengthen their professional identity.

Innovative tools such as photovoice have also emerged as powerful methods for fostering reflection. Photovoice encourages teachers to visually document their experiences and share their insights within communities of practice, promoting professional identity formation and enhancing critical reflection (Ardi et al., 2023; To, 2020). Another effective method is simulation-based learning, which allows teachers to connect theory to practice in real-world scenarios. Chernikova et al. (2020) conducted a meta-analysis across higher education domains and found that simulations are particularly valuable for developing complex teaching skills. Incorporating different types of scaffolding during simulations further enhances reflective engagement by enabling teachers to address dilemmas in real time and apply new strategies with greater confidence.

Action research is one way to operationalize reflection as a structured, rigorous process involving intellectual discipline and scientific inquiry. By engaging in systematic inquiry, teachers can generate hypotheses, test them through their teaching practices, and make data-informed adjustments to improve their pedagogy (McDonough, 2006). This approach aligns with Dewey's (1933) view of reflection which emphasizes that reflection is not merely introspection but a process of continuous experimentation and refinement. Through action research, teachers bridge theory and practice, fostering ongoing professional growth and meaningful improvements in their teaching.

Contextualizing reflection to align with teachers' evolving identities and professional goals further enhances its effectiveness. Chen et al. (2023) argue that professional development programs should be tailored to promote self-reflection and continuous improvement in ways that remain relevant to teachers' specific challenges and contexts. When reflection is personalized and meaningful, it fosters sustained engagement and long-term growth.

Teacher Identity and Reflection

Teachers who integrate reflection into their professional identity are more likely to engage deeply in the process and use it to make meaningful changes in their teaching (Loizou & Recchia, 2018). This personal and professional alignment strengthens reflection by fostering a sense of purpose and commitment to continuous improvement.

Building *reflective capacity* is central to this process. Priddis and Rogers (2018) define reflective capacity as the ability, desire, and tendency to engage in reflective thought about teaching practices. Teachers with a strong reflective identity are more likely to critically evaluate their beliefs and align their practices with their values. This process moves them beyond surface-level reflections, allowing them to address the complexities of teaching in diverse educational

contexts. Building reflective capacity not only deepens teachers' understanding of their own practices but also connects their reflection to broader social and ethical issues in education. This connection is critical for fostering transformative reflection that goes beyond personal improvement to address systemic challenges. As teachers develop a reflective identity, they become better equipped to navigate the complexities of their roles while engaging with social justice principles that shape their practice and influence the learning experiences of their students (Benade, 2015; Kane, 2007; Zeichner & Liston, 2013).

Kane (2007) emphasizes that grounding teacher education in social justice further enhances teachers' reflective capacity. By critically examining how social justice principles are enacted in their pedagogy, teacher candidates can interrogate their positionality and the broader societal structures influencing their practice. This type of reflective inquiry strengthens professional identity by helping teachers see their role as agents of change within the education system. Teachers who identify as reflective practitioners are more likely to pursue equitable teaching practices that challenge systemic inequalities and promote inclusion. This type of reflective inquiry strengthens professional identity by helping teachers see their role as agents of change within the education system, particularly when reflection is approached not only as personal introspection but also as a form of inquiry into practice—what some scholars frame as a *teacher-as-researcher* stance (Cochran-Smith & Lytle, 2009; Zeichner, 2010). This reflective-inquiry stance lays the groundwork for deeper forms of engagement, such as Transformative Critical Reflection, which foregrounds the ethical, political, and social dimensions of teaching.

Engaging in Transformative Critical Reflection (TCR) affords teachers curricular and pedagogical opportunities to reconsider their personal beliefs, values, and professional roles in light of broader social and ethical contexts (Fook et al., 2015). TCR encourages teachers to

question power dynamics, privilege, and cultural norms that shape their work (Brookfield, 2017). This process moves beyond technical teaching practices, encouraging teachers to address the ethical and social dimensions of education.

Effective reflection involves balancing intellectual and emotional engagement. Rodgers (2002) emphasizes that reflection should be more than a cognitive exercise; it should also engage teachers' emotions, values, and beliefs to foster holistic development. Fathi and colleagues (2021) assert that emotion regulation and self-efficacy also influence the development of a reflective teacher identity. They found that teachers with strong emotional regulation skills are more capable of engaging in reflection without becoming overwhelmed by the emotional demands of teaching. This ability to manage emotions enhances reflective capacity and helps teachers sustain engagement in reflective practices over time. Additionally, self-efficacy plays a crucial role in shaping teachers' beliefs about their ability to grow through reflection. Teachers with higher self-efficacy are more confident in their ability to address challenges and make meaningful changes to their practices. This balance of intellectual and emotional engagement allows teachers to align their personal and professional identities with their teaching practices, making reflection a transformative tool for both personal and professional growth (Fathi et al., 2021).

Ultimately, teachers who embrace reflection as part of their identity are better equipped to navigate the challenges of teaching, maintain emotional well-being, and foster continuous professional growth. Transformative reflection not only shapes teachers' approaches to their work but also promotes equitable, socially conscious teaching practices that contribute to the broader goals of education.

Challenges to Meaningful Reflective Practice

Reflective practice often faces significant barriers that limit its effectiveness. These challenges stem from structural constraints within institutions, time pressures, assessment-driven tasks, and cultural influences. When reflection becomes superficial or performative, it loses its transformative potential, preventing teacher candidates from engaging in meaningful self-examination and professional growth. Addressing these barriers requires understanding the various factors that hinder authentic engagement in reflective practice and developing strategies to overcome them.

One of the most significant barriers to reflective practice in Teacher Education programs is the lack of time. Teaching practicums often impose heavy administrative and teaching responsibilities on pre-service teachers, leaving them with little time to engage in meaningful self-reflection. Suphasri and Chinokul (2021) argue that reflection requires dedicated time and space for self-analysis and self-evaluation, but pre-service teachers often feel overwhelmed by classroom management, lesson planning, and adapting to student needs. These practical concerns take priority, resulting in reflection being viewed as an optional or time-consuming task (Finlay, 2008). Without adequate time, reflection may become rushed or incomplete, reducing its potential for critical engagement and professional growth (Allen & Wright, 2014; Asmare et al., 2024; Soodmand Afshar & Farahani, 2018).

In their study on pre-service teacher experiences in Australian teacher education programs, Allen and Wright (2014) found that time constraints during practicum placements, driven by the demands of lesson planning, classroom management, and administrative tasks, significantly limited pre-service teachers' capacity to engage in deep and meaningful reflection on their teaching practices. Similarly, Hourani (2013) highlights that pre-service teachers in the

Emirates College for Advanced Education faced multi-layered practicum tasks and language barriers, which made meaningful reflection difficult. The study found that limited time and support led to superficial reflections, where teachers focused on recounting events rather than analyzing their teaching critically. This aligns with findings from Afshar and Farahani (2018), who emphasize that heavy teaching loads and rigid syllabi in Iranian language institutes left teachers with insufficient time for reflective inquiry, reinforcing superficial and disconnected reflection practices.

Another significant barrier to meaningful reflective practice is the use of reflection as an assessment tool. When reflective assignments are linked to grading or institutional performance standards, pre-service teachers may approach reflection strategically, tailoring their responses to meet evaluation criteria rather than exploring their teaching authentically (Hallman, 2011; Hourani, 2013). This assessment-driven reflection often leads to formulaic and shallow reflections that fail to challenge assumptions or engage critically with broader educational theories (Gillies & Boyle, 2011; Hobbs, 2007). Shoffner (2008) notes that pre-service teachers often feel constrained by academic conventions when engaging in reflective writing, producing surface-level responses that lack depth and critical engagement. Instead of fostering transformative reflection, reflection becomes a performative task aimed at satisfying institutional expectations (Kosmanou & Vassilaki, 2023).

The performative nature of reflection is further reinforced by institutional cultures of performativity. Ball (2003) warns that external accountability systems in education encourages teachers to engage in cynical compliance, where reflection becomes a task to meet external targets rather than a tool for genuine self-improvement. This performativity leads teachers to present idealized accounts of their teaching rather than critically examining their actions and

beliefs. Kosmanou and Vassilaki (2023) describe this phenomenon as ‘sunshining’, where pre-service teachers produce overly positive reflections to satisfy evaluators, avoiding meaningful critique of their failures. Similarly, Gillies and Boyle (2011) found that teachers altered their reflections to present positive accounts of cooperative learning experiences, suggesting a degree of performance or compliance with institutional expectations.

Feedback also significantly influences the quality of reflective practice. Pre-service teachers need constructive feedback and critical dialogue to develop their reflective capacity, but many mentors and supervisors lack the necessary training to guide reflection effectively (Russell & Korthagen, 2013; Suphasri & Chinokul, 2021). Maksimovic and Osmanovic (2018) stress that reflection should be seen as a cooperative process, where pre-service teachers engage in dialogic conversations with understanding listeners—mentors, peers, or supervisors—to refine their thoughts and develop a nuanced understanding of their teaching. However, without clear communication and structured guidance, reflection may become a disconnected or meaningless task (Allen & Wright, 2014). Power dynamics between supervisors and pre-service teachers can further complicate the reflective process, as supervisors' expectations often dictate the content and tone of reflections (Hallman, 2011). This can lead pre-service teachers to focus on appeasing evaluators rather than engaging in genuine self-examination.

The theory-practice disconnect is another persistent challenge that contributes to superficial reflection. Pre-service teachers often struggle to apply theoretical knowledge gained in university courses to real-world classroom situations. Zeichner (2002) highlights that pre-service teachers frequently feel frustrated and lack confidence in their teaching abilities when they cannot bridge the gap between abstract theory and practical application. This disconnect is particularly evident in written reflections, which tend to focus on formulaic descriptions rather

than critical analysis of how theory informs practice (Shoffner, 2008). Kosmanou and Vassilaki (2023) found that student teachers often revert to traditional, teacher-centered practices when faced with real classroom challenges, even after being trained in innovative approaches such as project-based learning.

Cultural and educational contexts also play a role in shaping reflective capacity. Fuertes-Camacho et al. (2021) found that reflective capacity differs across cultural contexts, depending on teachers' exposure to reflective practices in their local school systems. In education systems that prioritize rote learning or performance-driven practices, teachers may be less inclined to engage in critical reflection. Lingard and Gale (2010) argue that cultural expectations and historical legacies shape how teachers perceive their roles and engage in reflection. In contexts where teaching has traditionally been viewed as a technical task focused on implementing prescribed methods, teachers may be less likely to engage in critical, adaptive reflection. These long-standing cultural norms can hinder pre-service teachers from developing authentic reflective practices, resulting in shallow engagement with reflective tasks (Gale & Lingard, 2010).

Cultural influences also play a role in how pre-service teachers approach reflection as a compliance-based task rather than a tool for personal growth and inquiry. Institutional pressures reinforce strategic reflection, where pre-service teachers aim to satisfy assessment requirements rather than engage in authentic self-examination (Gale & Lingard, 2010). This performative nature of reflection often arises when mentors and supervisors fail to provide adequate scaffolding and support, leaving student teachers confused about what constitutes meaningful reflection (Russell & Martin, 2013).

Ultimately, time constraints, assessment-driven practices, cultural influences, and the theory-practice disconnect all contribute to the challenges of meaningful reflective practice in teacher education. Without dedicated time, constructive feedback, and context-specific guidance, pre-service teachers are likely to engage in mechanical, compliance-driven reflections, which limits their ability to grow as reflective practitioners. Addressing these barriers requires purpose-driven engagement and opportunities for critical dialogue, ensuring that reflection becomes a transformative process for professional development (Brookfield, 1995, 2017; Hallman, 2011; Maksimovic & Osmanovic, 2018; Russell, 2022b, 2022a).

The Role of Written Reflection in Teacher Growth

The literature on teacher education highlights several approaches that facilitate reflection, including journals, diaries, action research (Cochran-Smith & Lytle, 2015), practical experience (Korthagen et al., 2001), collaborative talk (Farrell, 1999;), critical friendship (Russell, 2022b) and self-observation (Farrell, 2006; Loughran, 2002), among others. Hoover (1994) asserts that reflecting on a lesson through written recollection and analysis allows preservice teachers to continuously review and reevaluate their interactions with students (p. 84). Hoover's study focuses specifically on how reflective writing serves as a window into the cognitive processes of preservice teachers. The study suggests that reflective writing helps to make visible the thought processes and decision-making strategies of teachers, offering valuable insights into their development. This type of writing encourages preservice teachers to examine their teaching practices, recognize patterns in their thinking, and foster self-awareness, thus playing a crucial role in their professional development (Hoover, 1994). Building on Schon's notions of reflective practice, Munby and Russell (1991) note that reflective writing allows teachers to examine their teaching from various perspectives, such as how personal beliefs, classroom dynamics, and

institutional constraints shape their practice. Thus, written reflection is seen as a key component of reflective teaching, allowing teachers to examine their teaching practices and align them with their educational values (Zeichner & Liston, 2013). It serves as a tool to articulate these insights, helping teachers assess their teaching methods, identify areas for improvement, and integrate educational theory into practice (Elliott, 1989).

As teacher candidates engage in coursework and field placements, written reflections—such as journals, autobiographies, teaching portfolios, and self-observations—help connect educational theory to real-world teaching practices. Slade et al. (2019) found that reflective writing enhanced candidates' understanding of course content, especially when teaching students from diverse backgrounds, such as those living in poverty. It helped bridge theoretical knowledge with real-world applications, particularly in classroom dynamics, instructional planning, and student development. Response journals, as Lee (2005) notes, allow candidates to critically reflect on their experiences and engage deeply with course content, a process that is further supported by collaborative discussions (Fullan, 2007). These reflections enable teachers to align their practices with new teaching paradigms, leading to sustainable changes in their teaching. Abednia et al. (2013) highlight how reflective journals help teachers connect theory with their personal experiences, fostering a deeper understanding of classroom issues. Initially viewed as a task, reflective writing became an integral professional development tool for many teachers, who later recognized its value for gaining insights into their practices (Kosmidou & Sfyroera, 2023).

Studies show that written reflections support the development of professional knowledge that is both personal and applicable in different teaching contexts. Bereiter et al. (2002) emphasize the role of written reflection in the knowledge-building process in the “knowledge

age.” Written reflections become a way for teachers to articulate their learning, develop new perspectives, and refine their pedagogical approaches. Bereiter and colleagues connect reflective writing to the creation and application of knowledge, advocating for reflective practices that move beyond rote learning and encourage deeper cognitive engagement. They propose that reflective writing allows teachers to explore and challenge their existing mental models, which is crucial for knowledge building. The study highlights how teachers, by engaging in reflective practice, can create a dynamic, evolving framework of understanding that improves their ability to solve educational problems and innovate in the classroom. Burton et al. (2001) and Daloglu (2004) note that journals help teacher candidates personalize their learning and take ownership of their development by critiquing and evaluating their beliefs and actions, which enhances their awareness of teaching and learning. In the same vein, Farrel (2016) found that journaling helped pre-service teachers increase their self-awareness of their teaching practices and better evaluate their effectiveness. Through this, Slade et al. (2019) assert, reflective writing fosters a greater understanding of how classroom dynamics, such as socio-economic class and socio-cultural backgrounds, influence teaching outcomes. Written reflections allowed teacher candidates to express their understanding of key teaching competencies such as classroom management, student engagement, and curriculum design. These reflections were aligned with professional standards and provided measurable evidence of growth over time (Slade et al., 2019).

Writing helps teachers articulate their evolving understanding of what it means to be a teacher, which is essential for forming a solid teaching identity (Brownlee et al., 2011; Day & Gu, 2010). Reflective writing encourages teachers to critically examine their assumptions, question their methods, and engage with their beliefs about teaching, allowing them to align their

teaching practices with their personal values, experiences, and educational philosophies (Daloglu, 2004; Farrell, 2006; Farris & Fuhler, 1996; Korthagen et al., 2001).

In a study conducted by Kosmidou & Sfyroera (2023), teachers were asked to engage in reflective writing by documenting critical events and educational interventions, particularly those related to diversity and anti-bias strategies. This process was found to foster critical thinking and self-awareness, prompting a shift from a technical focus on teaching methods to deeper self-reflection on their roles and interactions with students. Such a shift is crucial for developing a professional identity grounded in empathy, social justice, and equity, helping teachers better understand their roles and beliefs while encouraging changes in their teaching strategies (Kosmidou & Sfyroera, 2023; Slade et al., 2019). Similarly, Lee (2005) notes that journaling helped teacher candidates develop a more sophisticated professional identity. They moved from simply recalling classroom experiences to critically evaluating their practices and ideologies.

This process enabled them to align their teaching strategies with their personal beliefs about teaching and learning. These findings align with Ho and Richards (1993), who assert that reflective journaling helped teachers review their practices, enrich their understanding of students, and better face teaching challenges.

Exploring Levels of Reflection: A Framework-Based Approach

Studies by Grandwohl and Schumacher (1989) highlight that meaningful engagement with written material is key to learning, suggesting that reflection is most effective when it prompts teachers to engage with their beliefs and teaching practices. This aligns with other studies which emphasize the importance of reflection in teacher development (see among others Fook, 2012; Korthagen et al., 2001; Lee, 2005; Loughran, 2002; Russell & Loughran, 2007; Zeichner & Liston, 2013). When teachers articulate their rationale for actions and examine their

beliefs, they engage in professional inquiry. Smyth (1989) describes this as a process where “they are really recapturing the pedagogical principles of what it is they do” (p. 6). However, he cautions that reflective writing “is not an end in itself; it is a precursor to uncovering the broader principles that are informing (consciously or otherwise) their classroom” (p. 6). This process of making tacit knowledge explicit affords teachers pedagogical opportunities to uncover deep-seated assumptions and bring them to the forefront for critical examination. Smyth (1989) further explains that developing an awareness of one’s ‘personal biography and professional history’ enables teachers to identify the factors that limit or constrain them, bringing underlying assumptions about the educational process into clear focus for critical examination. Through this reflective practice, teachers can merge their personal experiences with their professional practices, promoting both personal and professional development.

Given the complexity of the reflective writing process described above, it is clear that reflections can vary in depth and impact. Some reflections lead to profound insights, while others remain more superficial. This variability is supported by studies, such as those by Kember et al. (Kember et al., 2008) and Hatton and Smith (Hatton & Smith, 1995), who demonstrate that the depth of reflection in teacher candidates' writing can range from basic descriptions to critical, transformative analysis.

In the following section, I examine Kember et al.'s (2008) framework, which I use in this study to analyze the written reflections of teacher candidates. This framework, widely utilized in teacher education, provides a scale for assessing the depth of reflection in teacher candidates' work. It highlights how reflective writing helps candidates move beyond surface-level thinking, enabling them to engage in deeper, more transformative learning. Through this process, teacher

candidates develop a more sophisticated understanding of teaching and foster a stronger sense of professional identity.

Kember et al.'s (2008) Framework

Kember (1999) selected four categories based on previous studies that validated earlier reflective frameworks (Colaizzi, 1973; Mezirow, 1991; Powell, 1989; Sparks-Langer et al., 1990). These studies revealed that having too many categories made it challenging for coders to reach agreement when coding text segments, while too few categories limited the ability to distinguish between different types of reflection in a written piece. The protocol also allows for the use of intermediate categories. These sources provided the conceptual and practical foundations for Kember's own coding system, which aimed to measure the quality of reflective thinking in students' written journals. This model emphasizes the progression from automatic behavior to critical examination of underlying beliefs and contexts through four distinct levels:

Habitual Action (Level 1). At this level, reflection is basic and superficial, with teacher candidates simply describing events without critical analysis. These reflections are routine, focusing on what happened rather than exploring the reasons behind it or connecting it to broader concepts. There is no critical examination of underlying assumptions, making this level the least reflective.

Understanding (Level 2). Reflections at this level show an understanding of events but remain surface-level. Teacher candidates reflect on what they did and why, but their analysis is limited, often focusing on teaching strategies, classroom dynamics, or student reactions without offering deeper insights into implications or reasons.

Reflection (Level 3). At this level, reflections are more sophisticated and involve critical thinking. Teacher candidates connect theory to practice, exploring what happened, why, and

considering alternatives. They critically assess teaching methods, classroom strategies, and pedagogical theories, and begin to connect teaching to broader educational beliefs.

Critical Reflection (Level 4). This is the highest level of reflection, where teacher candidates critically examine their actions, beliefs, and practices to challenge and change them. It involves questioning deep-seated assumptions about teaching, considering social, cultural, and ethical implications, and analyzing teaching in the context of societal issues, educational theories, and personal beliefs, leading to personal transformation and socially responsible teaching.

This framework is primarily concerned with how students engage with their teaching practices and personal beliefs, evaluating the complexity and sophistication of their reflective writing based on the level of critical engagement with the content (Kember et al., 2008). In contrast, approaches that frame critical reflection as a process of asking questions and solving problems related to social inequities emphasize the transformative potential of reflection to address societal and structural issues, particularly in education. These approaches, such as those proposed by scholars like Brookfield (1995, 2017) and Freire (1970), stress that critical reflection should lead to an examination of power dynamics, social justice, and educational inequalities.

The key difference between Kember et al. (2008) and these critical perspectives lies in their focus. Kember's framework is more concerned with the cognitive and intellectual aspects of reflection, with an emphasis on how deeply students engage with their teaching practices and whether they can transform their understandings of teaching and learning. This framework can certainly accommodate the questioning of social inequities as part of the reflective process, but it does not prioritize this as a central feature of critical reflection.

In contrast, approaches grounded in critical pedagogy place a strong emphasis on social change and the political dimension of reflection. These approaches view critical reflection as an essential tool for understanding and disrupting the structures of power that impact students' lives and learning experiences. While Kember et al.'s framework evaluates the level of reflection, critical pedagogy evaluates whether reflection leads to actionable changes that address systemic injustices (Brookfield, 1995, 2017; Friere, 1970).

Thus, while Kember's framework is more focused on the cognitive development of reflective thinking, critical reflection in terms of social justice and equity pushes reflection to a more socially conscious level, encouraging teachers to use reflection not just for personal growth but for systemic change within educational settings. The present study adopted a critical reflection approach that emphasizes integrating theory with practice and the open-mindedness required to reassess one's beliefs (Kember et al., 2008).

Practical Application of Kember's Framework in Teacher Education

Kember et al.'s (2008) framework has been widely used and validated in educational contexts including the context of teacher education. Slade and colleagues (2019) used Kember et al.'s (2008) framework to assess the level of reflection in the written reflections of 186 teacher candidates in a course on developmental sciences and poverty. Three raters independently reviewed the reflections, achieving 90% inter-rater reliability. The reflections were analyzed using Kember's four-category scheme and content analysis to examine their developmental level and how often they addressed key teaching competencies. The efficacy of the reflections was also measured by their incorporation of course content and personal connections to field experiences.

Results showed that 25% of reflections were at the Habitual Action level, 56% at the Understanding level, 18% at the Reflection level, and only 1% at the Critical Reflection level. Level 4 reflections included applying skills to future teaching and recognizing the societal impact of teaching, while Level 1 reflections focused on basic classroom management and building student relationships. This study highlighted the importance of fostering deeper, more critical levels of reflection to enhance teacher candidates' professional growth and understanding of the teaching process, especially in addressing challenges faced by students in poverty.

Kerns (2014) utilized Kember's framework to assess the reflective writings of eight English teacher candidates following classroom inquiry. These candidates, enrolled in a secondary English teacher education program, produced teacher-research essays based on their designed and implemented instructional units.

The essays were analyzed using Kember et al.'s (2008) four-category protocol. Each essay was coded according to the highest level of reflection observed, allowing researchers to classify the overall depth of reflection. The findings revealed that the majority of reflections were at the nonreflection level for a total of around 62%. This was followed by the understanding level, which comprised nearly 33% of the reflections. Reflection was less common, making up approximately 5% of the responses, while critical reflection was rare, at only 0.22%. These results indicate that while some candidates reached higher levels of reflection, most remained at lower levels, highlighting the need for strategies to foster deeper reflective thinking.

In the same vein, Harland and Wondra (2011) used Kember's framework to examine the depth of reflection in the written responses of 67 preservice teachers during their clinical placements. The study, conducted within a post-graduate teacher education program, focused on

how these teachers engaged with and reflected upon their teaching practices and experiences in local schools. It analyzed two types of written assignments: reflective blogs and final reflective papers, both documenting and evaluating their clinical experiences.

Of the 67 preservice teachers, 43 participated in reflective blogging, while 24 submitted reflective papers. The study found most reflections fell within the Understanding and Reflection levels, with a notable contrast between the assignments: 30% of blog writers reached Level 3 (Reflection), compared to only 8% of paper writers. The blogs, due to their more frequent and ongoing nature, encouraged deeper reflection over time, facilitating more continuous engagement with the teaching process. This type of assignment allowed preservice teachers to reflect regularly on their experiences and theories in practice, leading to more comprehensive and thoughtful reflections.

However, the study also revealed that Level 4 (Critical Reflection), which involves a profound analysis of one's teaching practices in light of societal, ethical, and cultural contexts, was not observed in any of the reflections. This finding suggests that while preservice teachers were able to engage in critical thinking and deeper reflection, there was still a gap in transformative reflection that challenges underlying assumptions and results in changes to teaching practices.

In a study by Castleberry and colleagues (2016), Kember et al.'s (2008) framework was used to assess the level of reflection in written essays produced by participants of a teaching certificate program. The study aimed to evaluate the extent to which reflective writing contributed to the professional development of the participants. Two investigators independently analyzed 132 reflective essays from 66 participants, submitted at both the midpoint and final stages of the program. All available pairs of essays were evaluated from participants completing

the teaching certificate program between 2006 and 2012. The essays focused on areas such as strengths, weaknesses, assessment, and feedback.

The coding scheme involved assigning each essay a score based on the level of reflection it exhibited. In contrast to the above studies, the investigators found that nearly half of the essays (48%) demonstrated critical reflection (Level 4), indicating a high level of engagement with the reflective process. The study concluded that the teaching certificate program fostered a high level of reflective thinking, contributing to the professional growth of the participants. It also highlighted the importance of incorporating reflective writing as a method for professional development in educational settings. The results emphasized the role of critical reflection in enhancing teaching practices, suggesting that structured reflective exercises can lead to substantial improvements in teaching efficacy.

The practical application of Kember et al.'s (2008) framework in teacher education has proven to be a valuable tool for assessing and fostering reflective thinking. Studies by Slade et al. (2019), Kerns (2014), Harland and Wondra (2011), and Castleberry et al. (2016) have demonstrated their effectiveness in evaluating the depth of reflection in various educational contexts. These studies highlight the importance of promoting deeper levels of reflection, such as critical reflection, to enhance professional growth and teaching efficacy. By incorporating structured reflective exercises, teacher education programs can better prepare candidates to address complex challenges in their teaching practices, ultimately leading to improved educational outcomes.

Situating Proposed Study

The literature reviewed in this chapter highlights several key themes in reflective practice in teacher education, including its potential to foster professional growth, the challenges of

implementing meaningful reflection, and the persistent theory-practice disconnect that complicates pre-service teachers' engagement in reflective processes. While existing research has explored various models of reflection and their application, there is a notable lack of studies examining the perceptions, and enactment of reflexive praxis by teacher candidates in Ontario's ITE programs. Understanding how teacher candidates perceive and enact reflection is essential, as their perceptions and actions influence both their engagement in reflective practices and the depth of their reflective writings.

Research from other regions, such as Kosmanou and Vassilaki (2023) and Shoffner (2008), highlights the challenges pre-service teachers face when engaging in reflective writing. While these studies provide valuable insights into common struggles with reflective practice, they do not account for the unique institutional structures and cultural contexts in Ontario teacher education programs. Reflection in Ontario is often embedded in coursework without sufficient scaffolding or opportunities for practical application, which creates additional barriers to meaningful engagement (Russell & Martin, 2013). This study addresses this gap by offering context-specific insights into how teacher candidates in an Ontario ITE program perceive and enact reflective praxis, navigating the complexities of integrating theory into practice during their practicum experiences.

One of the unique contributions of this study is its focus on the depth and quality of reflective writings produced by teacher candidates. While previous research has examined the mechanics of reflective writing, few studies have analyzed the critical awareness and transformative potential reflected in these writings. Understanding the depth of reflection can reveal whether teacher candidates are critically engaging with their experiences or merely recounting events to meet assessment criteria (Hallman, 2011; Gillies & Boyle, 2011). This study

will explore how teacher candidates' perceptions of reflection influence the quality of their reflective writings and how they apply reflective strategies in practice to bridge the theory-practice gap.

Furthermore, this study also examines how teacher candidates enact reflexive praxis in their teaching practices. Enacting reflective praxis goes beyond written reflections to include the practical actions and decisions teacher candidates make as a result of their reflections. This focus on the enactment of reflection addresses a gap in the literature, which has often prioritized written reflections over practical applications. By investigating how teacher candidates implement insights from their reflections to adapt their teaching strategies, this study will provide a more comprehensive understanding of the impact of reflective practice on professional development.

Additionally, this study contributes to understanding how cultural and contextual factors influence reflective practice. Fuertes-Camacho et al. (2021) argue that reflective capacity varies across cultural contexts, and Lingard and Gale (2010) emphasize the importance of considering historical and cultural legacies when promoting reflective practice. This study situates reflective practice within Ontario's educational context, where institutional expectations and cultural norms shape how teacher candidates engage in reflection. Understanding these influences is crucial for developing context-sensitive reflective frameworks that move beyond superficial or performative tasks and promote authentic, critical engagement.

Ultimately, this study seeks to address key gaps in the literature by providing new insights into the reflective practices of an Ontario ITE teacher candidates. It explores the depth and quality of their reflective writings and examines how they enact reflexive praxis in their teaching practices. By bridging the theory-practice disconnect and highlighting the role of

cultural and contextual factors, this research aims to inform efforts to enhance reflective practices in teacher education and foster ongoing growth, learning, and adaptive practice in diverse educational settings.

Summary and Concluding Comments

The literature reviewed in this chapter provides valuable insights into the complexities of reflective practice in teacher education. It highlights the evolving nature of reflection, from foundational concepts to contemporary approaches that emphasize critical engagement with social, cultural, and political contexts. The literature suggests that while reflective practice has the potential to foster professional growth and transformative learning, its implementation often faces significant challenges that require careful consideration.

One key insight is that effective reflective practice must go beyond surface-level engagement. Scholars such as Brookfield (1995) and Zeichner (2002) emphasize the importance of critical reflection in challenging assumptions, addressing power dynamics, and promoting socially just teaching practices. However, the literature also reveals that reflection can become performative or superficial when constrained by institutional structures, assessment requirements, or time pressures. These findings suggest that meaningful reflection requires intentional support, including scaffolding from mentors, time for deep engagement, and opportunities for collaborative dialogue.

Another important perspective emerging from the literature is the role of personal and cultural factors in shaping reflective capacity. Studies indicate that reflective practices vary across cultural and educational contexts, highlighting the need for teacher education programs to account for these differences when promoting reflection. Pre-service teachers' ability to engage in critical reflection is influenced by their prior experiences, cultural norms, and the academic

conventions of reflective writing. This underscores the importance of context-specific approaches to fostering meaningful reflection in diverse educational settings.

The literature also points to the potential of reflection as a tool for addressing the theory-practice disconnect in teacher education. Many pre-service teachers struggle to apply theoretical knowledge in practical classroom contexts, resulting in a gap between what is taught in university courses and what is experienced in practice. Addressing this gap requires integrating reflective opportunities that help pre-service teachers connect theory to practice and critically analyze their teaching strategies in real-world situations. This is closely aligned with the development of a teacher-as-researcher stance, where reflection becomes not only a bridge between theory and practice but a means of generating critical, context-responsive knowledge through reflexive inquiry.

Overall, this chapter demonstrates that reflective practice is a multifaceted and dynamic process that requires both individual effort and institutional support to be effective. It highlights the need for teacher education programs to move beyond mechanistic approaches to reflection and instead foster critical, context-sensitive, and collaborative reflective practices. By addressing the barriers to meaningful reflection, teacher educators can better prepare pre-service teachers for the complexities of teaching and promote ongoing professional growth and learning. I will now proceed to discuss the theoretical framework of my study, which is directly informed by the research literature on reflective practice in teacher education.

CHAPTER 3: CONCEPTUAL FRAMEWORK

Experience without theory is blind, but theory without experience is mere intellectual play.

– Immanuel Kant (1781)

[Y]our conceptual framework is a theory, however tentative or incomplete it may be.

– Maxwell (2013, p. 40)

In this chapter, I outline the conceptual framework guiding my research, which serves as the foundational map for the study. My philosophical and epistemological foundations of my work are deeply rooted in constructivism. This paradigm shapes my approach to understanding how teacher candidates construct their knowledge and develop their reflective practices within the Initial Teacher Education (ITE) program. However, this framework does not present theory and practice as isolated domains; instead, it fosters a *complicated conversation* that problematizes the conventional divide between theory and practice in teacher education (Pinar, 2005). By interrogating how teacher candidates navigate this interplay through reflective practices, I challenge simplistic dichotomies and emphasize the need for an integrated, dynamic understanding of teacher development. This approach provides a nuanced lens for exploring how personal experiences, theoretical insights, and practical realities intertwine in the formation of reflective practitioners.

To structure this chapter, I first delve into the philosophical underpinnings of my study, focusing on constructivism and its implications for understanding reflective practice. I then explore key concepts such as Curriculum-as-Lived (Aoki, 2004), Praxis (Reflection and Action) (Freire, 1970), and Tacit Knowing (Van Manen, 1991), which deepen the theoretical foundation and illuminate the dynamic interplay between theory and practice. Finally, I present the integrated conceptual framework that underpins my research, offering a cohesive lens to analyze

how teacher candidates develop as reflective practitioners within the Initial Teacher Education (ITE) program.

Philosophical and Theoretical Stances

As a researcher, my stances are not only important, but they are an intricate part of my research, data collection, analysis, and conclusion(s). Mine are deeply rooted in constructivism and interpretivism. These perspectives, shaped by my experiences as a teacher, mentor, and educator, guide my understanding of teaching and learning processes. Effective teaching involves continuous, context-sensitive decision-making, aligning with the constructivist belief that knowledge is actively constructed/construed through interaction with the environment, and that learning is a dynamic, evolving process. Effective teaching, similarly, is a dynamic practice that requires constant adaptation and reflection (Schon, 1983). This complex, ongoing decision-making process is central to successful pedagogy.

“The most admirable scholars within the scholarly community,” Mills (1959/2000) argued, “do not split their work from their lives. They seem to take both too seriously to allow such dissociation, and they want to use each for the enrichment of the other” (p. 195). Inspired by this quote and reflecting on my journey, I realize my teacher preparation program lacked opportunities to develop critical skills. This gap led me to view teacher education programs as responsible for cultivating a meta-approach—emphasizing reflective skills across various curriculum designs (Dewey, 1933; Kolb, 1984; Schon, 1983). This meta-approach resonates with constructivist principles, empowering prospective teachers to analyze and refine their teaching practices, enhancing classroom effectiveness.

During an era of education reform in which I worked abroad, I valued the interactions between novice teachers and experienced educators, alongside the crucial role of field

experiences in teacher development, a contention supported by research (see especially, Zeichner, 2010). These experiences, viewed through the lens of constructivism, have reinforced my belief that knowledge is actively constructed through interaction, reflection, and practice. Put differently, knowledge is inherently contextual and constructed through social interactions (Lincoln et al., 2017). Constructivism emphasizes that interactions serve as foundational building blocks for knowledge construction (Piaget, 1970). It highlights the variability and richness of these constructions (Schwandt, 1994), acknowledging that the meanings and insights generated are profoundly influenced by the participants' individual and collective experiences (Denzin & Lincoln, 2011). This perspective is essential for understanding how teacher candidates develop their reflective practices, as it acknowledges that meaning is co-created through social interactions and is heavily influenced by cultural and contextual factors (Berger & Luckmann, 1966; Myers, 2019).

For teacher candidates, this could mean that their reflective practices are shaped by their experiences, and interactions with mentors, peers, and the classroom environment. In this context, constructivism helps explain how these interactions contribute to the ongoing construction of knowledge and provides a lens for examining how teacher candidates interpret and make sense of their teaching experiences. This involves exploring how these interpretations influence their reflective practices (praxes). This constructivist perspective shapes my understanding of teacher candidates' reflections as being influenced by their unique experiences within the ITE programs. By focusing on the active construction of knowledge and the interpretation of experiences, this approach emphasizes the importance of context, culture, and social interactions in shaping an individual's understanding, allowing for a richer exploration of reflective practice in teacher education (Geertz, 1973; Merriam & Tisdell, 2015). The works of

key theorists provide essential insights into the complexities of teacher candidates' reflective practices, deeply influencing my constructivist stance.

Immanuel Kant initiated constructivism as a theory of learning, laying the philosophical foundations in the eighteenth century. In *A Critique of Pure Reason* (1781), he argued that while some knowledge is *a priori*—independent of experience—other knowledge is *a posteriori*, constructed through experience. Kant proposed that the human mind actively structures experience through innate categories, making us “the true lawgiver of nature” (Guyer and Wood, 1998, p. 21). This view foregrounds the learner as an active agent in meaning-making. This view underpins key ideas in constructivist learning theory and reflective practice in teacher education, where knowledge is continuously built and reshaped through critical reflection and lived experience.

Building on these ideas, John Dewey (1916) advanced constructivist principles in *Democracy and Education*. He argued that knowledge is a participatory process, achieved through interaction and reflection. Dewey (1933) further elaborated in *How We Think*, describing reflective thought as a process triggered by perplexity, confusion, or doubt. This iterative process of inquiry involves testing and refining ideas based on evidence, aligning with the critical role of reflection in teacher education. Dewey’s perspective underscores that teachers, like learners, must engage in reflective thinking to enhance their practices continuously.

Central to my conceptual framework, and subsequently my study, are the substantial influences of Jean Piaget and Lev Vygotsky. Piaget, known for his theory of cognitive development, and Vygotsky, known for his sociocultural theory, are considered the leaders of contemporary constructivism's two facets—cognitive constructivism and social constructivism, respectively (Proulx, 2006; Von Glasersfeld, 2013; Walshe, 2020; Webb, 2020). Piaget (1954)

argues that one's intellectual development, the learner's new knowledge "*is constructed* [emphasis added] little by little" through "observation and experimentation combined ... far from being innate or given ready-made in experience" (p. 4). He states that thought seeks satisfaction rather than truth and transforms reality into a function of personal affectivity (Piaget, 1954). In essence, learners adjust new information to their existing cognitive structures, a concept aligning closely with the reflective practices explored in my study.

Building on Piaget's work but also pushing it further, Vygotsky developed his sociocultural theory over the years as a more sophisticated and sensical way of thinking about constructivism. The central theme of Vygotsky's theoretical framework is that social interaction is essential to cognitive growth. He argues that learning occurs collectively and that knowledge construction is a social process (Vygotsky, 1929, 1962, Vygotsky, 1978, 1987). Vygotsky's concept of the Zone of Proximal Development (ZPD) encapsulates this idea, defining it as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). As Davis (2004) concludes, "one came to a coherent personal understanding of the world by mimicking, parroting, rehearsing, and otherwise acting out observed social roles" (p. 122). This perspective underscores the importance of social interaction and collaboration in learning, which is crucial for understanding how teacher candidates develop reflective practices within the collaborative environment of the ITE program, the focus of my research.

The interplay between cognitive constructivism (Piaget) and social constructivism (Vygotsky) provides a robust framework for exploring reflective practices in teacher education. Piaget's focus on individual cognitive processes and Vygotsky's emphasis on social interactions

together offer a comprehensive understanding of how knowledge is constructed and transformed. This dual lens is essential for my research, as it highlights the dynamic relationship between individual cognition and social context in the development of reflective practices. By integrating these theories, along with foundational concepts discussed in the coming sections, my study aims to explore how teacher candidates construct meaning from their experiences and use reflection as a tool for continuous learning and professional growth.

The Role of Ontology and Epistemology

Understanding the foundational beliefs that shape a research study is essential for situating it within a broader philosophical and methodological context. Guba and Lincoln (1994) identify three fundamental interconnected questions that a researcher must address to define their inquiry paradigm: *ontological* (the nature of reality), *epistemological* (how we know reality), and *methodological* (the process of conducting research and gaining knowledge). To situate my research study in and within a constructivist worldview and translate it into praxis, I have answered those questions as explained below.

Ontology of a paradigm concerns “the very nature or essence of the social phenomenon we are investigating” (Kivunja & Kuyini, 2017, p. 27). For this research, this involves exploring how teacher candidates construct and understand their professional identities, particularly through their perceptions and enactment of reflective practices. My ontological stance is particularly informed by the pedagogy of the ‘realistic approach’ to teacher education proposed by Fred Korthagen (2001), which emphasizes the integration of theory and practice. Korthagen's approach is aligned with the constructivist belief that teachers develop a deeper understanding of their roles through continuous self-directed learning and reflection.

In this model, reflective practice becomes a foundational aspect of constructivist pedagogy, where teachers learn to “construct meaning in a conscious and systematic way ... [which] can and should lead to a reframing [restructuring] of their experiences” (Korthagen et al., 2001, p. 176). Thus, Korthagen continues, student teachers are perceived as “subjects actively constructing understanding from experiences using their already existing frameworks” (p. 39). This ontological perspective is central to my research, as it positions teacher candidates as active constructors of knowledge who continuously build and refine their conceptions of teaching based on their experiences.

Epistemologically, my study is grounded in how knowledge is co-constructed through interactions and experiences. Adom et al. (2016) and Chilisa and Kawulich (2012) emphasize that epistemology addresses how we come to know reality and the nature of human knowledge. In the context of my study, epistemology shapes the methods by which I investigate the reflective practices of teacher candidates. From a constructivist viewpoint, knowledge is not passively transmitted but co-created through dialogues and reflective engagement. This process of co-construction is central to reflective practice, where teacher candidates engage in meaningful dialogue with themselves, peers, and mentors, thereby developing a richer understanding of their teaching experiences. Reflection acts as a bridge, enabling teacher candidates to create a repository of connected, experiential knowledge, allowing them to make informed and adaptive decisions in future teaching scenarios.

Methodologically, this constructivist worldview informs my choice to use a qualitative case study approach (Creswell & Poth, 2016). This methodology allows for an in-depth exploration of teacher candidates’ reflective practices, examining how these are shaped by various personal, social, and contextual factors. By adopting this approach, I aim to offer a more

nuanced understanding of teacher development within a constructivist framework. A detailed discussion of the research methodology, including justifications for chosen methods, will be presented in Chapter 4. Following this, I will delve deeper into a *complicated conversation* (Pinar, 2005) between constructivism and reflection in teacher education to explore how these perspectives shape teacher candidates' reflective practices, problematizing the theory-practice dichotomy that often emerges in discussions of teacher education.

Constructivism and Reflection in Teacher Education: A Complicated Conversation

Becker (2008) warned, “use the literature, don’t let it use you” (p. 149). He cautioned that existing literature and the assumptions embedded within it can distort a researcher's framing of their research, potentially causing them to overlook important ways of conceptualizing their study or key implications of their results. Thus, as a researcher and teacher educator, I acknowledge that while a constructivist worldview frames my epistemological approach in this study, I aim to foster a ‘complicated conversation’ (Pinar, 2005) between constructivism and reflective practice in teacher education to examine (if not challenge) prevailing assumptions, promote deeper engagement with the nuances of reflective practice, and encourage a more critical and context-sensitive understanding of how teacher candidates navigate the theory-practice dynamic in their professional learning and growth. This includes problematizing the complex interaction between theory and practice exemplified by research, suggesting that teacher candidates often struggle to bridge the divide between academic coursework and field experiences (Darling-Hammond, 2006; Hébert, 2015).

The idea of promoting reflection in teacher education has emerged as a reaction to this persistent gap between theory and practice, highlighting the need for a more robust connection between these two aspects of teacher education. However, the line between theory and practice is

often indistinct, as teachers function both as practitioners and theorists, continually refining their methods through reflection (Freire, 1970; Higgs et al., 2010; Korthagen et al., 2013). Simplifying the relationship between theory and practice as a mere gap fails to capture the complexity of this interaction. This theory-practice disconnect underscores the importance of fostering reflective practitioners who can dynamically synthesize theoretical learning with real-world teaching demands (Carter, 2023; Deng, 2004; Husebo, 2012; McGarr et al., 2017; Tilson et al., 2017). Consequently, it poses calls for a re-evaluation of reflective practices in teacher education as the bridge between these realms.

In an effort to construct a theoretical foundation for reflective approaches in teacher education programs, constructivists argue that teachers, like all learners, actively construct and interpret meaning through their interactions with the world around them. Rooted in Dewey's work (1933), reflection is central to learning from experience—a key principle of constructivist epistemology (Kinsella, 2006, 2010; Pricopie, 2020). Reflection in teacher education equips student teachers with a growing resource of connected schemata for decision-making. Thus, the more they reflect and retain experiences, the better decisions they make for themselves and their students. This reflective process includes Schön's (1983) reflection-in-action (during action) and reflection-on-action (after action), both essential for developing adaptive expertise in teaching.

Nonetheless, this reflective practice is not only about individual introspection but is also influenced by the social and cultural context in which the teacher operates (Rodgers & LaBoskey, 2016; Suphasri & Chinokul, 2021; Tsuruda & Shepherd, 2016). The social construction of knowledge, as emphasized by Vygotsky and other social constructivists, underscores the importance of cultural and social influences in shaping our interpretations. For example, a teacher's understanding of 'effective teaching' is influenced not only by personal

reflection but also by the expectations and norms of their educational community. This aligns with the theory-practice relationship, where knowledge gained in a theoretical context must be adapted and integrated into real-world teaching practice. However, this integration is often fraught with challenges, as the theory-practice dichotomy/disconnect suggests that what is taught in teacher education programs may not seamlessly translate to practical application (Darling-Hammond, 2010; Zeichner, 2010). Korthagen expands on this by conceptualizing teacher development as “an ongoing process of experiencing practical teaching and other educational learning situations, reflecting on them under the guidance of a more experienced colleague, and developing one’s own insights into teaching through the interaction between personal reflection and theoretical notions” (Korthagen et al., 2001, p. 12). For instance, when teacher candidates engage in classroom teaching, their reflections are informed not only by their own experiences but also by feedback from mentors, observations of peers, and engagement with educational theories. This interactive process is essential for developing a deeper understanding of their teaching practices and for making informed decisions in the classroom. This approach aligns with research by Browning and Korthagen (2023), who argue for a seamless interaction between theoretical learning and practical experiences to create adaptive and reflective practitioners (see also Korthagen & Nuijten, 2022).

In this context, some scholars argue for an expanded conception of reflective practice that positions teacher candidates not only as learners, but as researchers of their own practice (among others Cochran-Smith & Lytle, 2009; Jacobs et al., 2015; Kitchen & Russell, 2012; Loughran, 2004; Loughran, 2007; Zeichner, 2010). This teacher-as-researcher stance aligns closely with constructivist principles by emphasizing that knowledge is co-constructed through inquiry, action, and critical reflection. It also embodies what Freire (1970) describes as *reflexive praxis*—

a continuous engagement with the ethical, political, and relational dimensions of teaching. When teacher candidates investigate their own teaching experiences through reflective inquiry, they are not simply applying theory to practice, but generating new, situated knowledge that bridges the two. This generative aspect of reflection deepens their understanding of professional identity, supports adaptive expertise, and repositions them as active agents in their own learning and development.

My research, therefore, situates itself within this complicated conversation, seeking to explore how teacher candidates actively construct and reinterpret their understanding through reflective practice, thereby contributing to the transformation of the theory-practice relationship in teacher education. Here, I would like to emphasize that, although Dewey and Schon's constructivist worldviews inform my epistemology underpinning this research, I am aware of the critiques of the uncritical use of their work. For example, Hébert (2015) cautions against the uncritical use of Dewey's and Schön's models in reflective practice, advocating instead for a nuanced approach that scrutinizes the connection between knowledge and experience. This highlights the importance of ensuring that reflective practice models are examined for their alignment with the complexities of teacher education. According to Hébert (2015), both Dewey and Schön, while foundational in reflective practice, can sometimes bifurcate knowledge and experience, prioritizing the former at the expense of the latter. Such an approach risks diminishing the value of lived, contextual experiences that are critical for teacher development. Indeed, this has been the case in teacher education for a long time. For instance, Loughran(2006) critiques teacher education programs for overemphasizing formal knowledge (episteme) at the expense of enhancing practical knowledge or practical wisdom as Aristotle called it (phronesis). He argues that this imbalance can limit the effectiveness of teacher education, as it fails to

prepare teacher candidates for the complexities of real-life teaching. For example, a teacher candidate who excels in theoretical coursework may struggle in the classroom if they have not developed the ‘practical wisdom’ to interpret and respond to the nuances of individual classroom situations.

Korthagen (2001), drawing from Plato and Aristotle, further elaborates on this. He describes *episteme* as abstract, propositional knowledge, such as pedagogical theories and frameworks, which provide an essential foundation for teaching. However, he emphasizes that this type of knowledge alone is insufficient for the fluid, context-dependent realities of classroom practice. Instead, *phronesis* (or practical wisdom) becomes crucial. *Phronesis* involves adapting theoretical knowledge to meet the specific needs of students, such as modifying a lesson on the spot or navigating classroom challenges based on accumulated experience (Korthagen, 2010).

In my research, this distinction underscores a key tenet of constructivist theory: learning is an active, experiential process in which knowledge is constructed through meaningful engagement with one's environment. Developing *phronesis* is fundamental to understanding teachers' professional growth. This development begins with tangible experiences and the subjective interpretations of real-life situations—a core concept in my study. The dynamic and evolving nature of learning emphasizes the significance of both personal experiences and social influences, which are crucial for cultivating the adaptive expertise required for effective teaching.

For instance, when teacher candidates engage in reflective practice, they do more than simply recall abstract principles. They actively interpret their experiences, modify their strategies, and integrate new insights into their existing cognitive frameworks. This reflective process transcends mere cognitive activity, functioning as a dynamic, evolving practice that is

profoundly personal and shaped by social contexts. Such multi-faceted reflection enables teacher candidates to continually adapt and refine their teaching practices with newfound understanding.

Problematizing the Theory-Practice Dichotomy in Teacher Education

Understanding the complex environments in which teacher candidates operate is crucial for problematizing the traditional theory-practice dichotomy. Rather than treating theoretical concepts (episteme) as static knowledge to be passively absorbed, teacher candidates actively reinterpret these ideas through hands-on, practical experiences (Darling-Hammond, 2010; Russell, 2014; Zeichner, 2010). Paulo Freire's (1970) concept of *praxis*—defined as “reflection and action upon the world in order to transform it” (p. 51)—offers a compelling framework for this integration, emphasizing the inseparability of reflection and action (*praxis*). This perspective reframes learning as a dynamic, transformative process that bridges theoretical understanding and practical application. By engaging in *praxis*, teacher candidates are empowered to co-construct knowledge, thereby transforming both their teaching practices and their conceptual understanding in meaningful ways.

Freire's (1970) concept of *praxis* challenges the conventional theory-practice dichotomy by emphasizing that genuine learning occurs through the continuous enactment and adaptation of theory. In this view, reflection and action are inseparable; they exist in a reciprocal relationship that requires teacher candidates to constantly engage in a cycle of theorizing and doing. Central to Freire's framework is the idea of dialogic learning, which emphasizes the importance of communication, collaboration, and critical dialogue in the learning process. Through dialogue, teacher candidates can reflect on their experiences, question their assumptions, and co-construct new understandings with peers, mentors, and students.

Freire also draws on Alvero Pinto's concept of "*limit-situations*", which emphasizes the dialectical tension between human agency and structural constraints (Pinto, as cited in Freire, 1970, p. 99, fn. 15). Pinto defines *limit-situations* as the objective and subjective barriers that human beings encounter—conditions that appear to block action but simultaneously hold the possibility for transformation when critically apprehended. For teacher candidates, limit-situations may take the form of pedagogical dilemmas, institutional constraints, or moments of uncertainty during practicum. When these moments are critically examined, they can become generative spaces for reflection and action. Adopting a teacher-as-researcher stance enables candidates to recognize and interrogate these limit-situations, drawing on relevant theoretical and empirical studies to make sense of their experiences. In this way, reflection becomes not merely a retrospective act but a transformative one, grounded in a reflexive praxis oriented toward social and educational change.

Building on this, Freire's notion of *dialogic learning* ensures that theoretical knowledge is not simply imposed but is instead actively reshaped and made meaningful through reflective, participatory engagement with real-world teaching contexts. According to Darder (2017), dialogic learning creates spaces where teacher candidates engage in "co-intentional education," where both teachers and students learn from one another in a mutual process of inquiry and reflection. Furthermore, Giroux (2020) highlights that this dialogic approach transforms teacher candidates into critical thinkers who actively participate in the construction of knowledge rather than passively receiving it. By embracing dialogue, teacher candidates become empowered to challenge existing norms, rethink their practices, and create more just and effective learning environments (Mayo, 2015).

While Freire's concept of *praxis* emphasizes the inseparability of reflection and action, addressing the theory-practice divide also requires an understanding of how curriculum and experiential knowledge shape reflective practices. This is where the work of Ted Aoki (2004) and Max van Manen (Van Manen, 1977, 1991, 1997/2016) becomes particularly relevant.

Ted Aoki (2004) extends this discussion by problematizing the rigid separation between curriculum-as-planned and curriculum-as-lived. Aoki challenges the notion that these domains exist as distinct, independent entities, instead arguing that meaningful learning occupies an in-between space where theory and practice are in constant dialogue, continuously informing and reshaping one another. Aoki (2004) also speaks to this dynamic interplay, describing teaching as a *living pedagogy* that inhabits the spaces between theoretical curriculum and the lived realities of classroom practice, highlighting the necessity for teacher candidates to fluidly navigate and negotiate the in-between spaces of theoretical and practical knowledge. His notion of *curriculum-as-planned* versus *curriculum-as-lived* captures the reality of teaching as an adaptive and emergent practice. Curriculum-as-planned refers to the structured, often rigid, theoretical frameworks and objectives outlined by educational policies and academic institutions. In contrast, curriculum-as-lived represents the fluid, dynamic experiences of teachers and students as they interact in real classroom settings, negotiating and co-constructing knowledge in response to the complexities and nuances of each unique learning environment.

Recent scholarship has emphasized the relevance of Aoki's ideas in contemporary educational contexts. For instance, Hasebe-Ludt et al. (2009) argue that Aoki's work provides critical insights into understanding the multifaceted and evolving nature of pedagogy, emphasizing the importance of embracing curriculum as a lived, relational process. Similarly, Pinar (2014) underscores how Aoki's concept of curriculum-in-the-making highlights the active

role teachers and students play in shaping educational experiences, where theoretical ideals are continuously negotiated to align with the realities of practice. This perspective emphasizes that teaching is not a linear application of pre-determined theories but rather an evolving practice shaped by ongoing reflection and responsiveness.

This continuous negotiation requires educators to be critically aware of the tensions between their theoretical understanding and the lived realities of their classrooms. By embracing this complexity, teacher candidates can develop a more nuanced and context-sensitive approach to teaching, one that acknowledges the unpredictable nature of educational environments and values the co-creation of knowledge with their students. Aoki's work thus encourages a deeper, more integrated approach to teacher education, where the boundaries between theory and practice are blurred, fostering reflective practitioners who can fluidly navigate and adapt to the demands of their profession (Hasebe-Ludt et al., 2009; Pinar, 2014).

Freire's (1970) idea of dialogical learning and Aoki's (2004) concept of the lived curriculum emphasize that the boundaries between theory and practice are fluid and constantly negotiated. These perspectives advocate for reflective practice that allows teacher candidates to bridge this divide. Reflective practice, then, becomes a dynamic process through which teacher candidates engage with and adapt theoretical knowledge based on their lived experiences and interactions within their educational communities (Freire, 1970; Aoki, 2004).

Complementing Aoki's perspective, Max van Manen (1991) introduces the concept of *tacit knowing*, which further complicates the theory-practice relationship. Van Manen emphasizes that much of a teacher's 'practical wisdom' is embedded in action and cannot always be explicitly articulated. This form of knowledge is crucial for responsive and context-sensitive teaching, highlighting that reflective practice must also account for these unspoken, experiential

insights. Van Manen's perspective aligns with Aoki's idea of curriculum-as-lived, as both emphasize the fluid, often intuitive nature of teaching, where teachers must rely on experiential knowledge that cannot be fully captured by theoretical models. By acknowledging the role of tacit knowing, teacher candidates can better navigate the complexities of real classroom situations, integrating both explicit theories and the unspoken, nuanced wisdom gained through experience. Together, Aoki and van Manen enrich my conceptual framework by emphasizing the interplay between articulated theories and unarticulated experiences. Their work underscores the complexity of reflective practice, suggesting that effective teacher education must embrace both the planned and the lived, the explicit and the tacit, in preparing adaptive, reflective practitioners.

Integrated Conceptual Framework for Reflective Practices in Teacher Education

In this section, I present the integrated conceptual framework that underpins my analysis of teacher candidates' reflective practices. Building on the perspectives of Freire, Aoki, and Van Manen discussed in the previous section, this integrated framework leverages their ideas to illuminate the complex interplay between theory and practice in teacher education. Freire's concept of *praxis* informs the framework's emphasis on the inseparability of reflection and action, while Aoki's notion of *curriculum-as-lived* highlights the adaptive nature of teaching practices. Van Manen's concept of *tacit knowing* adds depth by acknowledging the intuitive, often unspoken elements of teacher knowledge. Woven together, these theories enrich the constructivist paradigm that guides my study, ensuring a comprehensive exploration of reflective practices. The diagram in Figure 1 below provides a visual representation of these interconnected theories, illustrating how they collectively inform my approach to exploring reflective practices.

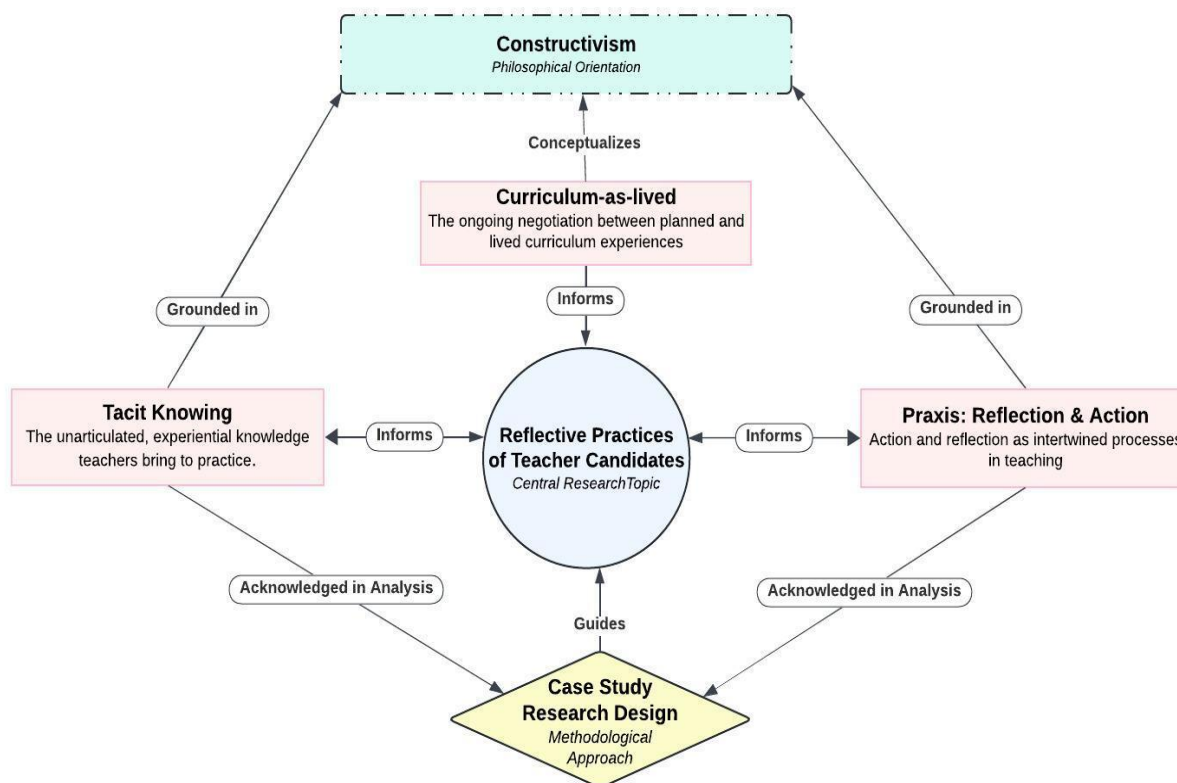
Figure 1*Integrated Conceptual Framework for Exploring Teacher Candidates' Reflective Practices*

Figure 1 above illustrates the integrated conceptual framework guiding this study, highlighting the interplay between theoretical components and their connection to reflective practices. At the foundation is the Constructivist Paradigm, which serves as the philosophical orientation. *Constructivism* emphasizes how teacher candidates actively construct knowledge through personal and social experiences, understanding the subjective meanings that teacher candidates attach to these experiences.

The *Case Study Research Design* (diamond at the bottom) acts as the methodological approach, integrating these philosophical orientations to enable a detailed, context-sensitive analysis of teacher candidates' reflective practices. This design ensures that the complexity and

interplay of social and individual factors are captured, providing a comprehensive examination of how reflective practices are co-constructed and evolve within the ITE program.

The *Curriculum-as-Lived* (circle at the top) and *Praxis* (Reflection and Action) (circle on the right) deepen this framework. *Curriculum-as-Lived* emphasizes that teacher candidates' experiences in the classroom are not mere applications of theoretical knowledge but contexts where such knowledge is actively reconstructed. It aligns with constructivism by underscoring the dynamic construction of knowledge and resonates with interpretivism by highlighting the subjective and context-dependent nature of learning. The arrow labeled 'conceptualizes' indicates that Curriculum-as-Lived provides a tangible context for understanding and applying these paradigms, bridging the gap between theory and practice and making these abstract principles more relevant to real-life teaching scenarios.

Praxis represents the cyclical relationship between reflection and action, showing how teacher candidates continuously apply, test, and refine theoretical understandings through practical experiences. This cycle emphasizes the active integration of theory and practice, where reflection informs action, and action deepens understanding, fostering continuous professional growth.

Finally, *Tacit Knowing* (circle on the left) highlights the unarticulated, experiential knowledge that teacher candidates bring to their reflective practices. This concept is grounded in constructivism, emphasizing the importance of experiential knowledge in shaping reflective practices. Together, these components offer a nuanced lens to explore teacher candidates' reflective practices and professional growth.

Summary and Concluding Remarks

This chapter established the conceptual framework for the study, grounded in constructivism. This paradigm provides a lens to explore teacher candidates' reflective practices, focusing on how personal and social experiences shape knowledge construction and meaning making. This integrated framework will guide the subsequent analysis and discussion in the study, ensuring that the complex interplay of individual and social factors in reflective practice is thoroughly explored and understood. In the next chapter, I describe the research design, data collection methods, and analytical strategies that align with the constructivist underpinnings of this study.

Chapter 4: Methodology and Methods

If you don't know where you are going, you'll end up someplace else.

– Yogi Berra (1950s-60s)

Methodology refers to the research design, data gathering, participants, and procedures utilized to obtain an answer to a research question in a study (Carter & Little, 2007; Creswell & Poth, 2016). This chapter outlines the methodology employed in this study to explore the reflective practices of teacher candidates. It details the research design, data collection methods, data analysis techniques, ethical considerations, and measures to ensure the study's rigor and trustworthiness. Building on the theoretical and philosophical foundations established in the conceptual framework chapter, this methodology chapter explains how these foundations are practically applied in the research process.

The conceptual framework chapter (Chapter 3) provided an in-depth discussion of the study's constructivist epistemology. It also introduced key concepts, including *Curriculum-as-Lived*, *Praxis (Reflection and Action)*, and *Tacit Knowing*, which shape the study's perspective on reflective practice. In this chapter, these concepts are incorporated into the research design to explore how teacher candidates perceive and enact reflective practice within their unique contexts.

Overview of the Study

This study investigates the reflective practices of teacher candidates within an Ontario ITE program. Employing a qualitative research approach, the study aims to understand how teacher candidates perceive and engage in reflective practice, and the role of the program in fostering these practices.

The central research question focuses on how the term ‘reflection’ is understood, used, experienced, and practiced by teacher candidates studying in the ITE programs, and to what extent the programs are successful (or not) in developing a reflective capacity in teacher candidates. To address these questions, the study utilizes a case study design, allowing for an in-depth exploration of individual and collective experiences of teacher candidates.

Data collection methods included semi-structured interviews and reflective logs to capture a comprehensive view of teacher candidates' reflective processes. The data were analyzed using thematic analysis, guided by Braun and Clarke's (2022) framework to identify patterns and themes. Additionally, content analysis, informed by Kember et al.'s (2008) four-category scheme, was employed to classify the depth and quality of reflective practices demonstrated by teacher candidates.

Overall, this study aims to contribute to the understanding of reflective practice in teacher education, highlighting the critical role of supportive and structured reflective activities guided by professors. The findings are expected to inform improvements in ITE programs, ultimately enhancing the preparation and professional growth of future educators.

Research Design

A research design, as Yin (2009) states, “is the logic that links the data to be collected (and the conclusions to be drawn) to the initial questions of study” (p. 19). As discussed in Chapter Two, the constructivist research paradigm defines my worldview as a researcher. A paradigm is a conceptual lens through which the researcher considers the methodological aspects of their research study in order to identify the research methods to be employed and the data to be analyzed (Matta, 2022). Constructivism as an epistemology posits that knowledge is actively constructed by individuals based on their experiences and interactions. It suggests that our

understanding of reality is not simply discovered, but is shaped by our own perceptions and social constructs (Creswell & Poth, 2016; Schwandt, 1994). This perspective acknowledges that while individuals actively construct their own knowledge, the role of the researcher is to explore and make sense of the complex interplay of meanings that emerge from these constructions (Lincoln & Guba, 1985; Patton, 2015). This approach ensures that the research methods employed are well-suited to capturing the nuanced and dynamic nature of human understanding, aligning the epistemological underpinnings of constructivism with practical, methodological applications. This lens determines my choice of research methods, ensuring they align with the underlying epistemological and theoretical perspectives. Hence, this study employs a qualitative case study research design, grounded in a constructivist paradigm, as discussed in Chapter 3.

Schwandt (1994) highlights that constructivism acknowledges knowledge and reality as constructed by human beings based on their lived experiences and interactions with the world. This perspective aligns with the constructivist emphasis on exploring how individuals actively construct their understanding within specific social and cultural contexts. Holloway's (1997) interpretation of Max Weber's (1904/1949) concept of 'verstehen'—meaning "interpretive understanding"—provides valuable insights into the complexity of human actions and their context-dependence. Holloway underscores that individuals' behaviors are shaped not merely by external stimuli but by their habits, emotions, beliefs, and rationales, all situated within particular times and places.

This perspective resonates with constructivist paradigms by emphasizing that individuals actively create and associate subjective and intersubjective meanings through their interactions with the world around them. As Orlikowski and Baroudi (1991) observed, researchers attempt to "understand phenomena through accessing the meanings participants assign to them" (p. 5).

Constructivist research embraces the complexity and uniqueness of human experience, focusing on the nuanced ways in which individuals make sense of their actions and environments.

This study adopts a constructivist lens to explore how teacher candidates construct and refine their reflective practices within the multifaceted context of Initial Teacher Education. By acknowledging the subjective meanings teacher candidates attach to their experiences, the research seeks to uncover the dynamic interplay of personal insights, social interactions, and contextual factors in shaping their reflective growth.

For methodology, this perspective implies a need for qualitative approaches that allow for in-depth exploration of individual experiences and interpretations. In research, the investigator is seen as an interpreter, making sense of the world through a process of understanding the meanings that individuals assign to their experiences. Denzin and Lincoln (2011) describe qualitative research as an immersive activity that positions the researcher within the real world. It involves a range of interpretive and material practices that ‘make the world visible’. These practices convert the world into various forms of representation, such as field notes, interviews, conversations, photographs, recordings, and personal memos. In this context, “qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them” (Denzin and Lincoln, 2011, p. 3).

The overall aim of this research is to explore how teacher candidates in Ontario ITE programs perceive and practice reflection and to examine the reflective capacity they develop. By understanding the learning outcomes that emerge from these programs regarding reflective practice, this study seeks to provide insights into the effectiveness of teacher education in fostering reflective practitioners.

A case study approach is particularly appropriate for this research. Creswell and Poth (2016) assert that a case study allows educational researchers to “explore a real-life, contemporary case or multiple cases over time, through detailed, in-depth data collection involving multiple sources of information” (p. 97). This method aligns with the qualitative research paradigm described by Denzin & Lincoln (2011), emphasizing the exploration of phenomena in their natural settings and interpreting them through the meanings participants ascribe to their experiences.

Moreover, the case study approach is suited to uncovering how specific events occur and identifying factors that may influence particular outcomes (Hancock et al., 2021). In the context of this research, this approach enables an in-depth examination of the reflective practices of teacher candidates within their educational environments. By utilizing multiple sources of data, including interviews, and document analysis, I aim to provide a comprehensive understanding of how reflection is practiced and perceived, and how the reflective capacities of teacher candidates are developed through their ITE programs. These methods are well-suited for capturing the rich, detailed experiences of participants in their natural settings (Creswell & Poth, 2016). They allow for a deep exploration of the social processes and contexts that shape teacher candidates' reflective practices.

Overall, case study research methods are the most suitable choice for my study. As highlighted by Hancock and Algozzine (2021), these methods allow for the “capture of multiple realities that are not easily quantifiable” (p. 72), which aligns perfectly with the objectives of this research. The holistic approach to information collection in natural settings and the use of purposive sampling techniques enable a comprehensive exploration of the complex and context-bound reflective practices of teacher candidates. This approach ensures that the nuanced,

subjective experiences of the participants are thoroughly examined, providing deep insights into the development and practice of reflection in ITE programs.

Research Questions

Following the explanation of the research design, it is essential to outline the specific research questions guiding this study.

Given the significance of developing reflective practices in pre-service (and in-service) teachers, and the aim of the enhanced, initial teacher education programs in Ontario to develop teachers who are reflective practitioners, how is the term ‘reflection’ understood, used, experienced, and practiced by teacher candidates studying the ITE programs, and to what extent are the programs successful (or not) in developing a reflective capacity in teacher candidates? Here, I was aware as a researcher that I could explore the answers to these questions from various angles: program evaluation, curriculum development and implementation, pedagogy, etc. Nonetheless, it was my interest to examine teacher candidates’ understanding and practice of reflection rather than how the term is operationalized in the programs.

The final research questions, refined to better capture the complexity of reflective practices among teacher candidates, are as follows:

1. What does the term ‘reflection’ mean for teacher candidates studying in the Initial Teacher Education (ITE) program?
2. How do teacher candidates in an Ontario Initial Teacher Education program enact reflexive praxis within their ITE program?
3. What evidence of reflection is demonstrated in teacher candidates’ written reflections on their practicum experiences?

Research questions are fundamental to any scholarly investigation, guiding the process from problem identification to data collection and analysis. According to Creswell (2014), well-constructed research questions provide clear focus, help explore specific phenomena, and contribute to the advancement of knowledge. Leedy et al. (2019) emphasize that these questions drive the selection of appropriate methods and ensure the study remains relevant and purposeful. Maxwell (2013) highlights that “research questions evolve through multiple drafts, reflecting the researcher’s deepening understanding of the study’s purpose and scope” (p. 45). In my case, I meticulously refined my questions to address the critical issues I aimed to investigate.

The design of this qualitative study evolved throughout the inquiry. Creswell and Poth (2016) note that qualitative research starts with broad assumptions, worldview stances, and a theoretical lens, shaping the topic of inquiry. This emergent design allowed for the refinement of the research questions as deeper insights were gained, ensuring alignment with the complex and dynamic nature of the participants’ reflective practices.

The research questions I formulated reflect the issues emerging from my professional experience, highlighting the significance of ‘reflection’ for myself, my peers, and the student teachers I work with. While the implications for teacher educators remain unexamined, they represent a focal point for future investigations. Given that reflective practice is a cornerstone of the teacher education curriculum, I aimed to understand the participants’ interpretation of this concept and the depth of their comprehension. Additionally, it is crucial to examine the extent to which their ideas align with or diverge from the existing literature on this topic.

With this foundation in mind, the first research question aims to explore what the term ‘reflection’ means for teacher candidates studying in an Ontario ITE program. This question seeks to uncover the participants’ personal definitions and understandings of reflection,

examining how they conceptualize and articulate this practice within the context of their teacher education. By delving into their interpretations, the study aims to reveal the nuances of how reflection is perceived and practiced by future educators.

Research question two investigates how teacher candidates enact reflective practices within an Ontario ITE program. This encompasses both structured methods, like reflective journals and peer discussions, and spontaneous reflections during teaching. The question aims to understand how these practices influence lesson planning, classroom management, and student engagement. It also examines the support systems, such as mentoring and feedback from professors, that facilitate or hinder reflective practices. Additionally, it explores external factors like program requirements and the inadequacy of current approaches, alongside the challenges teacher candidates face in implementing reflective practices. This investigation includes the practical application of reflection and how teacher candidates adapt their teaching methods based on reflective insights. This comprehensive exploration aims to enhance our understanding of the practical implementation of reflective practices in the teaching field.

Last, the third research question explored the manifestations and quality of reflective practice as evidenced in the written reflections of teacher candidates regarding their practicum experiences. Specifically, it aimed to examine the extent to which teacher candidates' written reflections demonstrate thoughtful and meaningful engagement with their practicum experiences. This included analyzing their writings for signs of critical thinking, self-assessment, and the application of theoretical knowledge to practical situations. Additionally, the question sought to assess the depth and substance of these reflections, determining whether Teacher candidates were merely describing their experiences or delving deeper into analyzing and learning from them.

These questions provided a focused framework for exploring the specific contexts and outcomes of reflective practices, aligning closely with the study's objectives and theoretical framework. By addressing these questions, this study seeks to provide a comprehensive understanding of the role of reflective practice in teacher education and its implications for the professional development of future educators.

Researcher Positionality

My perspective on reflective practices is deeply shaped by my educational and cultural background. With extensive experience as a former teacher and teacher mentor, I have observed firsthand the challenges and benefits that reflective practices present to educators. These experiences, coupled with my current role as a teacher educator, have significantly influenced the research questions and approach taken in this study.

However, I was mindful of not allowing my role as a teacher educator to confine or bias my judgments. My 'insider' status, which afforded me a natural membership in the educational setting, provided a foundational understanding and facilitated deeper access to the environment. While this positionality offered advantages, it also posed challenges in interpreting the diverse experiences of the participants. To mitigate potential biases, I maintained an open and non-directive stance during interviews, ensuring that participants felt comfortable sharing their experiences. I emphasized the voluntary nature of their participation, guaranteed confidentiality by anonymizing data, and was transparent about the research's purpose and my role within it. Participants seemed to feel 'safe,' perhaps because I was not involved in teaching them or evaluating their performance.

I have reflected on how my position may have influenced this research and can only assure readers that I reported the participants' responses as truthfully as possible.

My constructivist stance guided me toward qualitative methods that allowed for an in-depth exploration of the participants' reflective practices.

However, I remained aware of the potential for my interpretations to be influenced by my own experiences. To address this, I triangulated data, engaged in ongoing reflexivity to examine my positionality, and ensured descriptive and interpretive validity through detailed transcription and close attention to participants' perspectives. Additionally, by gathering information from various sources, such as the official program handbook and Ministry documents, I ensured that issues were presented from multiple perspectives, not just my interpretations. This approach enabled me to analyze the data with greater objectivity. Further discussions on data trustworthiness and ethical considerations are included in this chapter.

My Method

Recruitment and Participants

In this study, I deployed a purposeful sampling technique to recruit participants from ITE students in one program in Ontario. 'Purposeful sampling' is the "information-rich cases from which one can learn a great deal about issues of central importance to the purpose of research"(Patton, 2002, p. 46). This technique enables the researcher to collect qualitative responses and allows for in-depth investigation of the phenomena under study, which results in improved understanding and more accurate research findings. The results are pertinent to the research context because the researcher gathers data from the best-fit participants. Additionally, I deployed a 'maximum variation' sampling strategy (Miles & Huberman, 1994) to "represent diverse cases and to fully describe multiple perspectives about the cases" (Creswell, 2007, p. 129). By deploying the "maximum variation" sampling strategy, these ITE students were

purposefully selected to reflect differences (as far as possible) in grade level, teaching subject, gender, and ethnicity.

The general criteria, however, were: i) all participants must have either completed their first year of the ITE program and be transitioning to the second year, or ii) be in their final year, or iii) have recently graduated during the data collection period. To ensure an adequate number of participants, I broadened the selection criteria to include individuals from the entire specified population. This approach ensured a more comprehensive representation of the target population (Creswell & Poth, 2018). This approach is often selected because when a researcher maximizes differences at the beginning of the study, it increases the likelihood that the findings will reflect differences or different perspectives ideal in qualitative research (Creswell, 2007).

Participants were recruited through an email invitation ([Appendix A](#)). Upon receiving ethical approval for this study from the university's ethics board, I sent an email invitation to all current students in the ITE program, as well as recent graduates, inviting them to participate in the study. I was aware that the recruitment process involves identifying, targeting, and enlisting potential participants. This includes providing them with information about the study and determining their interest in participating (Creswell, 2007). According to Jones et al. (2013), it is essential to inform study participants of the researcher's motivation for their selection, ensure their anonymity if desired, and explain the study's purpose. This transparency helps build rapport and trust between the researcher and participants. Hence, the recruitment notes of my study included all the details. I also explained that the research process would consist of a one-on-one interview, and reflective journal analysis. I explained in my recruitment email that for the purposeful sampling technique used to recruit my study participants, they would be asked to answer a short demographic survey ([Appendix D](#)) to provide personal information. Here, I need

to highlight that the demographic categories listed in the demographic survey, including “African American” and “Native American,” were inadvertently used in my study. I acknowledge that these terms are not appropriate within a Canadian context. In Canada, more accurate and respectful terminology includes “Black/African Canadian” and “First Nations, Inuit, and Métis” (collectively referred to as Indigenous Peoples). While these terms were not revised prior to data collection, responses were interpreted with consideration for participants’ likely intended identifications. Future iterations of this instrument will ensure alignment with Canadian terminology and practices regarding race and identity.

In my recruitment email, I also mentioned that due to the limited space in the research study, not all volunteers would be selected to participate. I initially believed that selecting 8-10 participants would allow me to explore their experiences and perspectives in depth, resulting in richer data. This approach allows for intensive data collection and analysis, making optimal use of resources. Additionally, this sample size facilitates the potential achievement of data saturation within a manageable timeframe, enabling a comprehensive understanding of the contextual factors, motivations, and processes involved. This approach aligns with Creswell and Poth's (2018) suggestion of 4-5 cases for case study research and Guest et al.'s (2006) findings that data saturation often occurs within 6-12 interviews.

Ultimately, eight teacher candidates volunteered to participate in my study, enabling a detailed examination of individual cases and yielding rich insights. Except for one participant (Alex), who was a recent graduate, all teacher candidates were in their second year of the ITE program and were completing their second-year practicums. Each teacher candidate was given a pseudonym to maintain the confidentiality of their identity as shown in Table 1.

Table 1*Demographic Information of Participants*

#	Participant	Current Status	Division	Sex
1	Alex	Graduate	Primary/Junior (K-6)	Female
2	Jordan	2 nd Year	Primary/Junior (K-6)	Female
3	Taylor	2 nd Year	Primary/Junior (K-6)	Female
4	Morgan	2 nd Year	Primary/Junior (K-6)	Female
5	Dylan	2 nd Year	Primary/Junior (K-6)	Male
6	Riley	2 nd Year	Junior/Intermediate (4-10)	Female
7	Cameron	2 nd Year	Primary/Junior (K-6)	Female
8	Adrian	2 nd Year	Primary/Junior (K-6)	Male

Data Collection

The main data collection methods in the present study included an in-depth semi-structured interview with eight teacher candidates and documents, i.e., written reflection journals of ITE students, and Official University documents describing the ITE program.

The process of qualitative data collection is an “ongoing, iterative, and participatory process” (Nastasi & Schensul, 2005, p. 182) that should provide an in-depth understanding of how teachers understand and engage in self-reflection. Research grounded in constructivism typically employs interviews, content analysis, and other qualitative methods to capture the richness and complexity of social interactions and meanings (Creswell & Poth, 2018; Liamputtong, 2019). According to Blumer (1969), reality is found in the empirical world, not in

the techniques used to explore that world. The discovery of reality comes from scrutinizing the empirical world, not from dissecting or expanding the methods used to investigate it. Methods are simply tools designed to identify and analyze the stubborn nature of the empirical world, and their worth lies solely in their effectiveness in accomplishing this task. Besides, these data-gathering strategies triangulate the findings and ensure their consistency, providing opportunities for “deeper insight into the relationship between the inquiry approach and the phenomenon” (Patton, 2002, p. 556).

Interview. This study involved the collection of qualitative data from in-depth, semi-structured interviews with participants. Interview is a valuable research instrument used to learn about people's thoughts and experiences, as well as “individual attitudes and values that cannot necessarily be observed or accommodated” (Byrne, 2004, p. 182). The primary goal was to understand teacher candidates’ perceptions and practices of reflection.

“Interviews allow rich data collection and are useful in capturing the nuances of personal interpretation and biography” (Liamputtong, 2019, p. 173). Data collection involved one-on-one interviews with each participant conducted between September 24, 2023 and November 1, 2023. “Individual interviews yield significant amounts of information from an individual’s perspective” (Hancock et al., 2021, p. 52).

The interviews (see sample interview protocol in [Appendix C](#)) were semi-structured and focused because they were guided by my research questions (RQ 1 and 2). “Semi-structured interviews are particularly well-suited for case study research” (Hancock & Algozzine, 2006, p. 40). According to Marshall and Rossman (2016), semi-structured interviews involve a carefully planned format in which specific questions are asked in a deliberate sequence. This structure, they assert, supports both consistency and flexibility, enabling researchers to gather rich, in-

depth data while maintaining a focused approach that facilitates systematic and efficient analysis. The interview questions were developed and arranged in accordance with the themes and areas I wanted to examine in order to allow me “to gain insights into the study’s fundamental research questions.” (Hancock & Algozzine, 2006, p. 39).

Each participant received the same initial questions to enable meaningful comparisons across the study and to facilitate the creation of comprehensive summaries (Creswell & Poth, 2018). Although each interview was guided by a set of pre-planned questions posed to each participant, these questions served as a basis for further inquiry, allowing me to ask follow-up questions based on participants' responses. This approach enabled me to be responsive to participants' answers and to create an atmosphere conducive to open communication (Seidman, 2019). The interviews provided a deeper look at the individual learning experience within the teacher education program and provided insights into their self-reflection journey in terms of knowledge construction and the level of self-efficacy they feel in writing their reflections. More specifically, the interviews involved questions aiming to explore how teacher candidates perceive the term ‘reflection,’ how they view reflection as a process, and what may reinforce or hinder their reflection. The interview questions also helped me explore the aspects of a reflective practitioner/reflective capacity the student teachers have developed (Priddis & Rogers, 2018; Stevens & Cooper, 2023).

I was aware that the interviews should be conducted in “a setting chosen to maximize the responsiveness of those being interviewed” (Hancock & Algozzine, 2006, p. 41). Hence, interviews were conducted using the Zoom online platform at times that were most convenient for each participant. Participants were asked to choose a private and convenient location for their interviews. The duration of the interviews varied, typically lasting around 45 minutes. With the

participants' consent, the interviews were audio-video recorded and transcribed. After the interview was completed, each participant submitted a collection of their professional reflections/journals for analysis.

Documents. In addition to utilizing interviews, case study researchers frequently review existing documents to collect data pertinent to their research questions. Documents can vary widely in form and usefulness, and a comprehensive researcher seeks information from as many relevant documents as possible (Yin, 2009). Hence, as part of my research, I reviewed various 'private' and 'public' documents to gather comprehensible data. "Private records include any material produced by an individual that provides insights into the person's beliefs, attitudes, and behaviors" (Hancock & Algozzine, 2006, p. 51). In the case of my research, participants' reflective journals and other written forms of reflections teacher candidates produced during their practicum and study in the ITE program were significant.

The written reflections of teacher candidates were a crucial data source in this study, offering profound insights into their teaching experiences and reflective processes. Teacher candidates were required to write weekly reflection journals, freely addressing various aspects such as class activities, lesson plans, student engagement, classroom management, and other relevant issues in their teaching practice. Data collection occurred during the first semester of the second year of the program, with participants sharing their journals by the end of the term, along with some reflections from their first year.

These documents offered a rich repository of information that enabled a detailed examination of the extent to which teacher candidates' written reflections demonstrated thoughtful and meaningful engagement with their practicum experiences. The analysis focused on identifying signs of critical thinking, self-assessment, and the application of theoretical

knowledge to practical teaching situations. Additionally, the written reflections were instrumental in assessing the depth and substance of these reflections, determining whether teacher candidates were merely describing their experiences or engaging in deeper analysis and learning from them. This data source directly addressed the third research question by exploring the reflective practices developed by student teachers.

Public records are “documents that reflect beliefs, attitudes, and behaviors beyond those of a particular individual” (Hancock & Algozzine, 2006, p. 51). In my study, the public records data source comprised official documents from the Ontario College of Teachers (OCT), the Ontario Ministry of Education, and specific Teacher Education Program Handbooks, among other relevant materials. These documents provided valuable context and background (Patton, 2002; Silverman, 2006) allowing me to understand the philosophy and organizational structure of the program during the early stages of my graduate studies. I analyzed these documents to see how reflective practices are integrated, focusing on the program's goals for developing reflective practitioners. This analysis encompassed historical and conceptual frameworks of the ITE programs at Ontario institutions, as well as entry requirements, course content, and completion criteria.

By closely analyzing both the written reflections and official documents, I aimed to reveal how 'reflection' is constructed, integrated, and implemented within the program, providing a deeper understanding of the concept of 'reflection' as a whole.

Data Analysis Procedures

In this section, I provide an overview of the data analysis procedures employed in this study to interpret the rich qualitative data collected from teacher candidates. Data analysis in qualitative research involves systematically examining and interpreting textual data to identify

patterns, themes, and meanings (Miles et al., 2014), allowing for the descriptive organization of the data in a way that facilitates the interpretation of various aspects of the research topic (Boyatzis, 1998).

Guided by the conceptual framework, which emphasizes understanding the meanings individuals ascribe to their social interactions, I used the thematic analysis framework of Braun and Clarke (2022) to analyze the interview data from teacher candidates. Thematic analysis is a method well-suited for identifying, analyzing, and reporting patterns within data, involving a rigorous process of coding and theme development, allowing for a nuanced understanding of the participants' experiences and perspectives ((Braun & Clarke, 2022; Nowell et al., 2017).

For the analysis of teacher candidates written reflections, I employed thematic content analysis guided by Kember et al.'s framework (2008). Since I used a pre-defined framework, my approach aligns with directed content analysis, which begins with an existing theory or framework to guide the coding process. According to Hsieh and Shannon (2005), directed content analysis is guided by a more structured process than conventional content analysis. Existing theory or prior research guides the discussion and supports initial coding schemes.

These complementary approaches facilitated a comprehensive analysis of the data, enabling me to explore the reflective practices and development of teacher candidates in the ITE program. I will now explain in detail the procedures I used to analyze each type of data.

Thematic Analysis for Teacher Candidates' Interviews

I analyzed Teacher candidates' interviews using 'thematic analysis'. Thematic analysis is an appropriate method to address my research questions one and two, exploring teacher candidates' perceptions and practice of reflection in the ITE program. Thematic analysis is particularly suited to this purpose because it allows for the identification, analysis, and reporting

of patterns (themes) within qualitative data (Braun & Clarke, 2006). By systematically coding and developing themes from the interview data, I was able to uncover the various ways in which teacher candidates conceptualize and engage with reflection. This method provided me with the flexibility to capture the depth and complexity of teacher candidates' experiences, making it possible to generate rich, detailed insights into their reflective practices.

To guide the analysis process, I adopted Braun and Clarke's (2006, 2022) model of thematic analysis (Table 2). This model provided a structured approach for systematically identifying, analyzing, and reporting patterns within the data. However, Braun and Clarke highlighted that "analysis is not a linear process of simply moving from one phase to the next" (Braun & Clarke, 2006, p. 86). Instead, it is a recursive process involving movement back and forth between phases as needed, developing over time and should not be rushed. Braun and Clarke described it "like following a hose that loops randomly across a long grass lawn, back and forth and round and round in every direction, rather than an escalator or a train sending you inevitably in one direction" (Byrne, 2022, p. 97). Hence, by using their six-phase framework 'flexibly' to fit the research questions and data, I was able to ensure a rigorous and thorough analysis that remained true to the participants' experiences and perspectives. The analysis was using an inductive 'bottom-up' approach in which there was no attempt to fit the data into an existing theory (Patton, 2002). Instead, the analysis was "located within, and coding and theme development [were] driven by, the data content" (Braun & Clarke, 2022, p. 10).

Throughout the analysis process, I was aware that, as a researcher, Trainor and Bundon (2021) assure, I needed to be "an active agent in the production of knowledge" (p. 707), and "never divorcing the 'products' of the research from the practices of research production" (p. 724). Thus, I describe below my active and situated analytic process for analyzing the interview

data using this model that provided “a framework for deep engagement as [I] make sense of data” (Braun & Clarke, 2022, p. 128).

Table 2

Braun and Clarke’s (2022) Thematic Analysis Framework

Phase	Process Description
Phase 1: Familiarization	Transcription; reading and re-reading data; noting down initial analytic ideas
Phase 2: Coding	Systematically coding interesting segments across the entire dataset, collating data relevant to each code
Phase 3: Generating Initial Themes	Identifying shared patterned meanings, collating codes into candidate themes, gathering data relevant to each theme
Phase 4: Developing and Reviewing Themes	Assessing initial fit of candidate themes to the coded extracts and full dataset
Phase 5: Refining, Defining, and Naming Themes	Ongoing analysis to fine-tune themes; write a synopsis of each theme, name themes
Phase 6: Writing up	Editing, relating to the research questions; weaving together analytic narrative and data extracts, producing report

(Braun and Clarke, 2022, pp. 35–36)

Phase 1: Familiarizing myself with the Dataset. In this phase, I immersed myself in the data to become familiar with the content of the interviews. Practically, the process began during the interviews, where participants' responses to my questions led to follow-up inquiries. These follow-up questions guided the conversation in unexpected directions, influencing and shaping the understanding of both the participants and myself. During the interviews, I maintained a

journal to jot down notes and observations. This practice was invaluable, as it allowed me to capture non-verbal cues, contextual details, and my immediate reflections on the conversation. These journal notes provided a rich source of supplementary data that complemented the interview transcripts and deepened my understanding of the participants' experiences.

To facilitate the transcription and analysis process, I utilized MAXQDA, a qualitative data analysis software. MAXQDA provided several features that were instrumental in managing and interpreting the data. Specifically, I used the 'memos' and 'comments' functions to record ongoing notes and reflections during the transcription process (see Figure 1 below). These tools allowed me to annotate specific excerpts from the interviews with contextual information and preliminary thoughts, enhancing my engagement with the data.

The transcription process for this study was conducted verbatim, ensuring that the transcriptions remained as close to their original nature as possible to maintain the original meaning conveyed by the participants. This approach was vital in preserving the authenticity of the participant's responses and ensuring that their voices were accurately represented in the analysis. However, I chose not to include non-verbal utterances such as pauses, fillers, and gestures. This decision was based on the focus of my study, which prioritized the content and meaning of the verbal responses over the non-verbal aspects. Excluding these non-verbal elements streamlined the transcription process and kept the analysis centered on the participants' spoken words, which were most relevant to addressing the research questions.

The benefits of this transcription approach were manifold. Verbatim transcription ensured that the data remained true to the participants' original statements, facilitating a more accurate and credible analysis. The use of MAXQDA enhanced the efficiency and depth of the data management and analysis process, while my journal notes provided additional context and

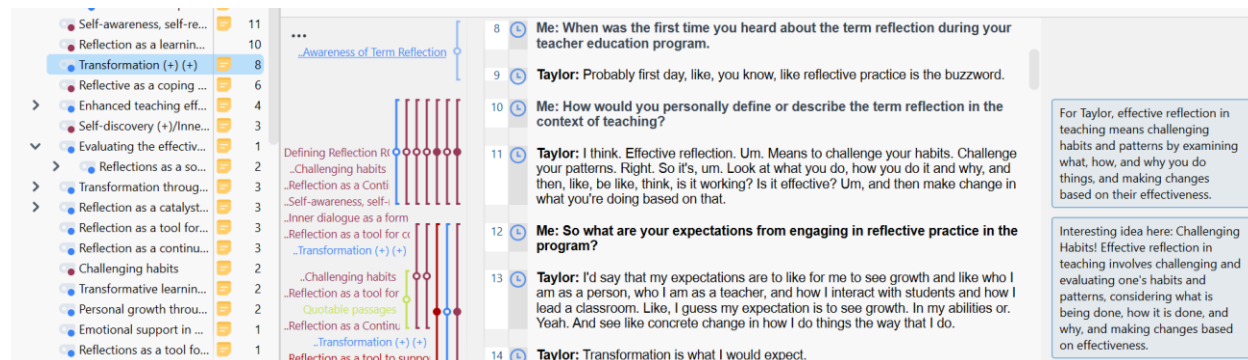
insights that enriched the overall analysis. This comprehensive approach to transcription and data handling ultimately contributed to a more thorough and nuanced understanding of the teacher candidates' reflective practices and experiences in the ITE program.

Phase 2: Coding. In this phase, I engaged in a detailed and meticulous examination of my dataset. I read and reread the transcripts, listened to the audio recordings, and continually referred back to the text to ensure a comprehensive understanding of the original meanings within their context. My objective was to search for meanings and repeated patterns within the data to generate initial codes. It is during this phase that the most frequent or significant ideas are noted down as potential themes (D. Byrne, 2022). This involved identifying relevant or meaningful segments that aligned with my research questions. Drawing on Boyatzis' (1998) concept of recognizing 'codable moments' whenever I 'sensed themes', I labeled these segments with “analytically meaningful descriptions (code labels)” as suggested by Braun and Clarke (2022, p. 35). This approach required me to be specific, capturing single meanings and concepts accurately.

I highlighted words, phrases, and sentences that seemed to indicate 'what reflection means' to teacher candidates, addressing the first research question aimed at understanding how teacher candidates perceive reflection. Additionally, I identified segments that provided insights into how teacher candidates enact reflective practices in the program, addressing the second research question focused on exploring how teacher candidates enact reflective praxes in the ITE program. By working in this fine-grained manner, I ensured that each code was reflective of the underlying meanings and contexts of the data. This thorough approach allowed for a more nuanced analysis, providing a solid foundation for the subsequent phases of thematic analysis. My coding initially produced a few hundred codes. However, in the subsequent phases, I was

able to easily reduce these to a more workable number. Figure 2 below shows a snapshot of the initial coding process using MAXQDA.

Figure 2 *Initial Coding Process: Identifying Relevant Segments and Assigning Code Labels*



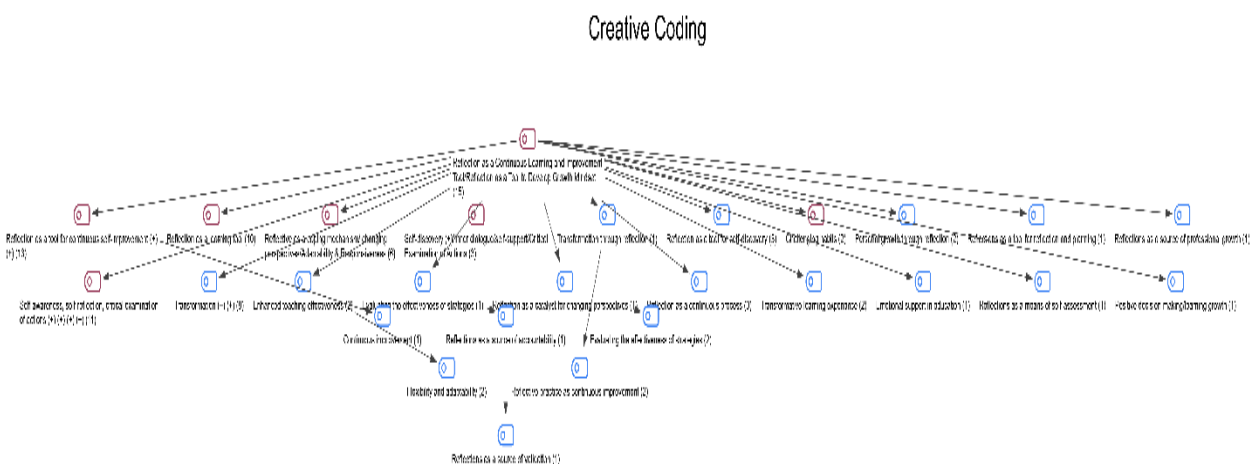
Phase 3: Generating Initial Themes. In this phase, my focus shifted from interpreting individual data items within the dataset to interpreting the aggregated meaning and meaningfulness across the entire dataset (Byrne, 2022). I identified ‘shared patterned meaning’ across the interviews. I ‘questioned the data’ and clustered the codes that might provide ‘a meaningful answer’ to my research questions. As Braun and Clarke (2022) stated, “where codes typically capture a specific or a particular meaning, themes describe broader, shared meanings” (p. 35). I collapsed multiple codes that shared a similar underlying concept or feature of the data into one single code or ‘candidate theme.’ For instance, after merging the codes ‘growth mindset,’ ‘critical examination,’ ‘transformation,’ ‘self-awareness,’ and ‘learning tool’ into the theme ‘Reflection as a Continuous Learning and Improvement Tool,’ I initially considered combining this with ‘Reflection as a Problem-solving Tool.’ However, after further reflection and analysis, I decided to keep ‘Reflection as a Problem-solving Tool’ as a separate theme. This decision was based on the recognition that keeping these themes distinct allowed for a more nuanced discussion of how different aspects of reflection contribute to teaching practice.

Specifically, it highlighted the direct impact of reflection on student outcomes, emphasizing the teacher's commitment to solving problems and improving student-centered practices.

To ensure my coding was both comprehensive and organized, I employed the 'Creative Coding' and 'Smart Coding' tools provided by MAXQDA to visualize the data. These tools allowed me to visualize the codes, along with their assigned segments across all documents or document by document, draw connections between them, add new codes, delete existing ones, and merge similar codes (see Figure 3). By hovering over a code node, I could read the summaries and comments I had included during the transcribing process and initial coding phase, making it easier to assess the relevance of each code. This also facilitated viewing segments within their context in the documents, offering a comprehensive view of how themes were distributed across different interviews. This comprehensive functionality allowed for more contextualization and accurate coding, ensuring that my analysis was deeply rooted in the participants' original meanings and contexts.

Figure 3

Utilization of MAXQDA 'Creative Coding' for Visualizing and Organizing Data



Phase 4: Developing and Reviewing Themes. In phase 4, I engaged in a meticulous process of refining, defining, and naming themes, a process that continued into and overlapped with phases five and six, where I defined and named themes and began writing up the analysis presented in chapter 5.

The purpose of this stage is to “review the viability of the initial clustering, and explore whether there is any scope for *better* pattern development” (Braun & Clarke, 2022, p. 97). It is “to ensure that themes work with the dataset and to code any additional data within themes that have been missed in earlier coding stages” (Braun and Clarke, 2006, p. 91).

Initially, I re-examined the list of potential themes and initial codes identified in the previous phase. This involved a thorough re-engagement with all coded data extracts and the entire dataset, ensuring a comprehensive and nuanced understanding of the data. In a recursive manner, I searched for any opportunities to improve pattern development, constantly assessing the quality and scope of my 'candidate themes' to enhance their richness. My primary aim was to develop a rich analysis that effectively addressed my research questions.

I ensured that each theme was built around a singular central idea and maintained a distinct focus. During this phase, I discarded some initial themes that lacked depth or relevance. Initial codes that did not fit or were deemed irrelevant were either discarded, recreated into new initial codes, or integrated into existing ones. This iterative process allowed for the refinement of my thematic framework, resulting in the consolidation of themes.

Phase 5: Refining, Defining and Naming Themes. Ultimately, I refined my themes, ending up with eight themes that encapsulate the complexities and nuances of the student teachers' interviews. My aim during this stage was to ensure that each theme accurately captured the ‘core concept’ around which it was built. This involved a thorough review of the collated

data extracts for each theme, organizing them into coherent narratives and detailed descriptions. I rigorously evaluated whether the coded extracts effectively represented the essence of each theme and made the necessary adjustments.

Phase 6: Writing up. According to Braun and Clarke (2022), “formal analytic writing often starts from phase 3” (p. 36). Recognizing the importance of this, I began writing early in the process while organizing relevant data extracts under candidate themes. My goal was to eventually craft a coherent and persuasive narrative that would effectively address my research questions, which focus on teacher candidates’ perceptions of reflection and their reflective practices within the ITE program.

The final analysis involved blending data extracts with my own analytic narrative to provide a clear interpretation of the data and its implications. To present my findings effectively, I structured the findings chapter around key emergent themes aligned with the research questions, ensuring that each theme was supported by representative excerpts from the data. This approach allowed the voices of the teacher candidates to remain central to the analysis while connecting their reflections to the broader constructs outlined in the conceptual framework. Additionally, I employed thematic analysis techniques to identify patterns and meanings within the data, offering a nuanced understanding of how teacher candidates perceive and enact reflective practices. By grounding my interpretation in the lived experiences of participants, the findings chapter captures the complex interplay of personal, social, and contextual factors that shape their reflective growth.

Content Analysis for Teacher Candidates’ Written Reflections

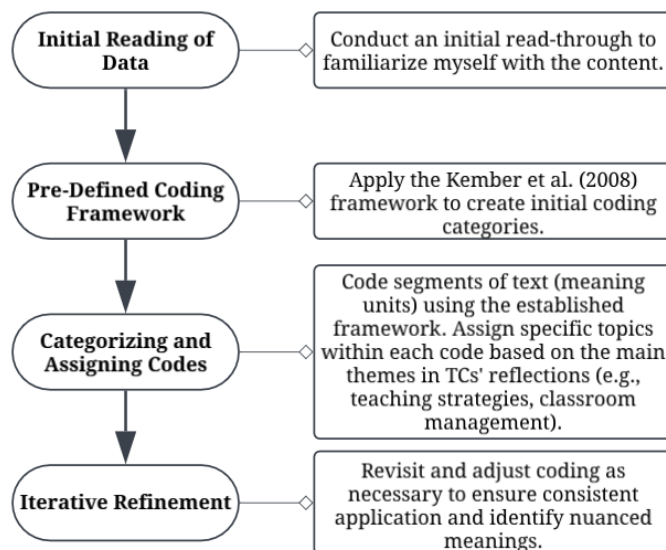
I analyzed teacher candidates’ written reflections using content analysis (Kember et al., 2008). Content analysis is an appropriate method to address my research question 3 (RQ3),

exploring evidence of reflection in teacher candidates' written reflections during their practicum in the ITE program. Content analysis is particularly suited to this purpose because it provides a systematic and objective means of describing and quantifying phenomena (Elo & Kyngäs, 2008). To facilitate the content analysis process, I utilized MAXQDA once more.

In this study, I employed content analysis in a deductive manner by applying Kember et al.'s (2008) framework to analyze textual data, following the approach suggested by Mayring (2014). This method aligns with directed content analysis, which begins with an existing theory to guide the coding process (Hsieh & Shannon, 2005). Unlike conventional content analysis, directed content analysis follows a more structured process where prior research supports the initial coding scheme. This approach is particularly suited for studies aiming to align with established theories or frameworks (Bengtsson, 2016). Figure 4 illustrates the process I implemented for directed content analysis of Teacher candidates' written reflections. In the following sections, I discuss the process in detail.

Figure 4

Coding Process Flowchart for Directed Content Analysis of Teacher Candidates' Written Reflections



In addressing RQ3, which investigates the evidence of reflection in teacher candidates' written reflections during their practicum, content analysis proved to be an effective methodological choice. Coffey (2014) notes that "documents can tell us a lot about a social setting or an individual life" (p. 5), emphasizing the value of written reflections for understanding Teacher candidates' reflective practices within their teaching context. This method enables systematic and objective examination, facilitating an in-depth exploration of Teacher candidates' engagement in reflective processes.

Krippendorff (2019) underscores that content analysis leverages the contextual nature of texts, allowing qualitative data to reveal patterns and insights within broader social or theoretical frameworks. He highlights that texts can be made to speak to the analyst in ways that other methods cannot. This capacity to draw inferences about the depth of engagement in reflective practices, assessing how teacher candidates integrate theoretical knowledge into practice, underscores the method's suitability for this study. Through a directed content analysis guided by Kember et al.'s (2008) framework, this research provides a structured understanding of the levels and quality of reflection evident in teacher candidates' written reflections.

The teacher candidates' written reflections analyzed in this study encompassed their reflections on field experiences during their practicum. These reflections were personal accounts that detailed their observations, teaching practices, challenges, and insights gained while interacting with students and engaging in classroom activities. The iterative process of analyzing this data began when it was collected and was completed in the summer of 2024. It is important to note that teacher candidates were not aware that their reflections would be analyzed for the depth of reflection using the Kember et al. (2008) protocol at the time they wrote them. This

ensured that their reflections were genuine and uninfluenced by the knowledge of subsequent analysis.

I then considered the context, purpose, and audience for which the teacher candidates' reflections were composed. These reflections were written as part of their practicum requirements within the ITE program. Although not mandatory, many teacher candidates maintained 'thought chronicles,' providing ongoing reflections on their teaching practice during practicum, which they shared with practicum professors. Additionally, teacher candidates created blog posts as part of their final program projects, referred to as 'Digital Hubs,' showcasing their work and reflecting on their experiences throughout the program. These reflections were not solely personal but were also shared with their teaching practice supervisors, who provided feedback, albeit without assigning formal grades.

The dual purpose of these reflections—serving both as personal learning tools and as materials shared with evaluators—can influence their authenticity. The potential for teacher candidates to write reflections aimed at aligning with perceived expectations of their supervisors is a notable consideration, as highlighted in the literature examining the influence of assessment on reflective practice (M. Ryan & Ryan, 2013; M. Smith & Trede, 2013). This phenomenon emerged in the teacher candidates' interviews, discussed further in Chapter 5, suggesting that teacher candidates might craft their reflections to meet their professors' expectations rather than engaging in purely genuine self-reflection.

The analysis of these written reflections sheds light on how teacher candidates navigate reflective practice within the constraints of evaluation and perceived expectations, potentially impacting the depth and authenticity of their self-reflection (Moon, 2013). Recognizing these contextual influences is vital for interpreting the reflective quality in Teacher candidates'

journals and understanding the complexities of how reflective practice is shaped within an evaluative framework.

The purpose of this analysis is to assess and measure the depth of reflection and reflective abilities of teacher candidates (Teacher candidates) as demonstrated in their written reflections. Through this analysis, I aim to draw inferences about the extent of their engagement in the reflective process, identifying and categorizing the various elements that contribute to their reflective thought. This approach highlights the complexity of their cognitive engagement and the different levels at which teacher candidates reflect on and evaluate their teaching practices, aligning with the objective of Research Question 3.

To guide the analysis of teacher candidates written reflections, I employed Kember et al.'s (2008) four levels of reflection framework (see Table 3). This framework categorizes reflective practice into levels, each representing a different depth of cognitive engagement: (1) nonreflection (habitual action), (2) understanding, (3) reflection, and (4) critical reflection. Below, I describe each level in detail:

1. **Nonreflection (Habitual Action):** At this level, individuals recount their teaching experiences without engaging in analysis or questioning. The focus is on routine actions and procedures, often describing what happened without further reflection or evaluation. Teacher candidates' written reflections were initially coded as non-reflective when they simply described teaching experiences without connecting theoretical knowledge to practice. However, I noted that nearly all entries contained some element of non-reflection, where Teacher candidates recounted events without evaluation. Most reflections then progressed to higher levels, showing 'understanding,' 'reflection,' or 'critical reflection.' This recurring pattern, which I termed 'dominant flow,' indicated that

reflections typically began at non-reflection before evolving into deeper engagement (Kolb, 1984; Mezirow, 1991; Schön, 1983). This dominant flow, evident across most reflections, started with recounting classroom events and advanced to more thoughtful and analytical engagement, discussed further in Chapter 5.

2. **Understanding:** This level demonstrates a surface-level comprehension of teaching concepts and practices. While individuals recognize teaching strategies and their purpose, they do not yet analyze their effectiveness or impact on student outcomes. The focus is on acknowledging what occurred and why, without delving into deeper implications. Teacher candidates' written reflections coded as 'understanding' fell short of the 'reflection' level, as they lacked an analysis of how the experience could inform and shape the teacher candidate's future teaching practices.
3. **Reflection:** At this level, individuals engage in a critical assessment of their teaching practices and link them to prior knowledge or theoretical understanding. Reflection moves beyond mere description, focusing on the impact of teaching on student learning. This stage involves evaluating experiences, identifying areas for enhancement, and proposing strategies for future practice. Writing coded as 'reflection' demonstrated that connections were made between conceptual knowledge and the practical experience of student teaching. Reflective entries indicated that field experiences were shaping the teacher candidate's educational philosophy and teaching approach. Direct applications were evident as candidates connected their observations from the field to their future teaching practices. For instance, a teacher candidate might analyze the methods used in a lesson and outline potential improvements or link classroom experiences to their personal teaching philosophy or anticipated future practices.

4. **Critical Reflection:** This is the highest level of reflective thinking, marked by transformative insights. At this stage, individuals critically examine and challenge their own assumptions, question established norms, and experience a shift in perspective. Critical reflection often addresses themes of social justice, equity, and personal beliefs, resulting in significant changes to teaching philosophy and practice. For a teacher candidate's writing to be coded as critical reflection, there must be evidence of a fundamental change in their philosophical assumptions or conceptual frameworks about teaching. This level is characterized by a clear shift in thinking, accompanied by a philosophical explanation of a newly formed belief or understanding.

Table 3

Summary of Kember's Levels of Reflection

Reflection Level	Characteristics
Non-Reflection (Habitual Action)	Routine recounting without analysis; procedural focus.
Understanding	Recognition of concepts and strategies; lacks deeper evaluation or impact analysis.
Reflection	Evaluative and analytical thinking; connects experiences to theory; considers student outcomes.
Critical Reflection	Challenges assumptions; transformative thinking; integrates equity and shifts in perspective.

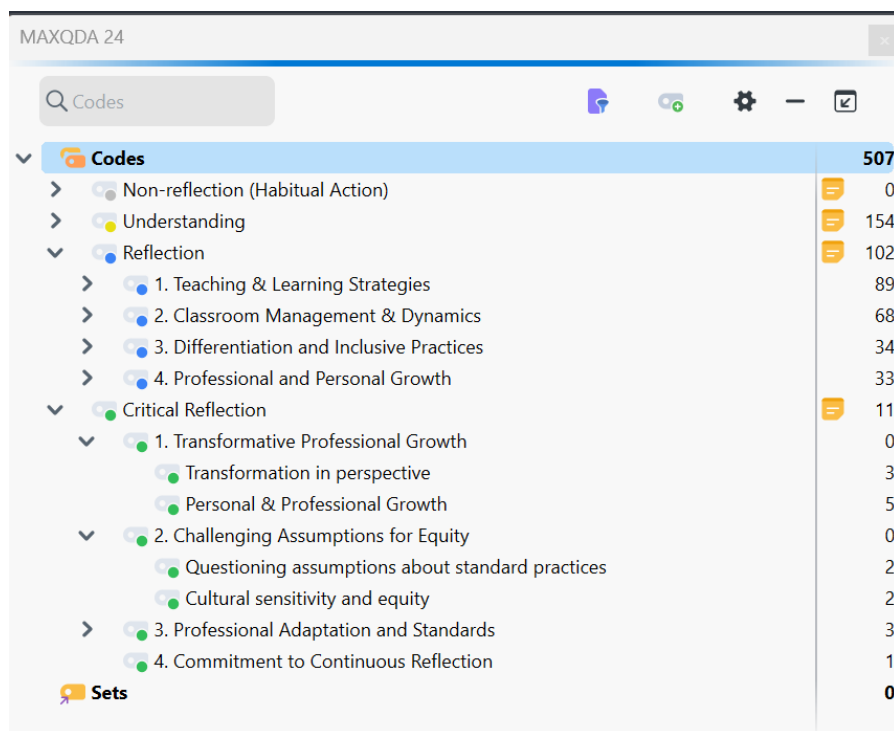
Following the application of Kember et al.'s framework (2008), I conducted a line-by-line analysis of the teacher candidates' written reflections to identify and categorize meaning units—segments of text encapsulating a single idea or theme—within the respective levels of reflection. Treating these segments as meaning units, rather than coding individual words or sentences, provided a comprehensive understanding of the reflections and their embedded nuances (Elo & Kyngäs, 2008). The coding process utilized these units as heuristic tools to foster new interpretations and deepen insight into the reflective process (Coffey & Atkinson, 1996; Strauss & Corbin, 1998).

During analysis, it became evident that journal entries often contained overlapping layers of reflection, making definitive categorization challenging. In instances where reflections exhibited elements of multiple levels within a single meaning unit, the highest level of reflection was coded to maintain consistency (G. W. Ryan & Bernard, 2003). This approach revealed recurring patterns, or what I termed 'patterns of dominant flow,' in which teacher candidates' reflections frequently transitioned from basic recounting to more analytical and critical levels of thought. This progression, indicative of the evolving depth of reflection, is explored further in Chapter Five.

In addition to coding for levels of reflection as per Kember et al.'s (2008) framework, I also analyzed the content of teacher candidates written reflections to identify the main topics they focused on within each level of reflection. Once the coding for levels of reflection was completed, I conducted a secondary analysis to identify the recurring topics in each coded segment. Figure 5 below displays the hierarchical structure of the codes I used, showing how main codes and sub-codes are organized according to Kember et al.'s framework and the topics within each level.

Figure 5

Sample Code System Hierarchy and Distribution of Coded Segments in Teacher Candidates' Written Reflections



This thematic grouping allowed me to gain insights into the specific areas of teaching practice and personal development that teacher candidates engaged with most frequently at each level of reflection. Identifying these main topics provided context for how teacher candidates navigated their reflective practice, illustrating not only the depth of their reflections but also the focus areas they considered most significant. This added dimension to the analysis helped to show the relationship between the level of reflection and the subject matter teacher candidates engaged with. The main topics identified within each reflection level are presented in detail in the findings chapter, where specific examples and thematic distributions are discussed to illustrate teacher candidates' reflective focus areas.

Ethical Considerations

Ethical considerations were carefully managed to protect participants' rights and maintain research integrity. Each participant received a consent form ([Appendix B](#)) detailing the study's purpose, their role, and their rights, including the option to withdraw at any time without consequences, with all associated data being destroyed upon request.

Confidentiality and anonymity were strictly maintained, with personal identifiers removed from all data. Participants could choose to remain anonymous, and data was securely stored on password-protected devices to be destroyed ten years after the study's completion.

The study minimized risks by handling personal reflections with sensitivity. While some discomfort in discussing these reflections was acknowledged, the benefits included advancing the understanding of reflective practices in teacher education and offering participants insights into their processes.

The voluntary nature of participation was emphasized, ensuring participants understood their involvement was optional and wouldn't impact their standing in the program. This approach ensured participants felt secure and respected throughout the research process.

Before commencing the study, ethical approval was sought and obtained from the University of Ottawa's Ethics Review Board. This process involved submitting a detailed research proposal outlining the study's objectives, methodology, potential risks, and measures to protect participants' rights and confidentiality. The board rigorously reviewed the proposal to ensure that the research met ethical standards, particularly concerning informed consent, confidentiality, and the voluntary nature of participation. Approval was granted once the board was satisfied that the study adhered to all ethical guidelines, allowing the research to proceed.

Trustworthiness and Rigor

In conducting this study, I have taken deliberate steps to ensure its trustworthiness and rigor, which are critical elements in qualitative research. Trustworthiness, as defined by Lincoln and Guba (1985), encompasses credibility, transferability, dependability, and confirmability—qualitative equivalents to the quantitative measures of validity and reliability. These criteria help to ensure that the research process is methodologically sound and ethically robust.

The literature emphasized the importance of establishing trust in the accuracy, relevance, and fairness of the research. Sandelowski (1993) highlighted that “rigor is less about adherence to the letter of rules and procedures than it is about fidelity to the spirit of qualitative work” (p. 2). This perspective aligns with the notion that the pursuit of rigor in qualitative research should not become so rigid that it undermines the creativity and validity of the study. Rolfe (2006) further argues that the evaluation of qualitative research should consider the unique context of each study, with quality judgments being made based on the depth and insight of the research findings.

In my study, I employed multiple strategies to achieve and demonstrate trustworthiness. To ensure credibility, I used procedures that minimized investigator bias, such as triangulating data from interviews, reflection journals, and my notes. This approach allowed for cross-verification of data, ensuring that participants' accounts were accurately represented (Ely et al., 1991). Additionally, I remained reflexive throughout the research process, consistently examining my biases and assumptions, which is crucial for maintaining interpretive validity.

Maxwell (2013) emphasized that descriptive and interpretive validity are essential for ensuring that qualitative research accurately reflects the reality it aims to describe. In this study, I achieved descriptive validity by transcribing interviews verbatim and including detailed

descriptions of the context and non-verbal cues observed during the research. This meticulous documentation ensured the accuracy and thoroughness of the data. For interpretive validity, I engaged deeply with participants, striving to understand their perspectives and experiences from their point of view.

From an epistemological standpoint, the constructivist approach, which underpins this study, emphasizes understanding individuals and their interpretations of the surrounding world. In this paradigm, participants are seen as co-creators of knowledge, working alongside the researcher in a dynamic process of meaning-making. However, as a researcher, I recognized that my personal, cultural, and historical backgrounds inevitably influenced my interpretations and conclusions. To address this, I was acutely aware of the potential for bias and took deliberate steps to bracket my own preconceptions and emotional responses during data collection and analysis. As Maxwell (2013) suggested, the influences that researchers bring to the study should not be seen merely as bias but as valuable components of the research process. Instead of attempting to eliminate these influences entirely, I sought to acknowledge and transparently describe my positionality within the research, enhancing the credibility and trustworthiness of my findings.

To further ensure the study's rigor, I made the research process transparent by providing a detailed description of the research design, data collection methods, and analysis techniques. This transparency is crucial for ensuring dependability, as it allows others to follow the research process and assess its reliability. Additionally, by adopting a standard coding system and transcription convention, I ensured consistency in data analysis, which further strengthens the study's reliability.

Furthermore, the use of a well-defined conceptual framework provided an additional layer of structure, allowing me to interpret the data in a meaningful and coherent way. This approach, combined with the strategies employed to maintain descriptive and interpretive validity, contributed significantly to the study's overall trustworthiness and rigor.

Concluding Remarks

This chapter detailed the methodology employed to explore the reflective practices of teacher candidates within one ITE program in Ontario. This chapter outlined the research design, data collection methods, analysis techniques, and ethical considerations integral to the study. Grounded in a constructivist paradigm, I used a qualitative case study approach in my research to deeply investigate how teacher candidates perceive and engage in reflective practices.

The chapter elaborated on the selection and recruitment of participants, emphasizing purposeful and maximum variation sampling strategies to ensure a diverse and information-rich sample. The primary data collection methods included in-depth, semi-structured interviews and an analysis of teacher candidates' written reflections. Official program documents were also reviewed to contextualize and support the findings.

Thematic analysis, following the frameworks of Braun and Clarke (2022), and content analysis, guided by Kember et al.'s (2008) framework, were utilized to systematically interpret the data. These complementary approaches provided a structured yet adaptable method for identifying patterns and themes within the qualitative data.

Ethical considerations were rigorously addressed, ensuring confidentiality, informed consent, and participant welfare throughout the study. Additionally, measures to enhance the study's trustworthiness and rigor were implemented, including triangulation, reflexivity, and transparency in the research process.

Overall, the chapter provided a comprehensive overview of how the research was conducted, ensuring that the findings are methodologically sound and ethically grounded. The next chapters will delve into the findings and discussion, offering deeper insights into the reflective practices of teacher candidates and their implications for teacher education.

CHAPTER 5: FINDINGS

What we observe is not nature itself, but nature exposed to our method of questioning.

– Werner Heisenberg (1958)

This chapter presents the findings of the study, structured around the research questions that guided the investigation. The chapter is divided into two main sections to provide a comprehensive analysis of teacher candidates' reflective practices:

Part 1: Interview Data – This section presents themes that emerged from the analysis of teacher candidate interviews, offering insights into how they understand, experience, and enact reflection within their Initial Teacher Education (ITE) program.

Part 2: Written Reflective Journals – This section examines teacher candidates' written reflections from their practicum experiences, analyzing the depth and nature of their reflective engagement.

The findings in this chapter are organized around the study's three research questions, which examine teacher candidates' understandings of reflection, their enactment of reflexive praxis, and the evidence of reflection in their written practicum work. Table 4 below maps the emergent themes to each research question, providing an overview of how the data were analyzed and interpreted. The analysis was conducted with a dual focus: first, to uncover the emergent themes from the teacher candidates' reflective practices, and second, to explore how these themes provide insights into their development as reflective practitioners. The findings are presented in response to the research questions, with each section exploring themes that address these questions in depth.

These themes emerged through a rigorous process of thematic and content analysis, where I systematically analyzed the data to identify patterns, insights, and recurring elements in

the teacher candidates' interviews and written reflections. These themes are interconnected, reflecting the dynamic interplay between personal insights and the broader social and educational contexts of teacher education. They offer a nuanced understanding of how teacher candidates engage in reflective practices, providing insights into their development as reflective practitioners.

While this chapter focuses on presenting the emergent themes that directly address each research question, the subsequent discussion chapter will interpret these findings through the lens of the theoretical framework outlined in Chapter 3. This approach ensures that the findings are grounded in both the empirical data and the study's conceptual underpinnings, offering a comprehensive understanding of the reflective practices of teacher candidates.

Mapping of Emergent Themes to Research Questions

As outlined in Chapter 3, this study employed thematic and content analysis to identify and categorize the emergent themes from teacher candidates' reflections and interviews. These themes illuminate the multifaceted experiences of teacher candidates within an Ontario ITE program, offering a lens through which their reflective practices can be understood in relation to the study's research questions. Given the interconnected nature of the reflective practices, some overlap between themes is inevitable. This overlap underscores the complexity of reflective processes and will be further examined in Chapter 6, where the implications of these findings will be discussed in greater detail.

Table 4 below provides an overview of how the emergent themes identified in this study align with the research questions. Throughout the findings, I will briefly reference these themes as they pertain to each research question, laying the groundwork for a more comprehensive analysis in the discussion chapter.

Table 4*Mapping of Analysis Focus to Research Questions*

Research Questions	Emergent Themes/Analysis Focus
RQ1: What does the term ‘reflection’ mean for teacher candidates studying in the Initial Teacher Education (ITE) program?	<ul style="list-style-type: none"> - Theme 1: Reflection as a Continuous Learning Tool - Theme 2: Reflection as a Problem-solving Tool - Theme 3: Reflection as Formal vs Informal Practice¹
RQ2: How do teacher candidates in an Ontario Initial Teacher Education program enact reflexive praxis within their ITE program?	<ul style="list-style-type: none"> - Theme 4: Reflection in, on, and for Action - Theme 5: Interactions with Professors - Theme 6: Interactions with Associate Teachers - Theme 7: Barriers to Reflection
RQ3: What evidence of reflection is demonstrated in teacher candidates’ written reflections on their practicum experiences?	Levels of reflection based on Kember et al. (2008) Framework

¹ In the context of this study, *formal reflection* refers to structured, course-assigned tasks such as written journals, prompts, or portfolios required within the teacher education program. In contrast, *informal reflection* encompasses spontaneous, unassigned moments of introspection or discussion that arise during teaching experiences, often occurring in conversation with peers, mentors, or internally during or after classroom events.

Part 1: Interview Data

To explore how teacher candidates understand, experience, and enact reflection within their ITE program, this section presents findings from the interview data.

The themes that emerged from the interviews provide insight into how teacher candidates construct their understanding of reflection, how they engage in reflective practices, and the factors that influence their development as reflective practitioners. These findings highlight the dynamic relationship between personal experiences, program expectations, and the broader social and institutional contexts in which reflection is practiced.

The following sections present the findings in relation to each research question, beginning with an analysis of how teacher candidates define and interpret the concept of reflection.

Diverse Interpretations of ‘Reflection’ among Teacher Candidates

My first research question explores how teacher candidates enrolled in the Initial Teacher Education (ITE) program understand the concept of ‘reflection’. To address this question, I present the findings organized by the emergent themes that capture the various meanings and interpretations of ‘reflection’ as understood by the teacher candidates. These themes offer insights into how teacher candidates construct and interpret the concept of reflection within the context of their learning experiences. By examining these interpretations, the findings reveal how personal, social, and contextual factors shape their understanding and engagement with reflective practices, emphasizing the dynamic interplay between theory and lived experience in their educational journey.

Three key themes emerged from the coding exercise of the interviews with student teachers about their perceptions of reflection during the ITE program. These themes are:

1. Reflection as a Continuous Learning and Tool
2. Reflection as a Problem-Solving Skill
3. Reflection as Formal vs. Informal Practice.

These themes illustrate the diverse ways in which the eight teacher candidates developed their understanding of reflective practice within the context of their ITE program. A central thread across these themes is the continuous process of gaining new perspectives, which evolves through experience, reflection, and engagement with their educational and practical environments. This ongoing process highlights the dynamic interplay between personal insights, social interactions, and contextual influences, emphasizing how teacher candidates actively construct and refine their understanding of reflection. In the following sections, I will detail the findings associated with each of these themes.

Theme 1: Reflection as a Continuous Learning and Improvement Tool

One of the themes that prominently emerged from teacher candidates interview data is the concept of reflection as a continuous learning tool and its role in developing a growth mindset. This theme captures how teacher candidates view reflection as integral to ongoing personal and professional development, highlighting the dynamic nature of learning and teaching. It underscores the importance of introspection and self-evaluation in fostering continuous learning and cultivating a mindset oriented toward growth and development.

One teacher candidate, Alex, views reflection as an essential act of stepping back and analyzing one's actions to improve future decisions. However, she highlights failures as significant catalysts for reflection:

Reflection is like when something goes really bad, I take a step back and reflect on what I have done in certain situations and try to make a better choice next time. It is about

reflecting on myself, and my teaching skills... and observing them to see how I can make them better next time. I feel that after reflecting, I should have a better result.

Alex's approach to reflection is goal-oriented, focusing on making better choices in the future. This perspective highlights that challenges and setbacks often lead to the most valuable learning experiences. By acknowledging and analyzing failures, educators can identify areas for improvement and develop strategies to enhance their teaching practices (Brown & Campione, 1994; Simpson et al., 2020).

Unlike Alex, who primarily focuses on learning from failures, Morgan and Dylan use the term 'growth mindset' to describe reflection as a process of learning from both failures and successes. For example, Morgan perceives reflection as a powerful tool to assess and enhance her teaching practices:

Reflection ... means that every single lesson, every single day, I think about what I did and how I did it. Engaging in self-reflection and self-assessment helps me ask, where did I go wrong? What went well and how could I improve? This process fosters a growth mindset ... Having a growth mindset is key. Self-reflection that leads to a growth mindset means you're willing to learn every single day from everyone, from your mistakes, from your challenges, from your failures, from your wins, from your losses, from everything. As long as you have a growth mindset, you self-reflect and try to become better at what you're doing.

Morgan's reflection process involves determining whether to maintain or alter her approach based on its effectiveness. As she notes, "am I going do the same thing? Or am I going do it differently next time?" She further elaborates on the importance of adapting strategies to improve student outcomes: "It's about adapting my teaching to be more inclusive and effective

for all students.” This highlights her commitment to using reflection as a tool for continuous improvement and adaptation, ensuring that her teaching methods evolve to better meet the needs of her students. Through this reflective practice, Morgan embodies the essence of a growth mindset and ongoing learning, key components of this theme.

In the same vein, Dylan notes:

Reflection to me is looking back at what happened and evaluating how you could either benefit or grow from trying an alternative or repeating the same action. Did it work for you? If it did, there’s always room for improvement. How could you change it to make it work even better?

Dylan’s perspective reinforces the idea that reflection is not merely retrospective but also prospective—it involves a continual process of self-evaluation and forward planning. His emphasis on improvement, even when something works, underscores a mindset oriented toward refinement and intentional growth. Like Morgan, he views reflection as a means to enhance teaching effectiveness, which aligns with the broader theme of reflective practice as a dynamic, iterative process.

Similarly, Jordan, and Riley emphasize the importance of assessing both successes and failures and using these insights to foster growth and improvement. To Jordan, reflection is:

evaluating what went well and what could be improved for the next time. I ask myself if I was able to reach all the learners and whether I should do the same thing again or change my approach. If something works well, I’ll note it as a success and consider using it again, even though the circumstances might change. Reflection involves looking at my actions critically and deciding whether to repeat them or do something different next time.

Jordan's reflection illustrates a balanced approach that values both affirming effective practices and identifying areas for change. By critically assessing what worked and why, she demonstrates an awareness of the contextual nature of teaching, where strategies must be adapted to varying classroom situations. Her focus on reaching all learners highlights a commitment to equity and responsiveness, reinforcing the theme of reflection as a thoughtful, intentional act aimed at professional growth and inclusive practice.

For Riley, reflection highlights a comprehensive and dynamic approach to professional growth. Reflection, Riley explains, is not merely a retrospective activity but a continuous and iterative process:

When reflecting, I look back at my day, considering my lessons and interactions with students. Initially, I assess how the day went in general – was it a good day, or did some things go awry? This helps gauge the overall temperature of the day. If it went well and involved something new, I explain why I think it succeeded. Conversely, if things didn't go as planned, I identify the issues, such as unexpected events or a student's outburst, and consider what could have been done differently to prevent such occurrences in the future. Additionally, I consider my mental preparedness for the day. Was I exceptionally tired, which might have impacted my effectiveness? This comprehensive reflection helps me put my best foot forward each day.

Riley's reflective practice encompasses a holistic evaluation of lessons and interactions, an analytical examination of successes and challenges, and a forward-looking perspective aimed at improving future teaching practices. Riley's perception underscores the importance of adaptability and self-awareness in the ongoing development of effective teaching strategies. Together, Jordan and Riley's perspectives highlight the belief that reflection is not just about

recognizing what worked but also about identifying ways to enhance future practice. This mindset underscores the importance of continuous improvement, critical thinking, and adaptability in teaching.

Cameron illustrates how reflection serves as a continuous learning tool, by allowing students and teachers to express their feelings and opinions freely. She states:

Being given the opportunity to freely express how you feel about something, whether it is positive or negative, without fear of criticism or penalties, is crucial. This is the main takeaway from reflections ... For myself, as a teacher and as a human being, the importance of reflection is evident. You learn from it and know what to do next time because of this reflection.

Cameron thinks that reflection is valuable for both students and teachers to learn and improve for the future “to take it forward for their future grades, future classrooms, future everything.” By reflecting on current experiences, teachers can make informed decisions that will positively impact their future classrooms and teaching practices. This forward-thinking aspect of reflection is crucial for continuous growth and adaptation in the educational field.

Among the participants, Taylor offers a unique definition of reflection that adds a distinctive dimension to our understanding. Unlike others who primarily focus on reflection as a means of learning from past experiences, Taylor emphasizes the importance of challenging existing habits and patterns to evaluate their effectiveness and make necessary changes. This process is essential for growth as both an individual and a teacher. As she puts it:

Effective reflection means to challenge your habits, challenge your patterns, look at what you do, how you do it and why, and then, think, is it working? Is it effective? and then make change in what you're doing based on that.

By emphasizing the need to question habitual actions and underlying assumptions, Taylor frames reflection as a transformative process. She further elaborates on her expectations from reflection, “My expectations are to see growth in who I am as a person, who I am as a teacher, and how I interact with students and how I lead a classroom. I guess my expectation is to see growth.” Her expectation of personal and professional growth through this critical engagement suggests a strong alignment with reflexive praxis, where the educator’s identity and practice evolve in tandem. This perspective enriches the theme by underscoring reflection as both an inward and outward journey of change.

The emphasis on a growth mindset and learning from both successes and failures further connects teacher candidates’ practices to Dweck’s (2006) research on growth mindset, which provides a foundational understanding of how viewing abilities and intelligence as developable can lead to greater motivation and achievement. Dweck emphasizes that learning from both successes and failures is essential for growth and improvement, which aligns with the principles of reflective practice in education.

By highlighting the iterative process of reflecting on past actions and refining future goals, Adrian underscores the transformative power of reflection in achieving long-term objectives. He describes reflection as “thinking about your actual thinking, a metacognition style of thinking.” He articulates how reflective practices not only serve as a means of self-assessment but also as a precursor to effective goal setting:

For me, reflection is like premature goal setting. You do something, reflect on it, and think about how you can do it better next time. That’s the beginning of creating a goal. If it is important, you think about it again, and once you have built up enough reflection, it

turns into a goal. Then it is about figuring out how to reach that goal, continuously reflecting on how to get there.

Adrian's approach aligns with established theories of reflective practice and professional development, which emphasize the importance of self-awareness and strategic planning in personal and professional development, such as Donald Schön's (1983) theory of reflective practice, which posits that professionals learn and improve through reflection-in-action and reflection-on-action. Additionally, the concept is supported by Kolb's (1984) Experiential Learning Theory, which highlights the role of reflection in the learning cycle as a means to transform experience into actionable knowledge. By continuously reflecting on their experiences, individuals can identify areas for improvement, set strategic goals, and devise practical plans to achieve these goals, thereby fostering a culture of ongoing learning and development.

Under this theme, teacher candidates view reflection as an essential practice for their continuous development and learning. They perceive reflection as a process that helps them evaluate their teaching practices, identify strengths and weaknesses in their lessons, rectify mistakes, and make necessary adjustments to improve and grow.

The excerpts from teacher candidates imply a deep commitment to using reflection as a tool for continuous improvement, critical analysis, adaptability, and professional growth. These implications align with the literature on reflection, which describes it as a special form of thought. For example, their practice of evaluating what worked and why, and considering how to improve, echoes Dewey's idea of reflective thought as a means to deepen understanding and inform future actions. Additionally, their definitions are consistent with Schön's (1983) concept of reflection-on-action, where teachers think back on their actions to determine potential improvements for the future. Moreover, their reflections on their instructional strategies and

student interactions, and their consideration of how to improve, are in keeping with Danielson's (2007) view of reflection as essential for professional growth. Their practice of assessing what worked and identifying areas for enhancement supports Danielson's assertion that reflective practice is crucial for adapting and refining teaching methods to achieve better educational outcomes.

However, teacher candidates' perception of reflection tends to focus through a teacher-centric lens, emphasizing the evaluation of instructional practices to identify strengths and weaknesses. Their perceptions of reflection focus primarily on procedural aspects of teaching, potentially overlooking the collaborative and societal dimensions essential for comprehensive professional growth. This individualistic approach could limit their ability to address broader educational and societal issues, which are vital for holistic professional development and a well-rounded teaching practice. Dewey's broader vision of reflective thinking encourages educators to engage in a critical examination of beliefs and practices, considering their wider social, ethical, and experiential implications. His perspective promotes a holistic approach that goes beyond merely refining teaching techniques to include understanding the social and cultural contexts of education. Griffiths (1998) and Benade (2015) similarly stress that reflective practice should encompass more than technical proficiency, addressing the social, political, and ethical dimensions of teaching and learning.

To fully realize the potential of reflective practice, there is a need to broaden this focus. By incorporating a more holistic approach that considers social, ethical, and political dimensions—aligned with Aoki's, Freire's, and Van Manen's theoretical contributions—teacher candidates can develop a richer and more impactful understanding of their role as educators. This expansion (further discussed in chapter 6) would encourage teacher candidates to engage more

deeply with the complexities of teaching and learning, ultimately fostering a more inclusive and socially responsive educational practice.

Theme 2: Reflection as a Problem-solving Skill

The second emergent theme illustrates how teacher candidates perceive reflection not only as a means for personal development but also as a vital problem-solving skill. While their definitions of reflection remain predominantly teacher-centric, focusing on self-improvement and instructional strategies, they also recognize the necessity of using reflective practices to deal with the challenging situations they face with their students and respond to student needs. Both themes can be seen as complementary. Both themes emphasize the role of reflection in the teaching process, but they focus on different aspects of its application. The first theme focuses on the teacher's growth and development. The second theme focuses on student engagement and adapting teaching methods to support students.

In their interviews, teacher candidates demonstrate how reflective practices help them address and resolve challenging situations in the classroom, manage behavioral problems, accommodating special needs, improve engagement strategies, understand student behavior, and refine classroom management techniques

For instance, Alex recounts a specific incident on the second day of school involving a student who refused to enter the classroom. The teacher candidate observed that the student stood outside for 35 minutes, still wearing his backpack. After attempting to instruct the student to leave his backpack on the hook, she realized that the student, being new to the school and the province, was uncomfortable taking his backpack off. Reflecting on this initial interaction, Alex changed the approach by allowing the student to bring his backpack inside the classroom. She explains:

He immediately came inside, sat down, and started doing the work. Even though I wasn't his regular teacher, I reflected on what I had initially said to him. The first thing I told him was to take his backpack and leave it on the hook. Reflecting back, I realized that this instruction made him stand there, not wanting to enter the classroom. It was all about his backpack.” This example highlights how reflection enabled Alex to understand the underlying issue and adapt her approach, showcasing reflection as an effective problem-solving skill in teaching.

Similarly, Jordan emphasizes the importance of reflection in understanding student behavior and improving classroom management. She demonstrates how she used reflection to identify an issue during carpet seating time, where students' preference to sit with friends led to confusion and unexpected behaviors:

To address this issue without singling out any specific students, I made a note to find a better seating arrangement. I decided to implement a seating plan with my AT's help. I designated specific spots (e.g., ‘This is A, this is B, this is S, and this is Z’) and instructed the students to find their assigned spots and sit down. This reflective practice was effective because it provided structure while allowing the students to find their places.

This is an example of how reflection helps me improve classroom management.

Jordan’s reflection illustrates how attentiveness to student behavior and classroom dynamics can lead to practical, proactive solutions. Rather than assigning blame, she used reflection to reframe the situation as a learning opportunity, leading to a structured yet student-sensitive approach.

Taylor and Cameron discuss using reflection to address specific challenges and improve student outcomes. Taylor exemplifies how reflection can be used to address and resolve unusual

challenging situations in the classroom. Her reflective practice enabled her to effectively support a student experiencing a panic attack:

I had a student have a panic attack in the class and I responded to it... Then I went home and had reflective practice on what is the most effective way to respond to a panic attack... I reflected on panic attacks that I've had as a child and what was given or not given... What am I going to do next to support that student?

By thoughtfully analyzing her response and drawing on her own history, Taylor evaluated the effectiveness of her actions and also considered how to better support the student moving forward. This deep, empathetic form of reflection underscores its value in navigating emotionally charged situations and fostering a safe, responsive classroom environment.

Cameron's experience in the classroom illustrates the profound impact of reflective practice on problem-solving and student engagement. During an assignment to write about their best body part, the teacher detailed the rubric levels from 1 to 4. One student immediately crumpled his paper in frustration, stating, "I'm not going to get a level 4, so I'm not going to try." This reaction was both shocking and eye-opening for Cameron, who chose to work directly with the disheartened student: "I chose to work with this student. I promised him he could get a level 4 if he worked with me, and, surprisingly, he flourished and got engaged in the task." Reflecting on this incident, Cameron considered how the grading criteria might have been presented differently:

I reflected on how the teacher could have handled the grading criteria differently to avoid triggering the student who crumpled his paper. Reflecting on both my feelings and the student's reactions helps me understand their background and needs better... This

reflection is crucial for knowing my students on a personal level and adapting my teaching to support them effectively.

She emphasizes that reflection allowed her to see the importance of making learning enjoyable and engaging for students. “It is about looking beyond grades and understanding the deeper value of educational experiences.”

Taylor and Cameron’s approach demonstrates a targeted reflection aimed at improving their responses to specific student needs, aligning with Dewey’s (1933) view of reflection as a means of problem-solving in teaching.

Riley's experience highlights the application of reflection as a problem-solving tool in the classroom, specifically in decision-making related to student pairing. As Riley neared the end of an oral communication unit, she reflected on whether to allow students to choose their partners or assign partners herself. This decision posed a dilemma, with pros and cons for each approach. Allowing students to choose partners, especially in a second language class, could make them more comfortable, but pairing students of varying strengths might benefit learning dynamics. Riley observed that some students only spoke when paired with friends during round table practices, leading her to consider different methods:

Considering this, I’ve thought about being more involved as a bouncing board, but that feels less authentic to my goals. This decision is challenging, and I haven’t come to a final answer. I think I will need to try different methods to see what works best. Since I will be assessing them multiple times, I can experiment with different combinations: letting them choose partners, pairing them myself, and even having them partner with me. This way, I can evaluate what works best for their learning and engagement. This

ongoing reflection has been a significant part of my process as I approach the summative assessment portion of this unit.

Rather than seeking a one-size-fits-all solution, Riley embraces flexibility, using reflection to navigate complex classroom dynamics and prioritize student engagement and learning outcomes.

Dylan offers a unique perspective by highlighting the necessity of reflecting on the limits of a teacher's influence as a crucial component of effective problem-solving. He argues that success or failure in teaching is not solely attributable to the teacher's abilities but also to external factors such as student engagement, learning styles, and socioeconomic class. Hence, reflecting on the boundaries of one's influence is crucial for understanding and addressing problems effectively.

A different perspective is introduced by Dylan who thinks that “teachers tend to be quite compassionate. Hence, they often neglect parts of the world they can't influence.” He argues that reflecting on the boundaries of one's influence is crucial for understanding and addressing problems effectively:

The causes outside of your control are just as important to reflect on because otherwise, you can misinform yourself. If you are not looking at the outside influence, then you could easily attribute your successes or failures to something that was totally out of your control.

He further reflects on the emotional challenge of accepting these limitations, stating:

For instance, a substitute teacher can't significantly impact a student with an unstable home life in just one day. Compassionate individuals might internalize this as a personal failure, wondering why they couldn't reach the student. But recognizing that some factors

are beyond your control is crucial. Reflecting on this helps prevent the emotional toll of feeling inadequate when, in reality, the situation was far out of your control.

By recognizing the influence of factors outside of one's control, Dylan demonstrates a comprehensive approach to problem-solving through reflection which helps to make informed decisions for future actions. Dylan's viewpoint is in keeping with Hattie's (2009) meta-analysis identifying various factors affecting student achievement, many of which are outside the teacher's direct influence. Hattie stresses the importance of understanding these external factors, such as home environment and student attitudes, which supports Dylan's argument about the need for teachers to reflect on these influences.

Morgan's experience during a soccer match in a Physical Education class highlights how she views reflection as a problem-solving skill. She shared an incident where, while refereeing a soccer match, a girl goalie was bullied by her teammates after the opposing team scored. Despite demanding apologies from the boys, their insincerity left the girl crying for the rest of the day. Later, the boys accused Morgan of unfair refereeing. Reflecting on the situation, Morgan realized that her people-pleasing nature had affected her judgment:

This was my first time refereeing a soccer match, and it was challenging. Reflecting on this, I realized my people-pleasing personality was affecting my judgment. I wanted everyone to be pleased and didn't want to offend anyone. But I learned that as an educator, trying to please everyone can lead to issues like bullying. I need to stand up for what's right, even if it means some people won't be happy with me. This reflection was important not just for my teaching but for my personal growth as well. It made me understand the impact of my people-pleasing nature and the importance of standing up for those who are being mistreated.

By reflecting on the challenges and dynamics of the situation, Morgan was able to gain insights into her own behavior and its impact on classroom management and student well-being.

Similarly, Adrian highlights the critical role of reflecting on one's feelings during challenging situations as essential for effective problem-solving. He gave an example involving anxiety during a gym class that wasn't going as planned, causing him to feel flustered and panic:

Let's use anxiety as an example. during a gym class that didn't go as planned, my anxiety increased, and I became flustered. At that moment, I was kind of freaking out, but afterward, ... reflecting on that situation helped me understand what went wrong and how to handle it better next time. This reflection is crucial for improving how you manage similar situations in the future.

Adrian emphasizes that real understanding and learning happen after these critical moments when he can process the event and incorporate feedback. He highlights that "when all the emotions are there," they can cloud judgment during the event, making it difficult to learn until reflecting afterward when "the moment is passed."

Daniel Goleman's (1995) work on emotional intelligence underscores the significance of recognizing and understanding one's own emotions and those of others. This awareness is crucial for effective decision-making and problem-solving, aligning with Morgan and Adrian's emphasis on the need to reflect on emotions. Additionally, Zeichner and Liston (1996) discuss the role of reflection in teaching, emphasizing the importance of considering one's emotional responses to classroom events. They argue that reflecting on emotions helps teachers develop a deeper understanding of their practices and improve their problem-solving skills.

The extracts above illustrate how teacher candidates perceive reflection not only as a means for personal development but also as a vital problem-solving skill. While their definitions

of reflection remain predominantly teacher-centric, focusing on self-improvement and instructional strategies, they also recognize the necessity of using reflective practices to deal with the challenging situations they face with their students and respond to student needs. Both themes are complementary, with the first focusing on teacher growth and development, and the second on student engagement and adapting teaching methods to support students.

Reflective thinking, as described by Hatton and Smith (1995) is a special problem-solving method that organizes thoughts sequentially to find solutions. Teachers who engage in reflective thinking are better equipped to connect past, present, and future ideas, question and evaluate themselves and events (Demirci-Ünal et al., 2024; King & Kitchener, 1994; Schon, 1983a), and ultimately foster these skills in their students (Wilson & Jan, 2012). This includes critical thinking, a higher level of reflective thinking, which involves understanding and awareness of our perceptions, feelings, actions, and motivations (Leung & Kember, 2003).

The findings suggest that teacher candidates view reflection as an essential tool for addressing and resolving classroom challenges, such as managing behavioral problems, accommodating special needs, improving engagement strategies, understanding student behavior, and refining classroom management techniques. However, the depth of their problem-solving approaches or stages of reflection remains unclear (Mezirow, 1991, 1997, 1998). Not all reflective practices lead to deep, critical reflection. Some teacher candidates may engage in superficial reflection that does not result in meaningful changes in practice. There is a risk of superficial reflection that focuses on immediate, practical concerns without addressing underlying assumptions or broader educational contexts (Fook & Gardner, 2007).

It is worth noticing here that the level of students' reflective skills can be influenced by teaching methods, the learning environment, and the teacher's own reflective thinking abilities

(Wilson & Jan, 2012). For instance, a study conducted by Aldan-Karademir & Görgün (2019), reported that middle and high school students' reflective thinking abilities were generally inadequate and noted that teachers' reflective capabilities significantly influenced the learning environment and students' reflective growth. This underscores the importance of teacher candidates developing strong reflective skills themselves to effectively support and guide their students.

By developing robust reflective practices, teacher candidates can better address behavioral problems, accommodate special needs, and improve engagement strategies, ultimately leading to more effective teaching and learning environments.

Theme 3: Reflection as Formal vs. Informal Practice

The tension between formal and informal reflection is evident in participants' descriptions of their reflective practices. Teacher candidates in this study generally perceive informal reflection as more authentic and meaningful. They find that spontaneous, self-directed reflections, which allow for deeper personal engagement, offer significant insights. In contrast, they think that the structured and evaluative nature of formal assignments in the teacher education program has led to a diminished sense of authenticity and engagement. Only two participants view both formal and informal reflection as equally beneficial for their professional development as educators.

Taylor differentiates between “real” reflection and the “never-ending oversaturated assignments” required by her professors in the teacher education program:

I take real reflection really seriously. I don't take never-ending oversaturated reflection assignments very seriously ... maybe in the first couple of reflections I wrote, I was putting my heart into it, and really thinking about it. Now at this point, and I know I hear

this from everybody around me too, we get given a reflection, we're all just like, well, okay ... we just write something because we're too tired.

While Taylor initially found the reflections meaningful, the repetitive nature of the assignments has caused her to become disinterested and less invested. Taylor suggests that formal assignments often lack depth and authenticity, reducing meaningful reflection to a task that must be completed for academic purposes. The excerpt also suggests a widespread perception among students that the reflection assignments are excessive and have lost their significance.

Conversely, Taylor highlights her genuine appreciation for informal self-reflection, contrasting with her disengagement from formal reflection assignments:

I think self-reflection is the bread and butter. I enjoy getting to know myself. I enjoy having an inner dialogue with myself. Sometimes when I am feeling especially vulnerable and I am doing self-reflection, I like to have an internal conversation with myself, I do third-person talking so that I can remove myself from myself a little bit and then come back together. I say so, Taylor, how did that go? I enjoy having a relationship with my inner self.

Taylor's practice of conversing with herself in the third person during vulnerable moments exemplifies her deep engagement with self-reflection, allowing her to gain perspective and connect with her inner self. This personal approach to reflection stands in stark contrast to her perception of the repetitive and superficial nature of the assigned reflections in her teacher education program. This suggests that teacher education programs should consider more flexible and personalized approaches to reflective practice, recognizing the importance of intrinsic motivation and providing spaces for genuine, transformative reflection. This resonates with

Boud, Keogh, and Walker's (1985) principles emphasizing the significance of personal meaning in reflective activities.

In the same vein, Riley's self-identified disposition as a "mindfulness person" lays the foundation for her reflective habits. She highlights the procedural aspects of formal reflection, as structured by the program, which disrupts the organic nature of her reflective practice. She articulates this tension, "Sometimes it just feels like busy work," signaling a sense of disengagement and lack of authentic connection with the imposed reflective practices.

Riley provides a nuanced understanding of how program-mandated reflections can be perceived by students who naturally engage in reflection as part of their daily lives, like herself, and other participants in this study. She explains:

Having time to reflect on just how you are doing as a person, like in my life outside of teaching, is something that I already do in my life through practices like meditation and yoga. So, incorporating reflection into my teaching was a stretch. The only difference now is that they are making me write it down, sometimes with a word count.

Riley's critique emphasizes the stark difference between her intrinsic, informal reflection and the extrinsic, formal reflection required by the program. She elaborates, "I think it is hard to differentiate between what teachers college has provided and what is naturally within my personality."

Taylor and Riley's observations point to a commodification of reflection, transforming it from a meaningful, introspective activity into a quantifiable task. The formal parameters, including the need to meet specific word counts, contribute to a sense of artificiality and, potentially, superficial engagement. As Moon (2013) argues, overly prescriptive reflective tasks can undermine the depth and authenticity of reflection, leading to superficial outcomes.

In like manner, Dylan speaks to the everyday, fluid nature of reflection in contrast to the formal required reflection. He states:

Anybody who drives home from work and thinks about their day is reflecting... it doesn't have to be written down ... I think that [truly deep reflection] has to come from a personal interest. I don't think that a program can really foster that in you unless it was already somewhat present.

This sentiment is consistent with findings by Ward and McCotter (2004), who observed that rigid structures could sometimes impede genuine reflective practice.

Alex and Adrian emphasize the value of spontaneous, dialogue-based reflection over structured assignments. Alex highlights the importance of peer discussions as a reflective practice. She describes how informal conversations with classmates before class helped her reflect on and improve her teaching strategies: "We do not have specific sessions, but we all come to the classroom earlier... and we are just talking about how our practicum went and coming up with different solutions."

Alex's experience with her Associate Teacher (AT) also reflects this preference for informal, conversational feedback. Notably, Alex preferred verbal reflections with her Associate Teacher (AT) over written ones, finding them more impactful and motivational:

Talking reflection is more powerful than written reflection because when you're talking to a person who has more experience than you... it makes it better because they're really trying to push you to be a better version of yourself.

While Alex engaged with both formal and informal reflective practices, her preference and perceived benefits lean heavily towards informal, conversational reflections. This informal peer

reflection resonates with Boud et al. (1985) view that reflection is most effective in a social context where individuals can share experiences and collaboratively construct meaning.

Adrian echoes Alex's perception. His insights highlight the distinctions between formal, structured reflections mandated by his teacher education program and the more personal, spontaneous reflections he engages in. He feels more comfortable and authentic when reflecting verbally rather than in writing. He notes:

In a conversation about my honest thoughts and opinions, I think that flows a lot easier for me. It is a more authentic connection and reflection. I could cover multiple topics in a few-minutes conversation. Whereas if I am writing something, I worry about whether it came out the way I wanted it to. I would spend 2 to 3 hours making sure that a written reflection is correct. This concern takes away from the actual content.

This preference aligns with the work of Brookfield (1995), who highlights the importance of dialogue in reflective practice. Additionally, he believes that the pressure to produce positive reflections for grades can compromise their authenticity. He explains, “a lot of the reflections that you are going to get are positive. And if they [teacher candidates] are not feeling positive about the program ... they just write them positively to submit something and get the mark.” This indicates that teacher candidates may produce inauthentic reflections to secure good grades, undermining the genuine purpose of reflective practice.

Morgan, Cameron, and Jordan share a unique alignment in their views. Unlike the majority of other participants, who tend to favor informal reflection exclusively, these three participants recognize the value of integrating both formal and informal reflective practices in their teacher education experience. Morgan underscores the nuanced interplay between formal and informal reflective practices within her teacher education experience. She gives an initial

indication of her engagement with reflection through the structure of her teacher education program. She explains, “I think I learned about being self-reflective.” This underlines the importance placed by the program on reflective practices. She highlights the practicality of formal reflections in helping her retain important insights and lessons learned during her practicum:

I used to have a very strong memory in the past, but not anymore ... So, I realize that if I do not jot it down, six months from now, I am not going to remember it. So, the self-reflection kind of really helps me in that manner as well.

This underscores the role of formal reflective assignments in documenting and reinforcing Morgan’s learning process. Furthermore, unlike Adrian and Riley, Morgan does not express disinterest in the predetermined word count reflections. She further describes her experience with these reflections, noting their personal and introspective nature: “It was interesting for me...they are asking for a 300-word, one-page self-reflection on your own past, your own ideas about teaching, your own ideas about learning.” Morgan’s appreciation of formal self-reflection highlights how integral these practices are to her development as a teacher.

Cameron perceives both structured assignments and personal, flexible reflection methods as impactful on her development as an educator. Initially, she felt overwhelmed by the abundance of required reflections, viewing them primarily as tasks to complete for a grade. she states, “I thought it was so dumb when I first started the program. Many of the modules were all about reflecting on a time you did this, and I am like, Oh, my God! Another reflection!” This sentiment highlights a common perception shared by most participants in this study that formal reflection can often feel burdensome and disconnected from personal engagement. However, as

However, Cameron continued to engage with these assignments, her perception began to shift. She describes a turning point in her understanding:

As I did them more, you can see the progress of my reflections...they became so much more genuine over time. And they just felt so much easier to do, not because there was a specific format...they weren't even marked...it was just completion. I think it was very valuable for me and a few of my classmates.

This highlights her evolving appreciation for formal reflections as she recognized their role in her development.

Nonetheless, Cameron proposes that informal reflections allow for individualized approaches, recognizing that not all students benefit or engage in the same way with structured reflections. This informal approach fosters creativity and personal expression, allowing students to engage in a manner that feels natural and meaningful to them. She suggests that it can take many forms beyond written assignments, "I don't think there should be a specific way to write reflections ... allowing students to do things differently and not have such specific criteria, gives them ... that space to get creative and run wild with it." This approach allows for a more personalized and meaningful engagement with reflective practice.

Likewise, Jordan views formal reflection practices as a vital part of her teacher education program:

So, it is about applying what we learn at school. The professor doesn't see us, but we know it. We see [learn] something in class [Teacher Education] and then bring it into the classroom with our Associate Teacher's permission. It's in our hands, but if I don't bring it into the classroom, it stays theoretical ... we need to continue applying in the classroom

because I want to see the results ... Sometimes at my placement, when I apply something, we have conversations about whether I should have done it differently.

In this excerpt, Jordan expresses her appreciation for reflection in the teacher education program by highlighting the autonomy and responsibility it fosters in applying learned concepts to real classroom settings.

In contrast, to Jordan, informal reflections offer a dynamic, real-time approach to adapting teaching strategies based on immediate classroom needs. She explains:

Teaching is always a trial because what works with one group of students might not work with another. As a teacher, you develop an instinct to know when the students have understood the material. You can see their feedback—they stay engaged and on task, and they are not bored or talking to others. From my observations, I can tell if a strategy is effective. This is a good approach that I can apply. However, each classroom is different, ... and I need to adapt my teaching methods or apply what I have learned in school to meet their needs.

Jordan's approach to reflection as a continuous process of trial and error, informed by both formal learning and instinctive adjustments, underscores the dynamic interplay between these two forms of reflection. This integration allows her to be both prepared and flexible, enhancing her effectiveness as a teacher. Her ability to integrate both types of reflection illustrates a holistic approach to reflective practice, contributing to her development as a reflective practitioner.

On the whole, teacher candidates' narratives underscore the critical distinction between formal and informal reflective practices. While they engage with both types of reflection, their preference and perceived benefits lean heavily toward informal, conversational reflections. This preference for informal, conversational reflection is consistent with the findings of Ward and

McCotter (2004), who emphasize the benefits of dialogic reflection in professional development contexts.

For formal reflections, teacher candidates often feel pressured to produce positive reflections, regardless of their true experiences or feelings. This pressure stems from the desire to secure good grades rather than engage in genuine reflective practice. The structured nature of these reflections, tied to academic assessment, can lead to inauthentic responses. Teacher candidates might mask their genuine concerns or negative experiences, opting instead to write superficially positive reflections to meet perceived expectations and achieve satisfactory marks. This practice undermines the true purpose of reflective practice, which is to foster honest self-assessment and growth.

The program's structured approach might inadvertently compartmentalize reflection. Zeichner and Liston (1996) caution against such compartmentalization, suggesting it disconnects reflective practice from its broader context and reduces its effectiveness. This segmentation likely diminishes the perceived value of these reflections, reducing them to tasks to be completed rather than opportunities for genuine personal and professional growth.

This collective perspective suggests a broader issue within the program's design. The need for a more supportive and less judgmental approach to reflection in teacher education programs is evident. Such an approach would encourage genuine, critical self-reflection without fear of academic penalty. Van Manen (1977) highlights the importance of fostering reflective practices that resonate deeply with individuals' lived experiences and professional contexts for meaningful engagement. Therefore, there is a need for a balanced approach that honors and integrates students' natural reflective tendencies while still providing the necessary structure for academic development.

Enacting Reflexive Practices in the ITE Program

My second research question examines how teacher candidates in an Ontario ITE program engage in reflexive praxis throughout their teacher education experience. To address this question, I present the findings organized around the emergent themes that reveal how teacher candidates engage in reflexive practices. In exploring these practices, it was necessary to consider the contextual factors and dynamics within the ITE program that influence how teacher candidates engage with reflection. Through this exploration, four key themes emerged, each illustrating different aspects of how teacher candidates integrate reflection into their professional development and classroom practice. These themes offer a nuanced understanding of the varied ways teacher candidates navigate and implement reflexive practices, highlighting both the challenges and strategies they employ within their ITE program. These themes are:

4. Reflection in, on, and for Action
5. Interactions with Professors
6. Interactions with Associate Teachers (ATs)
7. Barriers to Reflections

In all these themes, the underlying social processes involve the continuous negotiation of identity, professional standards, and evolving perspectives. Social life in teacher education is inherently dynamic, with teacher candidates continually constructing and reconstructing their professional identities in response to interactions with mentors, peers, and institutional expectations. This process of identity formation is not a static event but an ongoing evolution, deeply influenced by reflective practices that enable teacher candidates to critically engage with their experiences. Research underscores the importance of reflection in shaping teacher identity,

highlighting how interactions within educational contexts contribute to the development of self-perception and professional values (Beauchamp & Thomas, 2009; Kelchtermans, 2009).

The negotiation of professional standards is another crucial aspect, as teacher candidates must align their reflective practices with both personal and institutional expectations, a process that often involves adapting to new and sometimes conflicting norms (Zeichner & Liston, 2013). This is especially challenging in the context of teacher education, where reflective writing must meet academic standards while also serving as a tool for professional growth. The constant adaptation required in this negotiation underscores the importance of flexibility and responsiveness in reflective practices (Loughran, 2002).

Furthermore, the development of reflective practices is closely tied to the ongoing acquisition of new perspectives. Teacher candidates are continually exposed to diverse ideas and approaches through interactions with professors, associate teachers, and peers, which challenge and expand their existing viewpoints (Brookfield, 2017). This exposure plays a pivotal role in deepening their reflective practices, fostering a more nuanced understanding of their roles as educators, and enhancing their ability to adapt to the dynamic demands of teaching.

It is important to note that the interconnectedness of identity, professional standards, and perspectives highlights the dynamic interplay between individual reflection and the broader social and institutional contexts in which teacher candidates operate (Dewey, 1933; Schön, 1983). This complexity will be discussed in depth in Chapter 6, where I will explore how these overlapping processes influence the reflective practices of teacher candidates and contribute to their professional development and classroom practice.

Theme 4: Reflection in, on, and for Action

For teacher candidates, reflection serves as a critical tool for analyzing their teaching experiences, enhancing their instructional strategies, and ultimately improving student outcomes. One of the themes that emerged from the interview data is one that explores the diverse ways in which teacher candidates engage in reflection—during their teaching (reflection-in-action), after their teaching (reflection-on-action), and in planning for future lessons (reflection-for-action). By examining these reflective practices, we can gain insights into the complexities and nuances of how teacher candidates interpret, negotiate, and redefine their teaching methods to better meet the needs of their students.

All teacher candidates consider themselves naturally reflective. However, they vary in how they engage in reflective practices during their practicum. Teacher candidates' process of reflection can be described using the framework proposed by Donald Schön, which distinguishes between three types of reflection: reflection-in-action, reflection-on-action, and reflection-for-action.

Taylor considers herself naturally reflective and constantly engages in reflective practices. She states, "My brain can think about twenty things at once, so there's always at least one stream dedicated to reflecting." Taylor's reflective process appears to be very personal and unstructured. As she describes, "I'll just do like a stream of consciousness, like word barf, write it all out and then, sit on it for maybe a week and then reread it and see if it still resonates." This suggests a more free-flowing, introspective approach to reflection, without a clear structure or specific goals in mind.

Additionally, Taylor describes her reflection during a lesson as a dynamic and responsive process. Her approach highlights her ability to remain flexible and responsive to the needs of her students, adapting her methods in real-time based on the classroom dynamics:

I look around and catch the flow of the room, seeing if I can adjust. I am someone who comes up with a lesson plan, but nine times out of ten, I don't follow it strictly. The lesson plan is just the starting point. I follow the energy in the room, assessing if what I am doing is working. If it is not, I adapt on the spot. The best lessons and interactions I have had with students often come from starting with a plan but then feeling the energy shift and going with it instead of trying to force the original plan.

Alex highlights a key shift in her approach to reflection, moving from a post-lesson reflective practice (reflection on-action) during her practicum to a more dynamic, in-the-moment reflection during actual teaching (reflection in-action). During the practicum, the presence of a supervising teacher who provided continuous feedback created a structure where reflection occurred after the lesson. She explains:

During my practicum, I used to reflect after the lesson because I had an AT with me who would ... encourage me to keep going if I stopped. She would ask what my next plan was, which made me feel like I had less authority.

Alex felt a sense of lower authority, indicating that the supervision, while supportive, also imposed a certain level of constraint on her ability to make immediate adjustments based on her observations. She illustrates the shift from post-lesson reflection to in-the-moment reflection:

Now that I have graduated, I reflect during the lesson itself... If I see the students are not motivated, I try to make the lesson more engaging, like switching subjects if needed. For

example, if art is scheduled for the last period, I might move it to the first period and do language afterward. As a supply teacher, I have the flexibility to do that.

This highlights her development as an educator who is now capable of making swift decisions to enhance the learning experience. This change underscores a growing confidence and autonomy in her teaching methods. This dynamic form of reflection aligns with the principles of reflective practice, which advocate for continuous, real-time assessment and adjustment to meet the immediate needs of students.

Morgan's approach to reflection is multifaceted, occurring at different times—end of the day, during prep time, and on weekends. She states:

If I'm in practicum, I reflect at the end of the day. I do a log and write it down because my mind works better that way. When I jot things down, it helps organize my thinking. If I have prep time in the middle of the day, I would also do that. Sometimes I reflect on the weekend.

Apparently, Morgan's approach to reflection is notably structured, involving detailed logs and notes, which stands in contrast to Taylor's unstructured, free-flowing method. She describes how she reflects in action, “sometimes I reflect softly during class. For instance ... whenever I'm teaching about something, I jot down notes about my own teaching style ... and things I would want to change.” However, Morgan remarks:

I'm not reflecting deeply while I am teaching. It might occur, but not that often. And I think that is because I'm a new educator. I think the more experience you get, you can reflect simultaneously while teaching. But I am not at that point yet. I have to manage the class. My self-reflection usually comes afterward. I think the more comfortable I get with teaching, the more I will start reflecting during teaching.

Unlike Alex, who has transitioned from post-lesson reflection during her practicum to in-the-moment reflection, demonstrating her growing confidence and autonomy, Morgan acknowledges she is still in the early stages of her teaching career and finds it challenging to reflect effectively during teaching. This contrast highlights the varied stages and approaches in developing reflective practices among teacher candidates. She attributes this to her newness to the profession, indicating that her primary focus during teaching is classroom management and lesson execution. This highlights the developmental nature of reflective practice, suggesting that as educators become more comfortable and skilled, they can integrate reflection more fluidly into their teaching. This aligns with Korthagen and Vasalos (2005) and Larrivee (2008), who highlight different levels of reflection, suggesting that deeper levels of reflection evolve with experience and increased confidence. Larrivee (2008) specifically emphasizes that teachers' ability to engage in reflection deepens as they progress in their careers. Day (1997) further underscores the lifelong nature of teacher development and the critical role of reflection in professional growth.

In like manner, Jordan's reflective practice involves both in-the-moment adjustments (reflection in-action) as well as post-lesson note-taking (reflection on action) and planning for the future (reflection for action). However, the key difference lies in the timing and immediacy of their reflective practices. Jordan's ability to reflect in action suggests a level of confidence and experience that allows her to make quick adjustments, whereas Morgan is still developing this skill and relies more on after-the-fact reflection to inform her future teaching strategies. Jordan points out:

I always have a plan, but it is never 100% set. Midway through the lesson, I might notice the children are not interested or they start acting a little silly. That's when I change my

plan to suit what the children need at that moment. I read the room, and if I sense the energy is not right, I change the subject or activity accordingly. During teaching, I adjust based on the children's responses to ensure a smoother, more effective lesson.

Jordan shows how reflecting on her and her AT's actions improved her gym class management. Her AT repeated instructions and set clear expectations, ensuring students understood. Jordan notes, "These reflections are important for me because they help me see the value in confirming students' understanding and setting clear expectations." This highlights the importance of repeated instructions and active student engagement.

Riley, Cameron, and Adrian echo the same sentiment. Riley's reflections are not merely retrospective; they are influential in shaping future teaching practices. She states:

It is an ongoing process. You do not just reflect after teaching; it is before, during, and after. When you are coming up with a lesson, you reflect on what you want students to learn, why you are choosing certain methods, and what the goals are. If you are not engaging in this process, then you are not really teaching; you are just saying stuff.

She emphasizes that reflection is not a separate, occasional activity but a fundamental aspect of teaching practice. She also highlights that effective teaching involves constant self-assessment and adaptation:

During the lesson, you have to reflect quickly because you are constantly receiving feedback from the students and need to react and make decisions based on that.

Afterward, especially as a new teacher, you are always trying new things and reflecting on what worked and what didn't.

Rather than viewing it as a discrete task, Riley integrates reflection into both in-the-moment instructional decisions and post-lesson evaluations. Her insight highlights how ongoing self-

assessment is essential for adapting to students' needs and refining one's teaching approach, especially in the early stages of a teaching career.

In a similar fashion, Cameron's reflection process is a blend of real-time adaptability, critical post-lesson analysis, and proactive planning for future lessons. The description of in-the-moment reflection while teaching underscores her responsiveness to student feedback and willingness to adjust strategies on the fly: "During the lesson, a lot of reflection happens as I observe students' engagement and interest. Then, there's the reflection that occurs afterward." After a lesson, Cameron engages in reflection-on-action by critically analyzing what worked and what didn't. She points out, "I reflect on how I could modify it. How can I change it? Why isn't this working? What can I do to make it work for certain students? How can I differentiate this?... I evaluate what I accomplished."

This reflective practice involves questioning and seeking ways to improve lesson plans and instructional strategies. Cameron's reflections are not limited to immediate past events; they extend into planning for future teaching scenarios:

In the context of teaching, I think some reflection happens beforehand. For instance, when I make lesson plans, I like to reflect a little to prepare myself for different outcomes ... Like, if something were to go wrong, what can I do to keep the lesson or class going and keep the students engaged? For example, if I play a video and realize the students are not interested in it, I need a backup plan to be better prepared.

By recalling previous experiences and applying lessons learned, Cameron tailors future instructional strategies to meet diverse student needs. This forward-thinking approach highlights the importance of using past reflections to inform and improve future teaching practices.

Likewise, Adrian describes his reflective practice during the lesson:

I reflect quickly during teaching, allowing me to adjust my lessons on the spot based on the students' personalities and their understanding of the material. My lesson plans are rough drafts that I specialize in the moment because no one knows what will happen until it actually occurs. This immediate reflection is crucial as it influences the students' first impression of the information.

Adrian reflects also after the lesson. He notes, "After the lesson, I also reflect by asking myself, 'How did that go? Did they understand it? What could I have done better?'" So, I reflect both during and after my lessons."

Adrian explains his mindset as valuing respect, nurturing, and love for all students while recognizing that each student needs different things to be successful:

I am always thinking about how to improve myself and my students, making their lives easier and more efficient. So, I am constantly thinking about my thinking. Sometimes it can be overwhelming, and I want to slow it down, but it's a part of who I am.

Adrian's reflection shows how deeply he connects personal growth with supporting students. His constant self-questioning, though at times overwhelming, reflects a strong commitment to thoughtful, student-centered teaching.

While all the other teacher candidates describe their reflective practice as a more structured conscious act of thought, Dylan asserts that it is a natural, intrinsic process that is most effective when it occurs unconsciously, rather than as a deliberate or forced activity:

By trying to trigger reflection, you are inevitably influencing it. It's no longer just a reflection; it's becoming a forced or prompted action that you are consciously doing. You're thinking, 'I am going to sit and reflect,' or 'Oh, I'm reflecting,' and that kind of ruins the natural aspect of reflection.

He recalls a grade two science lesson where they ended up making a big mess:

I reflected on it and thought, 'Yeah, for a grade two to make a mess, what's the big deal?'

We cleaned it up, and even the custodian was laughing and enjoyed the process. So, I guess I reflected on it and initially thought it wasn't a good idea, but then realized that letting kids make a mess once in a while isn't bad. I don't know that I would have noticed I was reflecting on that.

Dylan's reflection process is spontaneous and integrated into his teaching, occurring without consciously labeling it as reflection. He questions the appropriateness of an activity and reevaluates it based on students' enjoyment and learning. His meta-cognitive moment—recognizing that he was reflecting unconsciously—highlights a deeper self-awareness and the organic, often unstructured nature of reflection in teaching.

This view aligns with existing literature. Eraut (1995) differentiated between “deliberate reflection” and “implicit reflection,” with the latter occurring naturally and unconsciously as part of professional practice. Boud et al. (1985) discussed how reflection is often an intuitive process that integrates thoughts and feelings, emphasizing its natural, unforced aspect. Similarly, Moon (2013) acknowledged that while structured reflection is important, much of our reflective practice is informal and happens unconsciously as we engage with our work.

All teacher candidates engage in reflection, both during and after their teaching activities. This indicates a shared understanding of the importance of reflection in enhancing their teaching practices. Teacher candidates' real-time adaptation is crucial for responsive teaching, as emphasized by Rodgers (2002), who underscores the need for teachers to be attuned to students' immediate needs and reactions. It aligns with Schon's (1983) concept of reflection-in-action, where teachers adjust their strategies based on ongoing reflection and feedback. This approach

highlights Teacher candidates' commitment to continuous improvement and responsiveness to classroom dynamics. However, the fact that some Teacher candidates are still in the early stages of developing these skills suggests a need for more structured support and guidance in cultivating deeper reflective practices (Larrivee, 2008; Korthagen & Vasalos, 2005).

Theme 5: Interactions with Professors

The theme of 'Interaction with Professors' is crucial in understanding how teacher candidates enact reflexive praxes. Professors play a significant role in shaping teacher candidates' reflective practices by providing guidance, feedback, and modeling reflective behavior. This support helps teacher candidates develop the skills needed for effective self-assessment and continuous improvement (see among others, Brookfield, 2017; Loughran, 2002; Zeichner & Liston, 2013). This theme explores how professor support influences teacher candidates' ability to reflect critically on their teaching experiences. The level and type of support each teacher candidates' experiences varies, impacting their development of reflective practices.

Alex discusses several interactions with her professors that highlight the support and feedback she received during her teacher education program. She recalls an incident when she was overwhelmed with her practicum issues and needed the support of her practicum professor:

When I told my professor about the issues I was facing ... he suggested coming to observe my teaching. He emphasized the need for an honest conversation, regardless of whether the observation went well or poorly. He came to the school, observed my teaching, and wrote a very positive report, praising my performance in both subjects. Through this interaction, I not only received valuable guidance but also built a network with my classmates and colleagues ... and formed a support group.

Alex's professor showed significant support by visiting and observing her teaching. This direct observation allowed for targeted feedback, which Alex found valuable and affirming. The professor's visit resulted in a positive report, highlighting her strengths and helping her navigate practicum challenges. This personalized support reassured her about her teaching capabilities, alleviated stress, and emphasized the importance of open communication and adaptability in teaching.

Regarding reflective practice, Alex emphasizes the importance of targeted feedback from professors in the ITE program to enhance the reflective process, stating:

I feel like student teachers already know how to write reflections, but professors should definitely provide more accurate feedback. When asking for reflections, professors should specify important points to focus on rather than just asking for a general reflection about the practicum. This way, we can reflect on specific aspects and then receive precise feedback on those points.

This excerpt highlights a critical aspect of the reflection process in teacher education. By emphasizing the importance of clear instructions and focused reflection points, Alex suggests that this approach would enhance the quality and effectiveness of reflective practices for student teachers. The call for accurate feedback underscores the value of constructive criticism in professional development and continuous improvement.

Alex and Jordan both emphasize the value of targeted feedback, yet Jordan notes the need for more frequent feedback to optimize her reflective practice. She submits the reflections she writes after each lesson to her professor, demonstrating her commitment to continuous improvement. She notes, "After I teach, I always include a reflection part in my lesson plan. I do this after each lesson. We also have to submit these reflections to our professors at the

university.” However, the limited frequency of feedback from professors suggests a potential area for enhancing support. Jordan explains, “They follow up on our shared folder, not every week, but they check them when it is time. They provide feedback mostly during their visits to observe our teaching. The professors give feedback twice a year.” The feedback from professors, though valuable, is infrequent. Although they do not review these reflections weekly, they provide feedback during scheduled times and classroom observations. Increasing the frequency and depth of feedback from professors could enhance the support system for student teachers, offering more opportunities for detailed guidance and professional growth.

Dylan and Taylor express clear skepticism about the effectiveness of their teacher education program in enhancing his reflective capacity. Dylan states, “I do not think that the program has significantly influenced my ability to be reflective. It definitely has not made it worse either.” This indicates a perceived gap between the program's objectives and its impact on his development as a reflective practitioner.

He elaborates on the classroom interactions with practicum professors: “someone in the class might say, 'oh, in my class, my AT does this,' and the professors would go, 'Oh, that's great! Does anyone else's AT do that?' And that was kind of the style.” This style encourages peer learning and the exchange of best practices among teacher candidates. However, it also suggests that the depth of guidance from professors may vary, relying heavily on student contributions and potentially lacking structured, comprehensive feedback from the professors themselves. Dylan notes a shift from structured, topic-focused discussions in the first year of the program to more open-ended, professor-led discussions in the second year. He observes, “last year was much more like, 'Okay, these are kind of hard-lined questions. We have answers, and we have suggestions. And here is what we think we should do.’ “This year,” he continues, “it has been

much more philosophical (open-ended) ... sometimes it is a little bit not everyone gets a chance to talk.” The shift to more open-ended discussions, while beneficial for deep dives into complex issues, can sometimes limit individual participation due to class size, suggesting a need for strategies to ensure all voices are heard.

Additionally, professors ask teacher candidates to write reflections in response to specific prompts mainly to get a mark. Dylan expresses frustration with the academic emphasis on articles, theories, and formalized processes in reflections, which he feels detracts from the personal and introspective nature of genuine reflection. He notes:

Focusing on writing papers, publishing, and broad theories, it felt like it was not really getting me anywhere. I wonder if trying to put academic thought and process into reflection takes away from its essence. It seems detrimental. Maybe academics don't mean to put these pressures or include academic terms into reflection. Perhaps they are trying to help teachers reconnect with themselves.

His comments reveal a perceived disconnect between the program's efforts and its tangible impact on developing reflective teachers. He states, “As you get further and further into academics around education, you get further and further removed from the classroom.”

Dylan suggests that “instead of making teachers reflect, and respond to prompts for grades, they could teach us more about the benefits of reflection.” This implies that he believes a deeper understanding of the value and impact of reflection might encourage more genuine and consistent reflective practices among student teachers.

Similarly, Taylor expresses profound disappointment with the support she has received from her professors, highlighting a decline in the quality of her reflective practice since enrolling in Teachers College:

I am really quite disappointed with the lack of support. In some ways, I think Teachers College is damaging my reflective practice. My reflective practice was stronger before and outside of Teachers College. Now, it is kind of making reflective practice seem trivial and exhausting instead of really activating change.

Taylor's reflection points to the unintended consequences institutional structures can have on authentic reflection. Her sense of disillusionment highlights how mandated or superficial approaches may undermine meaningful reflective practice, turning it into a task rather than a transformative process.

Interestingly, Taylor underscores the importance of professors being reflective themselves to better support their students' reflective practices. She points out, "A lot of the professors themselves are stubbornly non-reflective of themselves, so supporting other people in their reflective practice might begin with themselves. There are a lot of professors in the program who have gone very stale." She highlights a disparity between professors who actively engage in and promote reflective practices and those who have become stagnant and do not practice what they preach. Moreover, Taylor identifies a systemic issue within the program: the lack of cohesion among the professorship. She praises some exceptional professors but contrasts them with others who fail to implement the reflective practices they advocate. She states, "The program does not have a cohesive professorship. There are incredible professors way above the other professors, and you have other professors doing the same thing that they have always done, and they do not practice what they preach." This inconsistency, according to Taylor, leads to a hypocritical learning environment.

Unfortunately, Taylor's experience with her professor's feedback was negative. She recalls:

In my first year, I did some of my real reflections ... but then my professor would comment on the reflection and say something that made me just go, 'Yeah, I don't like that you read that now.' So now I have stopped being my real self when it comes to teacher's college reflections and just type whatever and send it in."

The comments made by the professor felt intrusive and discouraging, leading her to feel uncomfortable sharing her genuine thoughts and feelings. She explains that the professor's remarks made her regret being open and honest in her reflections, which undermined the reflective process's authenticity. This experience had a lasting impact on Taylor, causing her to become more guarded and superficial in her formal reflections.

As a result, Taylor now completes reflection assignments with minimal effort, focusing only on meeting the requirements rather than engaging in meaningful self-exploration. This shift highlights a significant issue in the teacher education program's approach to reflective practices. When feedback is not supportive or constructive, it can hinder the development of genuine reflective skills and discourage teacher candidates from engaging deeply with their experiences.

Conversely, Morgan believes that professors play a significant role in promoting reflective practices by assigning logs and providing structured reflection activities. Regular interactions with professors help maintain a continuous reflective practice. She notes, "We would meet up every second week with the practicum professors." Professors are actively involved in guiding students through reflection logs and facilitating collaborative reflection activities.

Morgan describes:

We would get into groups, and then our professor would give us a card, a question like, 'How did that go in your class?' We would collaborate, talk about it, do think-pair-share, do it in a group, do it on a chart, do it on a board. Additionally, professors observe

students during their practicum and offer feedback and positive reinforcement. Morgan highlights, "The professor comes and observes us once during the year...he gave positive feedback.

Although not frequent, professors provide feedback on reflection assignments, which helps students improve their reflective practices. Morgan mentions, "Professors would give a paragraph of feedback on those...and they would give us readings on self-reflection."

Interestingly, echoing other Teacher candidates' sentiments, Morgan underscores the importance of understanding not only how to reflect but also when and how to connect reflective insights with broader knowledge. She highlights:

There is a saying that success comes from how well you can connect your knowledge. It is important not just to know how to self-reflect, but to understand when and how to do it effectively. For example, I do a lot of reflections, but I often wonder how often I should revisit them, and whether I will remember everything. Understanding the process of reflection, including when to review and how to apply it, is crucial.

Morgan's reflection emphasizes that effective reflection goes beyond self-awareness—it requires intentionality and strategic timing. Her insight points to the need for structured opportunities to revisit and apply reflections, reinforcing the idea that reflection is a skill that develops through guided practice and meaningful integration with broader learning. Overall, Morgan's insights suggest that fostering effective reflective practices in teacher education requires a balance of professors' guidance, flexibility, and ongoing support.

Riley's experience with professors varied over the years. She expresses a view similar to Dylan's:

My practicum professors this year are better than last year's. Last year felt like they had all the knowledge and we should just listen. I don't think this was their intention, but it felt out of touch, especially post-Covid. This year, it feels more like teamwork. They act as facilitators rather than dictators of information, making the experience more organic and beneficial. They even consulted experts for some sessions, which shows they are listening to us and making the experience better.

Here, Riley highlights the impact of the faculty approach on the quality of reflective learning. Her comparison shows how a shift from a top-down model to a more collaborative, facilitative stance fosters deeper engagement and a stronger sense of connection.

Additionally, Riley indicates that while professors asked for reflections, they didn't teach how to reflect, which left some students unsure about the process. She remarks, "Last year, there was a lot of confusion about expectations. Do they want us to write every day? Do they read this stuff? Clear guidelines at the beginning, especially when starting something new, would be helpful." This reveals a gap between expectation and instruction regarding reflective practice. Without clear guidance, students may struggle to understand the purpose or value of reflection, leading to confusion and disengagement.

Riley highlights a critical issue in the practicum experience, expressing frustration over the lack of feedback from practicum professors, which hinders the effectiveness of reflective practice. She explains, "We don't receive feedback. We have a practicum notebook that our practicum teachers have access to, but I don't know if they look at it. I did not get feedback last year." Riley's insights suggest that while reflective practices are crucial, the approach to teaching them needs to be more structured and supportive to address the varied needs and backgrounds of student teachers.

In parallel, Cameron observes the same lack of guidance from professors on reflective practice. She shares her experience with practicum professors asking for reflection assignments, I would ask, ‘Okay, but how long does it have to be? What kind of criteria do you need?’ They would always say, ‘Just reflect on it. Let it come out. Reflect however you feel, whatever you want to say. Don’t think of it as too formal.’

This comment reinforces the uncertainty students face when expectations around reflection are vague. While openness can encourage personal expression, the lack of structure may hinder students from developing deeper, more purposeful reflective habits.

However, in contrast to Riley, Cameron perceives this positively. She appreciates the freedom to reflect in her own way, finding it less intimidating and more conducive to genuine reflection. “Even though this bothered me in the beginning, that made it less scary, less like an assignment that needed to be done. I feel like the professor really brought that out in me. It was so casual.” Cameron appreciates how multiple professors approached reflection assignments, “Nobody really taught me how to do it, but they gave me the space and the freedom to do it how I needed to... to get creative and run wild with it.” This excerpt shows that flexibility can support authentic engagement. While initially uncertain, she grew to value the freedom to reflect in her own way, finding it less intimidating and more meaningful.

Adrian's interview reveals a mixed perception of the support he receives from professors in his teacher education program. Adrian feels that the program lacks effective instruction on how to engage in reflective practice. He mentions:

I don't think that anyone actually taught us how to reflect. I think they tried to gear us towards understanding what a good reflection might be, but not exactly how to do it.

They used a lot of quotes and guiding reflections to show us what a teacher in today's modern age should look like.

While professors provide prompts and quotes, they do not adequately teach students how to reflect meaningfully. This shortcoming hinders students from fully benefiting from reflective practices and integrating them into their teaching.

On the one hand, Adrian appreciates the personalized guidance provided by some professors, especially those who helped him explore career pathways beyond the classroom:

For the practicum courses, my first year was very impactful on me, because I had a really good connection with the professors. They helped me grow as a person. One professor even helped me explore the pathways beyond being a classroom teacher.

On the other hand, he expresses dissatisfaction with certain courses:

I don't really feel like I have learned as much this year. And it is challenging because I want to learn, I want to grow as a teacher. I want to be the best teacher I can possibly be for the students and for myself. But if I don't have professors who are truly invested in my best interest, what is the point, you know?

He perceives some professors as not fully invested in their students' growth and development, which demotivates him and diminishes the value he gets from the program.

Collectively, teacher candidates highlight a perceived disconnect between the program's structured approach to reflection and its effectiveness in fostering genuine reflective practice. They suggest that more targeted, practical approaches and continuous support from professors could bridge this gap and enhance the program's effectiveness in developing reflective practitioners. The literature supports this view, with Korthagen and Vasalos (2005) emphasizing the importance of structured guidance in supporting the development of reflective skills in

teacher candidates. Their work underscores the role of mentors and educators in providing the scaffolding necessary for effective reflection. Additionally, Hatton and Smith (1995), Moon (2013), and Zeichner and Liston (1996) highlight the importance of balancing structure with flexibility in reflective practices. Implementing these elements can better support teacher candidates in developing meaningful and effective reflective practices.

Theme 6: Interactions with Associate Teachers (ATs)

The role of Associate Teachers (ATs) in fostering reflective practices among teacher candidates in this study is characterized by a diverse range of experiences. While some participants report receiving actionable feedback, empathetic mentorship, and opportunities for collaborative reflection, others encounter challenges, including inconsistent guidance, limited availability of ATs, and a lack of inclusive representation. These mixed experiences highlight the critical and nuanced influence ATs have on shaping teacher candidates' reflective development and professional identity. This theme examines the varied mentorship styles and their implications for the reflective growth of teacher candidates, exploring both the positive and negative dimensions of their interactions.

Riley and Dylan both underscore the value of collaborative and dialogic reflection with their ATs. For Riley, her insights reveal a positive and collaborative relationship with her ATs, who played a crucial role in fostering her reflective growth and professional development. Riley emphasizes the value of her ATs in giving her the space to experiment and discover her teaching identity. She mentions:

I've been very fortunate to have ATs that allow me to explore myself, and what teaching means to me. I don't have my fully-fledged teaching style yet... I've been very lucky to have ATs that really support me in that and allow me to learn by doing.

This open and supportive environment encouraged Riley to embrace trial and error as a natural part of her professional journey, recognizing that not all lessons would go as planned. She explains how this iterative process helped her reflect and improve: “Sometimes lessons may not go as well as I thought they would, but then I have those conversations, or I write reflections, and I figure out, okay, that’s why it didn’t work. What could I do differently next time?”

A significant strength of Riley’s mentorship experience was the collaborative dynamic she shared with her ATs. She describes their relationship as one of mutual respect and partnership:

We were very much a team, and we treated each other like a bouncing board. It would start with, ‘Okay, that didn’t go too great,’ and then, ‘Why do you think that?’ That kind of conversation is very organic and natural.

Here, Riley valued the dialogic nature of their reflections, which allowed her to deconstruct her teaching experiences and gain insights into her practices. One memorable example Riley shared illustrates how her AT’s feedback transformed her instructional approach. She recalls:

Last year, I was giving instructions for group work, and I said ‘group work’ early in my explanation. I lost the kids right away because the second I said ‘group,’ all they thought about was, ‘Who am I going to be with?’ My AT pointed that out afterward and asked me, ‘What do you think happened?’ Ever since then, I’ve adjusted how I explain activities. Now, I explain the assignment first and mention group work at the end.

This feedback not only improved Riley’s classroom management but also highlighted the importance of clear and intentional communication.

Riley also reflects on how her ATs’ broader perspective enriched her understanding of classroom dynamics. She notes, “Because they’re watching you teach, they have a different

perspective. They might notice things you didn't, and they've been doing this longer, so they see things you wouldn't even think of." This highlights the value of mentorship in reflective practice. Her ATs' experienced perspective helped her see beyond her own view, deepening her understanding of classroom dynamics and encouraging professional growth.

Similarly, Dylan highlights the importance of discussing teaching experiences with his ATs, noting:

They've both given me a lot of opportunities to openly discuss with them how things went, how it could have gone better, how it could have been influenced by something out of your or their or my control. And I think that's more beneficial to me than writing would be—a discussion with someone who experienced the same thing as you.

These collaborative reflections provided Dylan with insights that would be difficult to achieve through solitary reflection or writing alone. Dylan acknowledges that his ATs—both from his previous and current placements—have significantly supported his reflective growth by modeling reflective behavior. He also describes them as “very reflective people...thinking about what they could do better, thinking about what they could change, even though they've been teaching for a long time.” This modeling underscores the critical role of experienced mentors in demonstrating reflective practices to novice teachers.

Dylan reflects on the unique nature of the AT relationship in teacher education. He contrasts the mentorship dynamic with the relationships he anticipates having with colleagues as a full-time teacher:

Once you move into full-time teaching, you lose that relationship. Even if you work with a supportive staff, they're not in the room with you. Teaching can feel isolating in that

sense. So, having an AT who's there with you, experiencing the same thing, is a rare opportunity to get feedback and reflect together in a way you don't have later.

This observation underscores the transient yet impactful role of ATs in a teacher candidate's professional development. He values the rare opportunity ATs provide for immediate feedback and collaborative reflection, a perspective he shares with Riley, who highlights how ATs' broader observations enrich understanding of classroom dynamics by offering insights teacher candidates might otherwise miss.

Riley and Dylan's insights further illustrate the transformative impact of dialogic reflection. Both participants benefited from collaborative discussions with their ATs, which aligned with Hatton and Smith's (1995) framework for reflective dialogue. Riley valued the actionable feedback and safe space her ATs provided to refine her teaching identity, while Dylan highlighted the importance of reflective modeling and real-time feedback in bridging theory and practice. These findings resonate with Kolb's (1984) experiential learning theory and Zeichner and Liston's (1996) emphasis on contextualizing experiences through reflective dialogue. Martin and Russell's (2018) work affirms these perspectives, emphasizing that meaningful mentorship is rooted in a reflective partnership where candidates and supervisors learn from one another through reciprocal dialogue and shared experiences.

Other participants share differing perspectives. For example, Taylor and Jordan offer contrasting views on the quality of mentorship. Taylor's observations reveal contrasting experiences: a deeply supportive and collaborative mentorship with her first AT, and a more self-reliant reflective process in her current placement due to her AT's limited availability. Her first year AT stands out as an example of effective and nurturing mentorship:

She was really supportive in reflective practice. a lovely, lovely teacher, very wonderful. I felt very safe reflecting with her because she never said things like, ‘Oh, you messed up,’ or anything like that. She was gentle, forgiving, and understanding. Not that I messed up badly, but I can be quite critical of myself sometimes. She would often say, ‘Taylor, I think that went better than you think it did,’ which helped me a lot.

For Taylor, this safety was pivotal, as she tends to be self-critical. Her AT’s reassurance—such as pointing out when lessons went better than Taylor believed—helped her gain a balanced perspective on her teaching. This approach aligns with Korthagen’s (2004) emphasis on the emotional aspects of reflection, which argue that candidates are more likely to engage in honest self-assessment when they feel supported and valued.

In contrast, Taylor’s current AT, while described as “wonderful,” has limited time to engage in reflective discussions due to the demands of her high-needs classroom. She notes:

My current associate teacher is also wonderful. She’s really busy and stressed because she has some very high-needs students in her class. So, the reflection I’ve been doing this year has been more by myself, which is fair given how busy she is.

This shift has necessitated a more independent approach to reflection for Taylor. While she acknowledges the validity of her AT’s constraints, the lack of direct mentorship in this placement underscores the variability in reflective opportunities teacher candidates receive.

Jordan similarly contrasts her first AT’s detailed feedback with her current AT’s hands-off approach. In her first placement, Jordan’s AT was proactive in fostering reflection, providing both written and verbal feedback. Jordan recalls, “She always reflects. She makes a note and says, ‘This is great, but next time, if you can look at these points, the children will respond more.’” This AT consistently offered constructive guidance, noting what worked well and

suggesting improvements for future lessons. This structured feedback helped Jordan develop a deeper understanding of how her teaching decisions affected student engagement.

However, Jordan's current placement presents a contrasting dynamic. Her second AT takes a more hands-off approach, stating that if she doesn't provide feedback, it means everything is fine. While this approach may signal trust in Jordan's abilities, it leaves her uncertain about areas for improvement. Jordan notes, "If she starts to speak, I don't know where I'm going to change or do stuff." Jordan's experience shows that limited feedback, though well-intentioned, can hinder reflection by leaving her unsure of what to improve or change.

A particularly impactful moment for Jordan was observing her AT's approach to setting expectations for gym class. The AT modeled effective classroom management by repeating clear instructions and engaging students in a structured routine. "She was always repeating...you are going to do this first, you are going to do this second, and then you are going to do this when I ask you to stop." This repetition ensured that students understood and followed the rules, creating a calm and organized environment. Additionally, the AT's strategy of asking students to repeat instructions reinforced their understanding and accountability. Jordan reflects, "What I learned...is that reflection is important for me to see because we are asking the students, you're confirming and kind of things." This hands-on approach to mentorship aligns with Kolb's (1984) experiential learning theory, which emphasizes the importance of practical, real-world learning experiences.

The experiences of Taylor and Jordan reflect broader challenges in teacher education, where mentorship quality often varies due to factors like workload and availability (Clarke et al., 2014). Structured, actionable feedback aligns with effective mentorship principles (Hattie & Timperley, 2007) and fosters reflective growth. However, hands-off approaches risk missed

opportunities for deeper reflection and skill development (Feiman-Nemser, 2001). This variability underscores the need for teacher education programs to provide consistent training and resources for ATs to support reflective practices effectively, ensuring candidates develop both independent and collaborative reflective skills.

In the same vein, Cameron and Morgan's shared experiences illustrate the varied and influential role of their associate teachers in shaping their reflective practices and pedagogical approach. Their experiences highlight how mentorship can foster meaningful connections between theory and practice while also revealing the contrasts in mentorship styles and their implications for professional growth.

For Cameron, her AT in a prior placement emphasized the importance of observing and reflecting on students' engagement during unstructured activities. She explains:

Last year, we would teach something to the students, and then we'd go outside, and they'd incorporate their learning into play on their own. My AT would say, 'Look at what Frankie is doing over here,' and I'd see him drawing a small S and a big S in the snow. She'd say, 'This is what we did this morning.' She got me to start reflecting as students were engaging in play—during recess, during lunch. Reflect! See how they're making connections between their learning and the real world.

This experience underscores the significance of reflection-in-action, as described by Schön (1983), where Cameron learned to identify and analyze how students internalize lessons in real-world contexts. The AT's guidance helped Cameron recognize the value of observing students' independent applications of their learning, a practice that fostered deeper insights into their developmental processes.

In contrast, Cameron's current placement with more traditional AT presents a different dynamic. She observes:

This year, my AT is much older. They're still doing spelling tests—memorize these words, write them five times. Two years ago, I wouldn't have had any problem with that, but now I know the harm of it. I can see how temporary it is. They memorize the words, and it's gone as soon as they finish the test.

This shift highlights Cameron's growing critical perspective, informed by her prior experiences and reflective practices. While her current AT's traditional approach contrasts with her evolving philosophy, it also prompts her to reflect on the limitations of rote learning and the importance of fostering meaningful and lasting connections in education. Critique of rote learning aligns with Dewey's (1933) argument for experiential education, where learning is rooted in meaningful experiences rather than mechanical memorization. Her reflections demonstrate how mentorship can inspire teacher candidates to question traditional practices and explore more student-centered approaches.

Despite the differences in mentorship styles, Cameron continues to engage in self-reflection, acknowledging the significant role her prior AT played in developing this skill. She notes, "That's where it started for me—realizing the importance of reflecting on students and how they're making connections." This demonstrates how early mentorship experiences can leave a lasting impact, equipping teacher candidates with the tools to adapt and grow even in less supportive environments. Additionally, Cameron's reflections point to the value of equipping teacher candidates with reflective tools early in their training, enabling them to navigate and grow from varied mentorship experiences.

Morgan echoes this sentiment. Through detailed accounts, she illustrates how her ATs played a significant role in her growth as a reflective practitioner, offering constructive feedback and modeling reflective dialogue despite the challenges of their workloads. She recalls, “They really helped me a lot. Every time that I would have a lesson plan, I would ask my AT, ‘Where do you think it didn’t work? Why did I do that? How could I do better?’” This proactive approach to seeking feedback demonstrates Morgan’s openness to critique and her understanding of its role in professional growth. Her AT responded positively to her questions, noting, “I have had teacher candidates before, and they didn’t ask that question. When they didn’t ask, I wasn’t really comfortable even maybe sharing it.” This dynamic reveals the importance of teacher candidates initiating reflective conversations to encourage open and constructive feedback from their mentors.

Another significant aspect of Morgan’s experience was the balance her AT maintained between providing feedback and managing her workload. Morgan explains:

They also have to write a report. We had a midterm report and a final report. Other than that, I didn’t get any formal written feedback from my AT because she had enough on her plate—a very challenging class. The fact that she even took the time to discuss things with me verbally, I was satisfied.

This acknowledgment reflects Morgan’s empathy for the pressures ATs face, particularly in challenging classroom environments. She also notes that some of her peers in kindergarten placements did not receive even verbal feedback, highlighting the variability in mentorship experiences across different contexts. Through these interactions, Morgan realized the importance of being receptive to feedback and maintaining a growth mindset. She concludes,

“That’s how you grow—you should be okay with criticism. It’s about understanding your strengths and your weaknesses and knowing what to work on.”

Cameron and Morgan’s experiences underscore the variability in mentorship styles and their significant implications for professional growth. Cameron’s exposure to reflective modeling through observing students’ independent applications of learning aligns with Schon’s (1983) reflection-in-action framework, bridging theory and practice. Conversely, her critique of traditional rote learning echoes Dewey’s (1933) advocacy for experiential education, demonstrating how mentorship can inspire candidates to question outdated practices. Similarly, Morgan’s proactive engagement with her AT fostered dialogic reflection (Hatton & Smith, 1995), as her AT’s specific and actionable feedback enhanced her teaching methods and reinforced the importance of clarity and relevance in mentorship (Hattie & Timperley, 2007). Both participants highlight the relational nature of effective mentorship, emphasizing trust and empathy as key components (Loughran, 2002).

On their part, Adrian and Alex provide unique insights on their experiences with their ATs in the program. While Adrian acknowledges the variation in AT styles, “I noticed a pattern with my ATs. Some of them are more focused on helping you grow as a teacher by pointing out specific things. Others just kind of let you figure it out yourself.”, he acknowledges the positive influence of some ATs who went beyond surface-level mentorship to offer him pathways for professional growth. For instance, he appreciated those who provided guidance on career advancement, such as becoming a principal, which reflects the broader potential of ATs to act as career mentors rather than merely evaluators or classroom supervisors. He notes, “he really helped me out in...looking at the different pathways like beyond just being a classroom teacher.” This mentorship, Adrian notes, provided him with insight into opportunities beyond teaching,

making him feel supported not just in his immediate role but in his broader aspirations within the education system. His reflections highlight the value of mentorship that equips teacher candidates with the tools and encouragement to envision and pursue leadership roles in the future.

In another entry, Adrian discusses how feedback dynamics with ATs can shape the authenticity of reflections:

If someone was to be discouraged... whether that's through an AT or a professor, it might hinder their experience of how reflective, because most people are going to reflect on a positive note. A lot of people aren't going to reflect on a negative note and then submit that.

Here, he highlights that candidates may avoid negative reflections if they fear judgment, indicating the importance of creating a supportive environment where critical reflection is encouraged.

Adrian's reflections extend the discussion of ATs' role by addressing a critical gap in representation and inclusivity within the program. Adrian's reflections extend the discussion of ATs' role by addressing a critical gap in representation and inclusivity within the program. Adrian critiques the program for its lack of representation among ATs, particularly BIPOC educators (Black, Indigenous, and People of Color), and the impact this has on his experience and that of students. He explains:

I find that there is no BIPOC ATs in the whole program...if we're moving into this new age of like everyone should be respected, and everyone should have equal opportunities, like, why aren't they trying to recruit more BIPOC ATs for people like me? Where I go

in, and I'm the only Black person sometimes in the whole school for years and years and years.”

Adrian's reflection highlights a significant concern about representation and equity in teacher education. His critique underscores how the absence of BIPOC ATs affects both his sense of belonging and the broader goal of fostering inclusive, culturally responsive learning environments. Adrian also reflects on how this absence affects students, adding, “The kids are like, ‘Oh, wow! I've never had a Black teacher before.’ That's crazy to me.” Adrian points out that this lack of representation not only affects his own sense of belonging and mentorship experience but also deprives students of the opportunity to see themselves reflected in their educators. His perspective underscores a significant limitation in the program's efforts to foster an equitable and culturally responsive educational environment, raising important questions about the alignment between the program's stated values and its practices.

This aligns with Gay's (2018) work on culturally responsive teaching, which emphasizes the importance of diverse representation among educators to validate and affirm students' cultural identities. Representation matters not only for students but also for teacher candidates, as Ladson-Billings (1995) highlights the need for mentors who share similar lived experiences to guide reflective practices that are attuned to diverse cultural and social realities. Moreover, Zeichner (2009) argues that teacher education programs have a responsibility to recruit and support diverse mentors to prepare candidates for the multicultural and inclusive classrooms they will encounter. Adrian's critique echoes these perspectives, pointing to a missed opportunity for the program to embody inclusivity in its mentorship practices, thus affecting the depth and relevance of reflective growth for teacher candidates like himself.

Alex's narratives provide a unique perspective comparing her experiences during and after the teacher education program. Her reflections illustrate the profound impact mentorship can have—both positively and negatively—on a teacher candidate's confidence, authority, and ability to engage in reflective practice. At the start of her practicum, Alex encountered a challenging situation where her AT openly criticized her teaching, stating that she was “not great at teaching.” This comment deeply affected Alex, leaving her feeling unsupported and undervalued. Seeking guidance, she turned to her professor, who provided a much-needed lifeline. The professor not only observed her teaching but also offered a validating report that highlighted her strengths. “He wrote a really nice report and said you have done such a wonderful job,” Alex recalled. This intervention restored her confidence, allowing her to see her own potential as a teacher. The professor also provided critical context, explaining that her AT might have been struggling with personal conflicts, and encouraged Alex to persevere. This empathetic guidance gave her the reassurance to focus on her lesson plans and see challenges as opportunities for growth.

Despite the support from her professor, Alex struggled with the mentorship dynamic established by her AT. She described feeling a lack of authority in the classroom, which inhibited her ability to reflect in the moment—a practice she values deeply. “If I stop, she's going to tell me, ‘What do you have next? What's your other plan?’” This pressure to constantly have a backup plan left little room for Alex to adjust her teaching based on her students' immediate needs. Instead, she found herself reflecting after the lesson, under the shadow of her AT's expectations. This rigid supervision stifled her ability to engage in reflection-in-action, a concept championed by Schon (1983), which emphasizes real-time reflection and adaptation.

In contrast, Alex's current teaching practice as a full-time teacher provides her with the autonomy to reflect and adjust dynamically. She explained how she now reorders lessons or switches subjects based on the classroom energy, tailoring her approach to the students' needs. "If we have art last period, I bring art to the first period and do language after," she noted. This freedom to "read the room" and adapt her teaching has strengthened her reflective practice, illustrating the growth she has achieved since her practicum.

Alex's story highlights the dual role of mentorship in teacher education. On one hand, her professor exemplified the qualities of affirmative mentorship, validating her efforts and providing constructive feedback that empowered her. This aligns with Hudson (2013) findings, which emphasize the importance of mentorship in fostering teacher candidates' confidence and reflective capacity. On the other hand, her experience with a rigid AT underscores the challenges of overbearing supervision. As Clarke et al. (2014) and Feiman-Nemser (2001) suggest, effective mentorship requires a balance of guidance and autonomy to support teacher candidates' growth. For Alex, the mentorship she received was a mixed blessing, but it paved the way for her evolution into a confident and reflective educator.

Collectively, these findings reveal the critical role of ATs in fostering reflective growth among teacher candidates, while also exposing inconsistencies in mentorship quality. Martin and Russell's (2018) insights into the importance of practicum supervisors as reflective partners reinforce the need for teacher education programs to address these gaps. Programs should prioritize equipping ATs with strategies to balance professional demands with effective mentorship, foster collaborative and empathetic relationships, provide actionable feedback, and model reflective practices. These efforts can ensure candidates are prepared for the complexities

of teaching in diverse educational contexts, while also enabling ATs to fully embrace their role as facilitators of reflective learning.

Theme 7: Barriers to Reflection

While reflection is often portrayed as a critical component of teacher education, teacher candidates identified several barriers that hinder their ability to engage deeply with reflective practices. These barriers range from time constraints and competing academic demands to a lack of understanding of the purpose and value of reflection. Institutional and structural challenges, such as rigid assessment frameworks and limited opportunities for authentic dialogue, further complicate the reflective process. This theme explores the obstacles teacher candidates face and highlights the need for supportive conditions that enable meaningful and transformative reflection in the context of Initial Teacher Education programs.

One of Alex's central challenges is the issue of time. Balancing the demands of being a supply teacher with the program's reflective requirements, she conveys the difficulty of carving out moments for reflection amidst a packed schedule. She explains, "There isn't time. Maybe when you're a vet, maybe when you're in a field for 10 years, maybe you'll have time to reflect." Her comment underscores the perceived impracticality of reflective practices for educators juggling numerous responsibilities. This resonates with her observations about experienced teachers, who also struggle to prioritize reflection while managing lesson plans, individualized education plans (IEPs), and communication with parents.

Another significant point Alex raises is the nature of written reflections, which she finds "time-consuming" and disconnected from her personal experience. She explains:

Even with bullet points, people might say, 'Oh, it only takes five minutes,' but in those five minutes, I'm thinking, 'I could've used this time to take a walk outside.' For me, it

feels like a lot of effort. For others, it's just not part of their journey or personal life. But in today's college environment, we have to do it for marks. I'm just being honest.

This statement captures a critical challenge: the perceived lack of value in reflective tasks when they are framed as academic obligations rather than opportunities for meaningful professional growth. The requirement to reflect "for marks" adds to this tension, suggesting a potential misalignment between the purpose of reflection and its implementation within the program.

Alex also identifies a gap in the program's instruction on how to reflect effectively. She states:

I don't really remember ... I don't know. Because we've done reflection throughout undergrad, so I think everybody knew how to write reflections. But of course, with practicum, it's different ... we consider it an actual assignment for marks.

This admission highlights the assumption within the program that students come equipped with the necessary reflective skills, which may not always be the case. Moreover, the graded nature of university reflections contrasts sharply with the conversational, open-ended reflections Alex associates with discussions with associate teachers (ATs), professors, and peers:

We all come to the classroom earlier, right before the professor or even in the hallways.

We're just literally standing together and talking about how our practicum went and coming up with different solutions. That was the best time for us.

These interactions, characterized by mutual support and active participation, provided a dynamic and impactful reflective experience. Alex contrasts these moments with the solitary nature of written reflections, emphasizing that verbal dialogue fosters a sense of community, immediate feedback, and practical advice.

Alex advocates for integrating more hands-on, interactive learning paired with social, dialogue-based reflection into the program. She suggests that such an approach would better support diverse reflective styles and prepare student teachers for real-world challenges. Her narrative underscores the limitations of formalized reflection tasks in accommodating the varied needs of teacher candidates and the importance of fostering collaborative environments where reflective practice can thrive.

Overall, Alex's critique calls for a reimagining of reflective practices within teacher education programs—shifting from performative, isolated tasks to more embodied, interactive, and socially engaging approaches that align with the realities of teaching.

In the same vein, Taylor highlights how the expectation to submit reflections for assessment compromises their authenticity, a tension exacerbated by inconsistent feedback from professors. She recounts a disheartening interaction where feedback on her written reflection revealed a disconnect between the program's goals and her own reflective intentions:

And then the professor responded to that reflection, and I was like, yeah, so you were not looking for meaningful reflection on my actual positionality. You were just looking at whether or not I am able to perform a reflection.

This incident encapsulates her perception that reflective exercises in the program prioritize performative compliance over genuine self-exploration. The experience diminished her willingness to share authentically and fostered a sense of mistrust in the reflective process. Taylor emphasizes the need for meaningful feedback that validates and nurtures deeper engagement with reflection, “For reflection to be significant and for it to make change... you kind of need immediate feedback. You need conversation.”

She critiques the delayed or superficial feedback often received, which undermines the relevance of reflections and their potential to inform teaching practice. This frustration highlights the performative nature of some reflective assignments, where meeting superficial academic requirements takes precedence over transformative introspection:

If I can be performatively doing the right type of reflective practice, then I can get a job...

Are you actually going to talk about your real flaws as a teacher, or are you going to be doing like meaningless reflection that makes you sound good?

Her comment exposes the tension between authentic reflection and performative expectations. When feedback is delayed or shallow, it diminishes the value of reflection, encouraging surface-level responses aimed at meeting requirements rather than fostering real growth.

Taylor's reflective journey is shaped by a duality of vulnerability and resilience. While she values self-reflection as a tool for growth, she acknowledges its emotional toll. She mentions, "I think one of my challenges is remembering to make my reflective practice loving towards myself... Instead of being, I want to punish myself for everything I did wrong."

Her struggle to balance self-criticism with self-compassion is compounded by perceived judgment from professors, prompting her to adopt a guarded approach in official reflections. This discomfort underscores the importance of creating a supportive environment for reflective practitioners, as highlighted by Larrivee (2000).

Taylor also critiques the lack of embodied reflective practice in the program, advocating for an approach that actively models and engages students in reflection: "Instead of telling teachers how to do reflective practice, it should be more like showing teachers and involving them in it." Here, Taylor calls for a shift from telling to showing—emphasizing that reflective

practice should be modeled and experienced, not just explained. Her insight highlights the need for embodied, participatory approaches to truly support meaningful reflection.

She observes a disconnect between the reflective ideals promoted in the program and the behaviors modeled by some faculty, whom she describes as “stale.” This critique aligns with Brookfield’s (2017) argument that educators must embody the reflective practices they teach to foster a reflective culture among students.

Additionally, Taylor challenges the overwhelming number of reflective assignments in the program, calling for a focus on quality over quantity:

More reflections that we return to instead of assignments that we hand in and never think about again... instead of having so many reflections, having fewer, more meaningful reflections that you return to.

Her vision emphasizes the importance of deeper, iterative reflection over repetitive tasks, advocating for assignments that encourage sustained engagement and meaningful growth.

Reflecting on her experiences from the previous year, Jordan describes her reflective assignments as rigid and lacking depth. She states, “They mainly involved writing about what I planned to do better next time for lessons. On Wednesdays, I was able to go to school, apply what I planned, and then reflect afterward.” This indicates a surface-level approach to reflection, where the focus was primarily on procedural improvements rather than deeper self-exploration or critical analysis.

Jordan further elaborates on the disconnect between planning and reflection in the program:

When we were just planning lessons theoretically without actually teaching, the reflection section often remained empty. It’s hard to reflect theoretically when there’s no practical

teaching experience to base it on. That's why, in teacher education, the reflection part sometimes feels incomplete.

This highlights a significant barrier—reflection feels incomplete or irrelevant when it is disconnected from actual teaching experiences. Without the opportunity to apply their plans in real classroom settings, Jordan found it difficult to engage meaningfully with the reflective process.

Jordan also underscores the challenge of managing varying feedback styles from associate teachers and peers. While she appreciates feedback that identified areas for improvement, she notes that many reflections emphasized only the positives:

Last year, we practiced reflecting with peers. Often, people focus on saying, 'I enjoyed your teaching,' or 'This was great,' which is fine. But for me, when I reflect, I focus on what I need to fix. That's how I approach it—drawing from my experiences.

This suggests a disconnect between the type of reflection Jordan values—constructive and growth-oriented—and the feedback she often received, which leaned toward affirmation without actionable insights.

Jordan views reflection as both a personal and evolving skill, tied closely to her teaching experiences. She states, “Reflection is personal—you feel it. I can reflect on my teaching because it comes naturally with teaching skills ... In school, reflection is just one part of the process.” However, she acknowledges the value of guidance. When asked if reflection should be taught, Jordan responded: “When we talk, I think maybe.” This suggests that conversational reflection, rather than written or theoretical approaches, aligns more closely with her preferred style of engaging in reflective practice.

To enhance the program, Jordan suggests that reflective assignments should be more closely tied to practical teaching experiences, which allows for deeper connections between theory and practice. Jordan's narrative emphasizes the importance of tailoring reflective practices to the realities of teaching. She advocates for reflection that is both actionable and grounded in experience, enabling teacher candidates to identify areas for growth and implement meaningful changes in their practice.

Dylan highlights the challenge of balancing the ideal of reflection with the practical demands of teaching. He emphasizes that teachers' giving nature often leads to self-sacrifice, leaving little time for reflection:

Teachers have that giving heart. We always put ourselves second because our kids and schools come first. It's hard to say you want to be reflective when you don't have time to actually put it into action ... Time is a challenge.

This perspective highlights the importance of designing reflective practices that are both meaningful and realistic within the constraints of teachers' responsibilities.

Similar to the other participants, Dylan expresses discomfort with the formalized nature of reflective assignments, feeling that they lacked authenticity. He expresses, "If you are forced to reflect, then you're not really reflecting. It becomes more of a written response that you're forced to do, rather than a true reflection." Here, Dylan emphasizes that reflection should be a personal and voluntary process, but when required as an assignment with deadlines, it often felt artificial and disconnected from genuine self-exploration. Even when reflections were ungraded, Dylan notes a subconscious concern about how his writing might be perceived by others. He remarks, "Even if no one is going to read this, you still wonder, what if someone does? You start

to sugarcoat your writing, and it's not really a true reflection." This awareness influenced the depth and honesty of his reflections, creating a barrier to fully engaging in the process.

Dylan echoes Taylor's emotional sentiment about self-criticizing oneself: "I think that a lot of people are reflecting on things a little too deeply and critically, and it can snowball into hyper-reflection where you're overthinking the little things that you can't change." He highlights a tendency to overanalyze, which sometimes leads to unnecessary self-criticism and anxiety. He observes that excessive reflection on certain experiences could become counterproductive, causing him to focus on unchangeable aspects or minor details rather than actionable insights,

Dylan finds writing reflections particularly challenging, as he often struggled to translate his thoughts and feelings into words. The process of formalizing his reflections for written submissions felt less natural and authentic compared to verbal discussions or internal processing. He states, "When I start to write it down, it feels like a falsified version of the reflection. It's not really what I think—it's what I think I should write."

Dylan observes variability in how reflective practices were implemented across courses and placements. "Some professors structured it more, which provided clear expectations, but it felt rigid. Others were open-ended, but that made it harder to know what to take away from the discussion." While some professors encouraged structured prompts and guided discussions, others offered open-ended, less directed approaches. This inconsistency sometimes made it difficult to understand the expectations or to find value in the reflective exercises.

Dylan identifies a challenge in how reflective practice is approached in his teacher education program. He remarks, "I guess, instead of making teachers reflect, they could teach us more about the benefits of reflection. And then we can propose, of course." He suggests that rather than directly pushing teachers to engage in reflection, the focus could shift to educating

them on the benefits of reflection, which could foster more genuine engagement. He asserts, “If you were to teach people the benefits of critical reflection... that could create a more reflective culture in your classroom, and thus make more reflective people who may end up being teachers in the future.” He emphasizes that understanding the value of critical reflection, even in simple forms, could foster a reflective culture within classrooms, potentially influencing future generations of teachers. By understanding the purpose and benefits, teacher candidates may be more inclined to adopt reflection as a meaningful part of their practice rather than a mandated task.

However, Dylan also questions whether fostering such a culture aligns with the current scope of teacher education programs, pointing out a disconnect between long-term outcomes and immediate program goals: “But that I don't know is that really the education program anymore? I mean, it's pretty far removed at that point.” This highlights a perceived gap in the program's approach to reflective practice—one that could benefit from a stronger emphasis on building foundational understanding rather than mandating specific reflective tasks.

Morgan identifies both structural and personal barriers to implementing and sustaining reflective practice effectively within the program and beyond. She acknowledges that finding time to reflect daily amidst the demands of teaching and personal life is difficult, especially for new teachers or those balancing multiple responsibilities, such as parenting like herself. She explains:

Unless you're very much organized and you have everything under control, the fact that you have the time to self-reflect every single day at the end of the day is probably not possible. I haven't seen it in many teachers.

Morgan elaborates further, saying, “If I go home and I deal with my kids and I do the cooking, and I do my assignments ... I will have forgotten half of the things that I've done that day.” This highlights how delayed reflections may result in forgetting critical details, underscoring the importance of recording reflections promptly.

Reflecting on past experiences, particularly challenging or uncomfortable memories, is another difficult aspect of reflection for Morgan. She shares, “Digging into the past...is not so much comfortable, especially if you've had a past ... had teachers that were not good.” This discomfort suggests that certain reflective practices may require additional emotional support to foster honest and meaningful engagement.

When reflective practice fails to lead to actionable change, Morgan experiences frustration and a sense of stagnation. She reflects, “The part that is harder... is the fact that you self-reflect and you don't act upon it. It gives you a kind of hopelessness.” This sentiment emphasizes the need for reflection to be tied to actionable steps and visible progress to maintain its relevance and impact.

Morgan also critiques the program for not providing clear strategies or structures for reflective writing, making it challenging to determine how best to approach reflection: “They didn't teach us the strategy of self-reflecting...They just said that, you know, you think about it, and then you write it.” This excerpt highlights a gap between expectation and support. Without concrete strategies, reflection can feel vague and inaccessible. This limits its potential as a tool for learning and growth. Like other participants in this study, Morgan's comment underscores the need for explicit instruction in reflective writing. Moreover, while Morgan appreciates feedback from mentors and peers, she notes that reflection is often initiated through verbal discussions rather than written feedback. She observes, “Most of the time, they discuss your

performance verbally... She had enough on her plate.” This may limit opportunities for deeper analysis.

Riley highlights the challenge of mandatory reflection, explaining, “As someone who reflects naturally, I sometimes find it annoying to be forced to do it explicitly in Teacher’s College ... The forcedness of it, I think, is a very big challenge.” She also describes the monotony of daily reflections: “When you’re doing the same thing every day, it’s hard to find something new to reflect on.” This underscores the need for balance in reflective practices, as excessive or forced reflection can diminish its value. She further elaborates on the pressure to reflect, stating, “The challenge is often finding the motivation or feeling pressured to write just for the sake of it. Sometimes it feels like, 'If I don’t write enough, maybe someone will get upset with me.' Even though I’m not sure anyone actually looks at it, that thought lingers. The hardest part is when reflection feels forced.” She notes that reflections tied to assignments often feel less impactful or relevant, contributing to a sense of inefficiency.

The evaluative nature of reflections further intensifies the pressure. “Because it's tied to our school and marks, it instantly has this anxiety of, ‘Am I doing it right?’” Riley points out that this pressure is particularly challenging for perfectionist students: “When you have a room full of Type-A perfectionists, it raises anxiety levels.” She adds that many of her peers struggle to detach from the focus on grades, which shifts the purpose of reflection away from personal growth.

Riley also emphasizes the lack of feedback on written reflections, such as those in the practicum notebook: “We don’t receive feedback on our reflections.” This absence of guidance leaves students uncertain about the effectiveness of their reflections or whether they are even reviewed.

She highlights the importance of clear guidelines, suggesting, “If the expectation is that it’s open-ended and organic, just say that. It would reduce anxiety.” Additionally, she echoes Adrian’s perspective on focusing reflections on ideas rather than grammar, stating, “Reflections should be about the ideas, not the grammar.”

Riley believes that teacher education could better support students by teaching them how to reflect effectively:

I think it would be helpful for some. Many people around me felt anxious about it. Since reflection is tied to school and sometimes grades, it creates pressure to do it 'right.'

Instead of being a personal process, it becomes about getting an A+, which shifts the entire purpose.

This comment reveals how grading and unclear expectations can turn reflection into a source of stress rather than a meaningful learning process. Here, Riley emphasizes the need for teacher education programs to teach reflection more intentionally, helping students engage with it authentically rather than performatively.

On her part, Cameron highlights one significant challenge; the overwhelming nature of constant reflection. She explains, “Sometimes, I’m reflecting too much. I feel like I’m reflecting 24/7, and I just want to turn my brain off.” While reflection has been beneficial, the pervasive expectation to engage in it has made it difficult to set boundaries, leading to mental fatigue.

Initially, Cameron approached reflective assignments with resistance. She initially viewed them as tasks tied to grades rather than personal growth:

In the beginning, I didn’t see...to be honest, I didn’t think there was anything that beneficial that would come, like, other than a grade, you know, or other than a completion mark. That’s all I saw it as for the first few times.

Over time, repeated engagement with reflection led to a gradual shift in perspective, but the initial skepticism underscores the importance of framing reflective practices as valuable beyond academic requirements.

The time-consuming nature of reflection also posed challenges for Cameron, particularly as she delved deeper into the process. She notes, “I started reflecting too much. I write it sometimes. Sometimes I’m doing it as I go all the time. And then it just became like everything—I’m reflecting on everything. It could be too much.”

Balancing depth and brevity was another struggle. Cameron shares:

I realized I need to get more in-depth. I need to get deeper when I’m talking about this. How can I make the professor understand my position? Every time I add more detail, I express more of the feelings that were happening around a certain situation.

While this added depth made her reflections more meaningful, it also increased the effort required, contributing to her sense of overwhelm.

Like other participants, a lack of clear guidance on how to reflect further compounded these challenges. Cameron recalls:

I would ask [professors], ‘Okay, but how long does it have to be? Or what kind of criteria do you need in this?’ And they were always just like, ‘Just reflect on it, you know. Just let it come out.’

While this open-ended approach eventually helped them develop a personal style of reflection, the initial ambiguity made the process daunting.

Emotional strain was another barrier Cameron identifies, as reflection often required confronting difficult emotions and personal shortcomings. She describes it as “challenging and uncomfortable,” highlighting the vulnerability required to critically examine personal

experiences. Additionally, Cameron faced tension between the progressive reflective practices emphasized in their teacher education program and the traditional teaching methods encountered during their practicum placements:

I go to [my program], and this is their saying: make it fun, make them engaged, don't just memorize. Then I go here, and this is somebody who is very traditional in the way she's teaching. I'm trying to find a middle ground for these two.

This contrast added complexity to Cameron's reflections as she navigated conflicting approaches and worked to reconcile these perspectives.

Adrian highlights the time-intensive nature of written reflections, compounded by his dyslexia and learning disabilities. He remarks, "When I'm writing, it takes a long time for me to get situated. With my dyslexia and learning disabilities, it takes me a long time to start my work." This difficulty contrasts sharply with his ease in verbal reflection, which he finds more efficient and authentic. Adrian elaborates:

If someone was to have a conversation about my honest thoughts and opinions, that flows a lot easier for me. I could cover six topics in a 5–10-minute conversation, while written reflections take me hours to make sure they're correct.

Adrian finds conversational reflection more natural and efficient than writing. This suggests that flexible, multimodal approaches could better support diverse learners in engaging meaningfully with reflective practice.

Adrian expresses frustration over unclear expectations for reflection assignments, which created anxiety and confusion. He states, "I don't find that the expectations are clear...

Reflection is so subjective that it's hard for someone to give you a mark. And honestly, I don't

think anyone should be marking reflections—it's your truth." This ambiguity made it difficult for Adrian to approach reflections with confidence, especially given the evaluative context.

The pressure of academic evaluation often led to a focus on meeting grading criteria rather than engaging in genuine reflection. Adrian explains:

You're not testing someone's writing skills in a reflection; you're testing their ideas. But I spent so much time worrying about grammar and punctuation that it took away from the actual content. It's hard to conceptualize because, if they can't understand what I'm writing, it loses value, but it's frustrating that it takes away from the reflection itself.

This excerpt shows how grading pressures shift focus from ideas to writing mechanics, making it harder to engage in authentic reflection. Adrian further critiques the lack of authenticity in reflective assignments. He notes that students often tailor their responses to align with perceived expectations:

A lot of the reflections you're going to get are positive because, even if someone doesn't feel positive about the program, they'll just write something that sounds good for the mark. That's why I don't think all reflections are authentic.

For Adrian, verbal reflection offers a more natural and impactful medium:

I reflect during teaching quickly so I can change my lessons on the spot. After I'm done, I think about how it went. Did it work? Did the students get it? That's more authentic for me than writing something down.

Adrian critiques the performative nature of written reflections. He suggests that students often write what they think will earn a good grade. He thus finds verbal reflection during and after teaching more authentic and effective, allowing for immediate and meaningful adjustments.

Adrian finds the frequency and redundancy of reflective assignments overwhelming and counterproductive. As he explains, “if you’re doing ten reflections in a semester for one class, there’s no way all of them will be authentic. You’re just mass-producing something.” He emphasizes the importance of pairing reflection with actionable outcomes: “Reflection is useful, but only when paired with application. If you’re not applying what you reflect on, then there’s no purpose to it.” Additionally, he points out that the practical demands of placements often leave little room for reflective practice:

During your placement, you’re focused on so many other things—lesson plans, managing your classroom, getting along with your associate teacher. There’s not much time to actually process these thoughts, even though they might be good.

Here, he highlights how the demands of placement can limit opportunities for reflection. With so much focus on planning and classroom management, there’s little time to process experiences, even when valuable insights arise.

Adrian, like other participants, shares that the program offered minimal guidance on how to engage in reflective practice:

No one really showed us how to reflect. They gave us assignments and talked about them, but I’ve always just been reflective for personal growth. The formal process was something I had to figure out on my own.

So, Adrian highlights a gap in instructional support. While he values personal reflection, he found the formal process unclear and had to navigate it independently. He questions the long-term value of written reflections for teaching practice, “I think it would be more for nostalgia than anything else. I don’t think I’ll ever look back and think, ‘Oh, wow, I could really use that right now.’”

Adrian highlights how external feedback influences reflective practice. He believes that discouragement or criticism can hinder student engagement: “If someone discourages you, or just feeling uncomfortable in the classroom environment—it can make it hard to want to reflect honestly.”

Collectively, the teacher candidates' reflections on barriers to reflective practice reveal a range of personal, institutional, and contextual challenges that hinder their ability to engage in meaningful reflection. Time constraints, the perceived performativity of reflective assignments, and the lack of explicit guidance on reflective methods emerge as significant obstacles. The tension between mandatory reflections and their authenticity, compounded by inconsistent or superficial feedback, underscores the need for reflective practices that prioritize quality, depth, and actionable outcomes over quantity or compliance.

Furthermore, emotional vulnerability and the cognitive demands of written reflections highlight the importance of creating supportive and flexible environments that accommodate diverse reflective styles. Participants advocated for more dialogic and collaborative approaches to reflection. They emphasize verbal interactions and immediate feedback as more authentic and impactful modes of engagement. These findings align with research emphasizing the need for reflective practices that are integrated into the lived experiences of teaching, rather than isolated academic exercises (among others, Brookfield, 1995; Brookfield, 2017; Korthagen et al., 2001; Korthagen & Nuijten, 2022; Larrivee, 2008; Russell, 2014, 2022; Russell & Munby, 1991).

This understanding resonates strongly with Aoki's notion of curriculum-as-lived, which foregrounds the complexity, relationality, and indeterminacy of classroom life. Aoki reminds us that the enacted curriculum is not merely the intended or planned curriculum, but is co-constituted in the moment through the teacher's and students' lived experiences. From this

perspective, reflection is not an add-on but an embodied, situated, and interpretive act—a way of making sense of the tensions and ambiguities encountered in practice.

In relation to my conceptual framework, Aoki's work affirms the constructivist underpinnings of this study, which view knowledge as socially constructed through interaction, interpretation, and meaning-making. His emphasis on dwelling in the in-between spaces of curriculum, identity, and pedagogy complements the application of Freire's praxis as well as reflective frameworks such as Kember et al. (2008) and Hatton and Smith (1995). Together, these perspectives guide the analysis by framing reflection not only as a cognitive or developmental process, but also as a deeply contextual, dialogic, and ethical practice shaped by the lived tensions of teaching and learning. These conceptual insights help illuminate why the barriers encountered by teacher candidates are not merely individual shortcomings but are shaped by broader curricular and institutional structures.

Overall, these barriers point to the necessity of reimagining reflective practices within teacher education programs. Programs must shift from rigid, assessment-focused models to approaches that value iterative, authentic, and socially engaging reflection. By addressing these challenges, teacher education can better equip candidates with the reflective skills needed to navigate the complexities of teaching and foster professional growth in a supportive and meaningful way.

The following section examines the textual analysis of teacher candidates' reflective journals, providing insights into the levels of reflection evident in their writing and uncovering how teacher candidates navigate reflective processes within the practical realities of their Initial Teacher Education programs.

Part 2: Written Reflective Journals

Building on the insights gained from the interview data, this section shifts the focus to teacher candidates' written reflections, offering a deeper examination of how they engage with reflective practice in their practicum experiences. While the interviews provided teacher candidates' perceptions of reflection and its role in their professional development, the analysis of written reflective journals allows for an exploration of how reflection is actually demonstrated in their writing. By analyzing the reflective journals, this section examines how teacher candidates document their experiences, engage in critical thinking, and apply theoretical knowledge to real classroom situations.

Delving into the Complexity of Teacher Candidates' Reflective Journals

My research question 3 seeks to explore how reflective practices manifest in teacher candidates' written reflections, with a focus on assessing the depth and quality of their engagement with their practicum experiences. The objective is to identify the extent to which Teacher candidates demonstrate critical thinking, self-assessment, and the application of theoretical knowledge in practical teaching situations. Moreover, the analysis aims to determine whether Teacher candidates are merely recounting their experiences or engaging in deeper analysis and reflective learning, 'turning experience into learning'(Boud et al., 1985/2013).

To analyze these reflections, I employed a deductive approach, guided by Kember et al.'s (2008) framework, which categorizes reflection into four distinct levels: habitual action (non-reflection), understanding, reflection, and critical reflection. Each level offers a means of gauging the depth and sophistication of the reflective process. This line-by-line analysis allowed for a detailed examination of the meaning units—discrete segments of text that encapsulate a single idea or theme—assigned to the respective reflection levels. Treating segments of text as

meaning units rather than individual words or sentences enabled a more comprehensive understanding of the reflections and their embedded nuances (Elo & Kyngäs, 2008). These codes acted as heuristic tools, enabling new interpretations of the written reflections and fostering a deeper understanding of the reflective process (Coffey, 1996; Strauss & Corbin, 1998).

During the analysis, it became apparent that individual journal entries often contained multiple layers of reflection, making it challenging to categorize meaning units under a single level of reflection. In some instances, Teacher candidates' written reflections exhibited two or three levels of reflection within a single paragraph. In such cases, I followed the principle of coding each segment according to the highest level of reflection present, ensuring a consistent and rigorous application of the Kember et al. (2008) framework (G. W. Ryan & Bernard, 2003). The following sections provide further explanation of this process.

This analysis emphasizes the practical application of teaching as a central aspect of teacher candidates' reflective practices, aligning with the broader constructivist focus of this study. Teacher candidates often reflect on their teaching experiences to navigate the challenges of lesson planning, classroom management, and adapting strategies to meet student needs. These reflections highlight how theory is translated into practice through iterative cycles of action and adjustment. By critically examining their actions in real classroom scenarios, teacher candidates develop a deeper understanding of their professional practices and the impact of their decisions. This connection underscores the integral role of reflection in bridging the gap between theoretical knowledge and practical application, fostering growth and adaptability in the teaching profession.

To address research question two, I have organized the findings based on the levels of reflection as outlined in Kember et al.'s (2008) framework. The findings are presented by

analyzing the teacher candidates' written reflections across four levels of reflection: non-reflection, understanding, reflection, and critical reflection. Each section highlights the depth and quality of the reflections, illustrating how teacher candidates engaged with their practicum experiences. I have provided examples from their reflections, demonstrating key themes and insights at each level. Through this structure, this section captures the progression of reflective thought, showcasing both the variations in reflective practice among Teacher candidates and the overall patterns that emerged during the analysis. Table 5 below, shows the distribution of Teacher candidates' reflections categorized by Kember et al.'s (2008) four levels of reflection. Additionally, Figure 6 presents the overall distribution of reflection levels among Teacher candidates, offering further insight into the dominant patterns in their engagement with reflective thinking.

Table 5

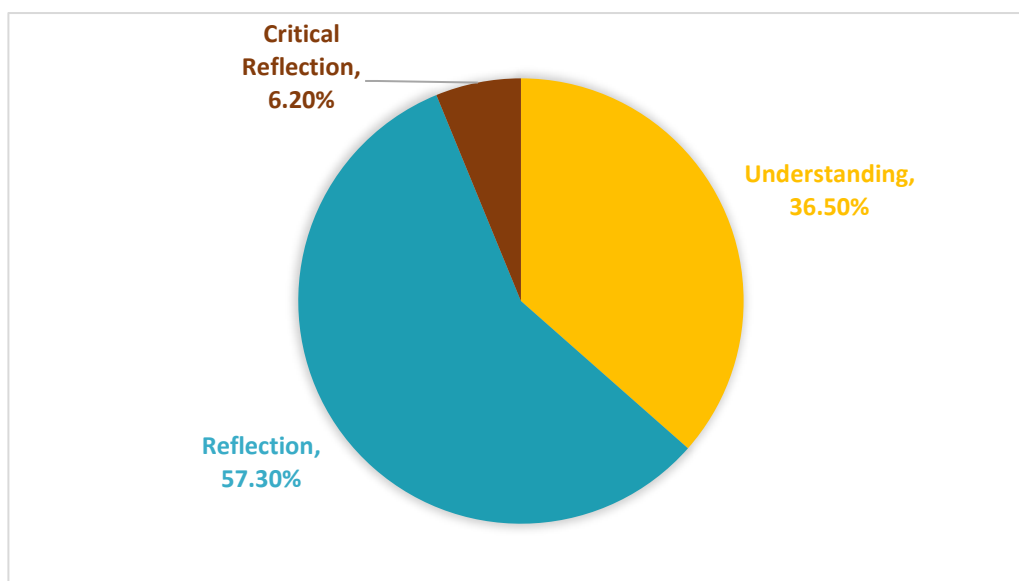
Distribution of Teacher Candidates' Reflections across Kember's Levels of Reflection

Reflection Level	Non-reflection (Habitual Action)	Understanding	Reflection	Critical Reflection
Alex	0%	66.70%	33.30%	0%
Taylor	0%	39.50%	55.80%	4.70%
Riley	0%	17.90%	78.60%	3.60%
Adrian	0%	28.60%	71.40%	0%
Dylan	0%	47.40%	47.40%	5.30%
Morgan	0%	31.60%	60.50%	7.90%
Cameron	0%	37.50%	43.80%	18.80%
Jordan	0%	22.20%	66.70%	11.10%

Reflection Level	Non-reflection (Habitual Action)	Understanding	Reflection	Critical Reflection
Total	0%	36.50%	57.30%	6.20%

Figure 6

Overall Distribution of Reflection Levels Among Teacher Candidates



Level 1: Habitual Action/Non-reflection

According to Kember et al. (2008), the first level of reflection, habitual action, is characterized by recounting events or actions without engaging in analysis or reflection on their implications. At this level, teacher candidates often describe what happened in the classroom or during their school practicum without considering why certain methods were used, how they impacted student learning, or what could be improved. Put differently, teacher candidates reflections at this level tend to be procedural, focusing on following steps or completing tasks without questioning or evaluating their actions. At this stage, teacher candidates generally focus

on carrying out tasks rather than engaging in deeper thinking about their teaching practices. As shown in Figure 6 above, no meaning units in teacher candidates' written reflections were coded as non-reflective. I could not categorize segments as purely habitual actions. In fact, non-reflection (habitual action) consistently appeared as a foundational element across all higher levels of reflection. While teacher candidates may have included procedural descriptions in almost all portions of their reflections, these sections often served as the starting point for more in-depth thinking. In many cases, meaning units began with recounting events and then evolved into deeper insights, acting as a bridge to more critical thought. This complexity created challenges during the coding process, as reflections frequently flowed between different levels of reflection within a single entry.

During the analysis of teacher candidates' written reflections, it was often difficult to assign a definitive code to each meaning unit, as many reflections included more than one level according to Kember et al.'s (2008) framework. Reflections commonly started at a lower level, such as non-reflection (habitual action), and then progressed to higher levels like understanding, reflection, and sometimes critical reflection. These interconnected levels made coding complex, as meaning units often did not fit neatly into a single category.

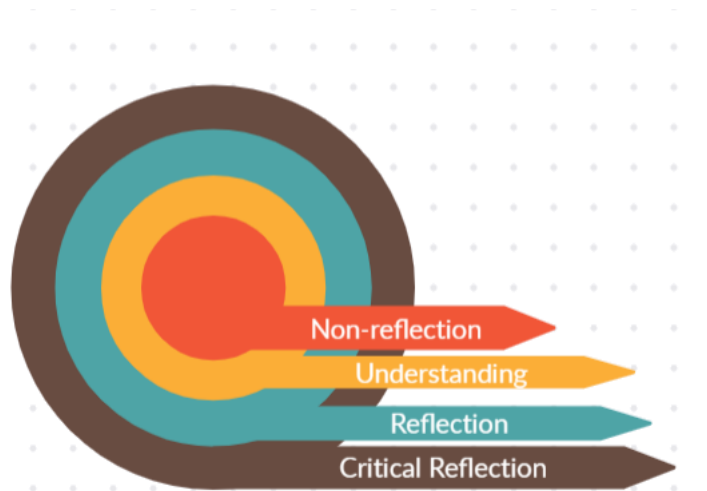
These connections between levels could be conceptualized as patterns, where reflections flowed from a descriptive recounting of events toward deeper, more analytical thinking. Almost all entries included some element of non-reflection (level 1), where Teacher candidates merely described events or recalled experiences without further evaluation. However, they often progressed to show a higher level of reflection, whether through 'understanding', 'reflection', or 'critical reflection'.

This recurring progression within the reflections formed what I termed 'patterns of dominant flow', where reflections typically started at non-reflection before evolving into higher levels (see, among others, Kolb, 1984; Mezirow, 1991; Schön, 1983). I observed that this dominant flow was present across nearly all reflections. The teacher candidates first recounted classroom events or procedures and then moved toward a more thoughtful engagement with their teaching practice, often culminating in deeper insights and reflective thinking.

To illustrate this flow, I developed the concentric circles diagram shown in Figure 7. The diagram visually represents the dominant flow of reflection levels. At the center of the diagram is 'non-reflection' (habitual action), which was the most commonly found level in all Teacher candidates' written reflections. This foundational level forms the core because it was the starting point for most reflections. As reflections moved outward, they demonstrated 'understanding' of teaching practices, followed by 'reflection', where Teacher candidates evaluated the effectiveness of their strategies, and in some cases, they reached 'critical reflection', where they questioned underlying assumptions and demonstrated a shift in their teaching philosophy.

Figure 7

Dominant Flow of Reflection Levels in Teacher Candidates' Written Reflections



The concentric circles show how all reflections, regardless of their eventual depth, are grounded in habitual action but progress outward to more reflective and critical levels of thinking. This visualization helps to conceptualize the flow of reflection and the dominant patterns present across the Teacher candidates' written reflections, underscoring the dynamic nature of reflective practice as described by Kember et al. (2008).

This analysis highlights that while non-reflection serves as a foundation, it often acts as a stepping stone for teacher candidates to engage in more meaningful, reflective learning as they progress in their teaching practice. The dominant flow of reflection levels underscores the evolution of reflective thinking as a fluid process that begins with descriptive recall and deepens into critical analysis.

Level 2: Understanding

Reflections coded at the 'understanding' level in Kember et al.'s (2008) framework demonstrate a surface-level grasp of teaching concepts but do not yet apply deeper analysis or personal insights. At this stage, Teacher candidates typically show that they understand a concept or teaching method, often drawing on theoretical knowledge or practices from their coursework, but without critically evaluating its impact on their classroom experience. Here, teacher candidates are in the early stages of acting within their roles as educators, applying routines and concepts they have learned, but not yet fully evaluating or adapting these actions.

Reflections at this level were coded when teacher candidates described teaching strategies or principles and showed awareness of their purpose but stopped short of analyzing how these methods influenced student outcomes or questioning their effectiveness. In most cases, teacher candidates acknowledged what happened and why certain approaches were used, but their reflections lacked deeper engagement with how this knowledge could be applied or

adapted in practice. Here, teacher candidates carry out learned practices without yet reaching a point of modification or critical reflection.

Key features of the ‘understanding’ level in Kember et al.'s (2008) framework included:

- Recognition of theory or concepts: Teacher candidates accurately referenced teaching principles but did not link them directly to their personal teaching experiences;
- Application of knowledge: Teacher candidates demonstrated an understanding of classroom routines or methods but without evaluating their impact; and
- Absence of (critical) evaluation: Teacher candidates described processes or strategies without questioning their effectiveness or exploring alternative approaches.

This level of reflection provided evidence that teacher candidates were developing foundational knowledge of teaching concepts but were not yet engaging in the more complex analysis that would characterize reflection or critical reflection. The mean percentage of reflections at this level is 36.50%. This indicates that, on average, about one-third of the reflections demonstrate an understanding of concepts without deeper engagement or analysis.

My initial impression while coding the segments at the ‘understanding’ level was that teacher candidates were primarily trying to grasp and articulate their awareness of teaching strategies and theoretical concepts, demonstrating a basic recognition of their importance without yet engaging in deeper analysis or critical evaluation of their classroom practices. The phrases that were commonly used by Teacher candidates at this level included ‘I know that,’ ‘I also need to,’ ‘I think it will be important to,’ ‘was useful for,’ ‘I plan to do more.’ These phrases reflect surface-level comprehension, consistent with teacher candidates operating within the *Doing the Action* framework, where they are actively engaging in teaching but have yet to move towards critically questioning their actions or outcomes.

At the ‘understanding’ level of reflection, teacher candidates commonly reflected on several key areas related to their classroom experiences and teaching practices. The reflections at this level often focused on practical observations and basic awareness of teaching strategies, without delving into critical evaluation or deeper insights. For example, in the following extract, Taylor reflects on the success of her lesson, noting the effectiveness of using projected examples in art lessons to maintain student focus, saying:

The art lesson I taught today was very successful. I provided the students with an example I made beforehand, as well as projected photos on the whiteboard of the step-by-step process while I made it. I will continue to do this for the next art classes.

In this entry, Taylor describes the success of the art lesson and identifies a specific strategy (providing an example and projecting step-by-step photos). However, there is no deeper evaluation of why the strategy worked well or how it affected student learning. The reflection remains at the level of describing what happened and deciding to continue using the same approach without critical engagement. The frequent use of the pronoun ‘I’ in Taylor’s reflection suggests a focus on herself and her actions rather than a broader analysis of the students’ learning or classroom dynamics. This self-centered focus implies that Taylor is primarily reflecting on her own performance rather than engaging deeply with how her actions impacted her students’ learning experiences. For example, the statement “I provided the students with an example” emphasizes her role as the instructor, but does not explore how this approach affected student understanding or engagement.

Teacher candidates not only reflect on their successes, but also on the challenges they face in everyday school experiences and with their students. An example of this can be seen in Riley’s reflection on a lesson involving the use of a video in class. She writes:

Today the students watched the videos related to Abraham's story. The videos are on Youtube, and my AT showed me an extension I could add to my Google browser to stop ads from playing during the videos (adblock for YouTube). During P3, there was a guy outside fixing a part of our window (this distracted the students, and they kept looking over). Therefore, I stopped the video and explained to them what was going on, with their questions answered, the students returned their attention to the video.

While Riley demonstrates practical awareness in managing distractions and ensuring the smooth delivery of the lesson, the reflection lacks a deeper engagement with how these actions influenced student learning. The reflection remains procedural, focusing on logistics rather than delving into how students interacted with the video or how the lesson could be improved to better engage them. Riley focuses on the technical aspects of classroom management—such as using an 'ad blocker' and addressing a distraction outside the window—demonstrating her understanding of the need to maintain student attention. However, the reflection does not move beyond a surface-level recounting of events to critically evaluate how the students engaged with the video content or how the lesson could have been improved to foster deeper learning. This is characteristic of the Understanding level of reflection, where teacher candidates recognize the importance of certain actions but stop short of analyzing their broader implications for teaching and learning. Additionally, Riley's quick response to both the external distraction and the technical issue of YouTube ads suggests that she is adaptive and responsive to the classroom environment. However, this responsiveness is not extended to the students' learning experience, which suggests that Riley may be a practical teacher, concerned with the smooth running of the lesson and focused on solving immediate problems. This shows attentiveness to technical details and a proactive approach to classroom management. While Riley's reflection demonstrates

effective classroom management and problem-solving skills, it lacks critical engagement with the educational content of the lesson and the student learning outcomes.

Similarly, Dylan reflects on the logistical challenges related to the practicum schedule rather than engaging with the impact of this scheduling issue on student learning or teaching effectiveness as demonstrated in this extract:

The Wednesday schedule is awkward at best. It is not well received by my AT or principal as it is incredibly difficult to adapt an elementary schedule to a one-day-a-week visit from a teacher candidate. I am a very flexible person and have an AT who is also very open and flexible, so we are making it work. Overall, I think it is a terrible way to integrate us into the class and it does not seem to serve any positive purpose.

This entry demonstrates Dylan's awareness and understanding of the structural challenges that affect teaching. However, there is no consideration of how his teaching has been affected, how he might adapt his teaching to overcome this challenge, or how the situation could be improved. While he mentions that both he and their AT are flexible, he does not provide any specific examples of how they are adapting their teaching to meet the challenges posed by the schedule. Furthermore, this description indicates a degree of self-awareness about his own strengths as a teacher. However, this self-awareness could be deepened by reflecting on how to further adapt teaching strategies to improve student engagement or learning outcomes in a constrained schedule. This extract demonstrates the 'understanding' level according to Kember et al.'s (2008) framework since it remains focused on external factors and does not delve into potential solutions or adjustments to teaching strategies.

Another example that demonstrates the 'understanding' level of reflection is this extract from Alex reflecting on student engagement:

Making art mittens was the first activity that I did with the grade two students. I would say this was one of my favorite activities because students were able to follow the steps and were excited to hang their mittens on the window. Although it was my first activity and had multiple steps, I enjoyed doing it with the students. When the students finished making their mittens, they were very excited to see the reflection of the sun running through their mittens.

In this reflection, Alex describes a successful art activity with grade two students, focusing on the positive response from the students and their engagement with the task. While this reflection demonstrates some awareness of student reactions and participation, it remains descriptive and surface-level rather than critically reflective. Alex reflects on the steps of the activity and the enjoyment it brought, but there is little analysis of the teaching strategies or the learning outcomes beyond the students' excitement. She recognized that the students were able to follow the steps of the activity and were excited about their work. This shows an understanding of the students' enthusiasm and engagement, which is an important aspect of teaching. Additionally, she expresses personal enjoyment and satisfaction with the activity, suggesting a positive attitude toward teaching and an emotional connection to student success, which is valuable in fostering a supportive learning environment. Nonetheless, there is no critical reflection on why it worked well or how it could be improved. For instance, there is no discussion about whether all students found the activity easy to follow or how it supported their learning beyond their excitement. The reflection is primarily a description of what happened during the activity, with little evaluation of the teaching methods used or the learning objectives achieved. The reflection could be deeper by considering how the activity contributed to the students' development in areas such as fine motor skills, creativity, or collaboration. Alex could have explored whether the students encountered

any challenges and how they were addressed. My impression about Alex as a teacher is that she clearly enjoys seeing students engaged and excited, showing that she prioritizes student enjoyment and participation in learning activities. This demonstrates an emotional investment in the students' experiences. Her reflection also indicates that she is enthusiastic about teaching and is willing to reflect on her experiences, even though the depth of reflection could be enhanced with more critical engagement.

Another prevalent theme in the teacher candidates' reflections at the 'understanding' level is the basic observations of classroom activities, where they described the tasks and projects their students were engaged in, often recognizing the sequence of learning but not critically analyzing the teaching strategies or student learning outcomes. Teacher candidates typically focus on the procedural aspects of teaching and the completion of tasks rather than exploring student understanding or reflecting on potential areas for improvement. In this reflection, Jordan shows an awareness of the content and activities being delivered, but lacks deeper engagement with how these activities impacted student learning or why certain strategies were used:

Grade 5A students are currently studying the impact of natural forces on structures in both natural and built environments in their science class. They recently completed a project focused on building earthquake-proof structures, and here are some pictures showcasing their buildings. The upcoming project involves researching various natural forces and their effects on structures in built environments.

In this excerpt, Jordan describes a science project, providing a summary of the students' activities and the upcoming projects. The reflection is primarily descriptive, focused on the tasks completed and those that are planned, without critically engaging with the teaching strategies or the student learning outcomes related to the project. Jordan demonstrates an understanding of the

topic being studied—natural forces and their effects on structures—indicating a basic grasp of the subject matter. The reflection provides a clear summary of the current project and what is coming next (research on natural forces), which shows an understanding of the sequence of learning activities. Jordan does not reflect on how well the students understood the concept of natural forces or the effectiveness of the earthquake-proof building activity in enhancing student learning. There is no consideration of whether the students engaged meaningfully with the project or if the teaching methods were effective. In this entry, Jordan focuses on task completion rather than learning. Her reflection emphasizes what the students did (building structures, preparing for a research project) but does not explore what the students learned from these tasks. There is no mention of student engagement, challenges, or successes in understanding the concepts. However, Jordan’s reflection indicates that she is organized and aware of the progression of the project, demonstrating a task-oriented approach to teaching. Additionally, Jordan’s involvement in the project shows an interest in hands-on learning and student-driven activities, which suggests that she values interactive learning experiences. This reflection is categorized as ‘understanding’ because it focuses on ‘what’ was done (the project) but does not critically reflect on ‘why’ the tasks were effective or ‘how’ the students’ understanding of the material developed. Put differently, Jordan demonstrates basic awareness of the project’s progression but does not engage in deeper analysis of student learning or teaching strategies.

Throughout teacher candidates’ reflections, they showed awareness of student needs and classroom management dynamics. This is evident in Adrian’s reflection:

This week I continued with my math lesson on the measurement unit. Today we talked about the difference between standard units and non-standard units. I’ve realized that my

students need more practice with how to measure and how to correctly measure. As for classroom management, I know my students are starting to get used to me being part of the class and see me as a second teacher.

In this reflection, Adrian demonstrates an understanding of both the content being taught and classroom management dynamics, with a focus on students' learning needs in the measurement unit. Adrian recognizes that the students require more practice in measurement, showing an awareness of the gaps in their understanding. This suggests that Adrian is beginning to assess student learning and adjust teaching accordingly. However, the reflection remains at a surface level without further exploration of how to address these challenges. It focuses on 'what' was taught—the difference between standard and non-standard units—but does not engage with 'how' effectively the students understood the lesson. There is no critical reflection on how to improve the teaching strategies or what specific methods could be employed to help students better grasp measurement concepts. Additionally, Adrian acknowledges a growing rapport with the students and 'notes' that they are starting to see him as a second teacher, which highlights an awareness of the importance of building relationships and authority in the classroom. As a teacher, in this entry, Adrian demonstrates an ability to 'observe' student needs and reflect on areas for improvement, showing that he is attentive to both content delivery and classroom dynamics. His mention of students getting used to him as a second teacher reflects a developing classroom presence and growing confidence in managing the class. However, Adrian does not go beyond a surface-level acknowledgment of these areas. The reflection lacks deeper engagement with how to improve the teaching strategies or classroom dynamics and remains focused on 'identifying the issue' rather than proposing solutions or critically evaluating the impact of the lesson.

Similar to Adrian's recognition of student needs and managing classroom dynamics, Morgan shows a comparable understanding:

We had an amazing day today. The day started with French and then I did drama games which went kind of smooth (I did not do the slides and left them for a day for the AT to be there to observe my teaching). Then we did two number talk games and that was engaging too. The divisibility Bingo was not that bad, it took them a while to cut out the numbers and write the numbers, but for the last 20 minutes they were all on task.

In this reflection, Morgan recounts a day of teaching, noting that students were engaged and on task by the end of the session. She highlights that students were engaged during the number talk games and the divisibility bingo activity, showing an awareness of student participation and engagement. Nonetheless, there is no reflection on 'how well' the students understood the concepts of divisibility, the learning outcomes of the drama games, or whether the students met the lesson objectives. Morgan also notes that while it took students a while to cut out the numbers, they were on task by the end of the activity. This suggests an awareness of time management and the need to keep students focused during more hands-on tasks. However, she did not reflect on why it took students time to get on task during the Bingo activity and what could be done differently next time to further enhance engagement and learning. The reflection shows some awareness of student needs and classroom management, but it remains at a descriptive level without deeper analysis of the learning process or teaching strategies. That said, the focus on student engagement and task completion suggests that Morgan is attentive to student behavior and participation, which indicates a student-centered approach to teaching. Morgan's reflection is categorized as 'understanding' because it focuses on student engagement and classroom management without delving into the deeper 'educational outcomes' of the activities.

There is an acknowledgment of the flow of the lesson and task management, but no critical analysis of teaching methods or student comprehension.

To conclude, the ‘understanding’ level of reflection, as demonstrated by the participants in this study, underscores their growing awareness of classroom management and student engagement, yet remains focused primarily on the procedural aspects of teaching. With a mean percentage of 36.50% of reflections categorized at this level, it is clear that Teacher candidates are frequently reflecting at this stage, recognizing student needs such as the requirement for more practice or better engagement. They also show an understanding of how their teaching approaches influence the classroom environment. However, these reflections often stop short of critically evaluating teaching strategies or exploring deeper insights into how to improve student learning. Instead, teacher candidates tend to describe the flow of lessons and their effectiveness in managing the classroom, while missing opportunities to critically reflect on why certain activities worked or how their teaching could evolve. While this level represents a significant step toward becoming reflective practitioners, it highlights the need for teacher candidates to move beyond descriptive understanding and toward more critical, evaluative reflection in order to refine their teaching practices further.

Level 3: Reflection

In the ‘reflection’ level of teacher candidates’ written reflections, deeper critical engagement with their teaching practices became apparent, with 57.30% of the coded segments falling under this category. At this level, Teacher candidates moved beyond procedural recounts and surface-level observations to critically assess their experiences and identify areas for improvement.

Key features of the Reflection level in Kember et al.'s (2008) framework included:

- Evaluative approach to teaching experiences, where individuals assess and reconsider their practices.
- Reflection goes beyond description, connecting classroom experiences to prior knowledge and theory.
- Awareness of the effects of teaching on student learning.
- Proposing changes for future practice based on reflective thinking.
- Engaging in problem-solving to address classroom challenges.
- Adjusting teaching strategies to better meet student needs.
- Recognizing areas for professional and personal growth.

At this level of reflection, teacher candidates demonstrated active engagement in their practices by reflecting on critical aspects of teaching and learning. They focused on strategies such as applying the curriculum, integrating theoretical knowledge into classroom practices, and evaluating the effectiveness of their teaching methods. This active consideration illustrates how they moved beyond passive engagement, showing a commitment to improving both their instructional approaches and student outcomes. Additionally, teacher candidates reflected on classroom management challenges, including time management and balancing diverse student needs. These reflections highlight how their practical actions involved not only instructional techniques but also navigating the dynamic and complex interactions within the classroom. This process underscores the importance of reflection as a tool for continuous professional growth and adaptive teaching.

Teacher candidates further explored differentiation and inclusive practices, emphasizing how they adapted their teaching strategies to address diverse student needs. This adaptability

highlights a critical element of their reflective process, showcasing their capacity for problem-solving in response to specific classroom challenges. Additionally, they reflected on their professional and personal growth, delving into their evolving identities as educators and the role of collaboration with colleagues in shaping their practices. This reflects the transformative nature of their reflective engagement, where teaching is not only an act of doing but also a process of continuous growth and refinement informed by their experiences and reflections.

These areas illustrate the depth of reflection at this stage, as teacher candidates transitioned from merely describing their teaching to analyzing their practices and considering strategies for enhancing their professional growth and classroom effectiveness. With more than half of reflections coded at this level, it is evident that this stage of reflection represents a significant portion of teacher candidates' written reflections. Their engagement with *Doing the Action* highlights the evolving nature of their teaching practices, as they increasingly take responsibility for their actions and seek ways to improve.

In the following sections, I present the detailed findings for the 'reflection' level, showcasing specific examples of teacher candidates' reflections that illustrate their growth, awareness of student needs, and development in teaching practices, while also examining how each of these reflections align with the characteristics of the 'reflection' level.

In the following extract, Riley demonstrates a deeper understanding of student engagement and the impact of her teaching on fostering a more immersive learning environment in her French class (FSL):

Today went great, I went into detail on how/when I will be doing the first touchpoint for this unit. The students were engaged and asked intelligent questions. A huge win today is that the whole class started speaking French without me prompting them to do so! This is

unheard of in FSL. Also, at the end of class they were asking me (appropriate) questions about myself (IN FRENCH!) which created an organic and meaningful discussion with the whole class, it was great.

Here, the success of the lesson is not only described in terms of participation but also in the unexpected achievement of students speaking French without prompting, an important milestone in a French as a Second Language (FSL) classroom. Riley's recognition of this as a "huge win" shows her ability to reflect on student progress and language acquisition in an authentic and meaningful way. Riley reflects on the effectiveness of her touchpoint explanation and classroom management, noting that it led to increased student engagement and a significant achievement—spontaneous use of French by the students. Riley not only describes the students' participation but also notes that they asked "intelligent questions" and engaged in an "organic discussion," which reflects her growing awareness of how to foster a student-centered learning environment. While Riley does not explicitly propose future changes, I believe that her recognition of the students' spontaneous language use implies a desire to build on this success and continue supporting this level of student independence. Riley's reflection clearly fits within the 'reflection' level, as she not only celebrates a milestone in student language use but also shows thoughtful consideration of how her teaching contributed to this achievement. Her reflection on student engagement and behavior shows a deepening awareness of the impact of teaching on student growth, moving beyond a simple recount of the lesson to a reflective analysis of 'why' it was successful and how it can be further cultivated.

In their efforts to make sense of their teaching experiences, it is natural for teacher candidates to engage in a reflective process that influences how they perceive and respond to the challenges they encounter in the classroom. While reading and analyzing their written

reflections, I realized that, through reflection, teacher candidates begin to assess their teaching methods, identify areas for improvement, and develop a deeper understanding of their role as educators. For example, Adrian demonstrates an emerging ability to evaluate his teaching and the effectiveness of his lesson:

Today I taught my first lesson in math to a grade 4 class. I taught them the basics about measurement, but I didn't feel they grasped the whole concept. I think it will be important to analyze my lesson and see what went well and what I need to work on for next time. I am learning that it is okay if I have to go back and reteach them a topic that wasn't understood. It is a reflection on me that the whole class doesn't understand and know that everyone learning differently helps when I am planning for the future. For the future, I have learned that I need to start lower and work my way up to grade-level tasks.

By acknowledging that the students did not fully grasp the concept of measurement and identifying the need for reteaching certain topics, Adrian shows a willingness to engage in self-assessment and take responsibility for student understanding. This reflection goes beyond merely recounting the lesson, as Adrian reflects on how to adjust his teaching approach for future success. Put differently, Adrian recognizes that his lesson on measurement was not fully effective, prompting him to consider how to improve the delivery and content in future lessons. This shows a deeper level of reflection on why the students struggled and what can be done to address their learning needs. Additionally, he acknowledges that students learn differently and reflects on the need to adapt his teaching to meet the diverse needs of his class. This consideration of differentiation is important in moving toward more student-centered instruction.

Further, Adrian identifies a specific plan for improvement—starting with simpler concepts and working up to grade-level tasks. This forward-thinking approach shows reflective

thinking about how to scaffold learning more effectively. Adrian's reflection is particularly insightful because it demonstrates a shift from 'reactive' to 'proactive' thinking about teaching. Rather than simply recognizing that the students did not understand the lesson, Adrian reflects on how to adjust his strategy in future lessons. His reflection on the importance of differentiation shows a growing understanding of how to meet the diverse needs of students in his classroom. This reflection fits firmly within the 'reflection' level as Adrian not only evaluates the shortcomings of his lesson but also identifies concrete steps to improve his teaching. His willingness to acknowledge what did not work and propose a plan for future success is key to reflective practice and demonstrates a deepening understanding of the relationship between teaching methods and student learning outcomes.

A key theme that emerged across reflections was adaptability, where teacher candidates frequently reflected on how they modified their approaches in response to student needs or unforeseen challenges. This adaptability often involved real-time changes to lesson plans, classroom management strategies, or instructional methods, demonstrating their growing awareness of the importance of flexibility in teaching to enhance student engagement and learning outcomes. For instance, Taylor reflects on adjusting her approach in real-time to maintain student engagement:

My students arrived to our science lesson on Friday very restless, and still upset from something that happened at recess. I was responsive to their needs, and adjusted my lesson to include lots of structured hands-on and up-out-of the seat activities. We were learning about friction, and I had the students try to push me sitting in a chair (and compare that to different surfaces). The lesson was a hit, and I am glad that I was responsive to their energy instead of sticking with my lesson plan.

In this entry, Taylor demonstrates reflective adaptability by adjusting her science lesson to better meet her students' emotional and physical needs. Taylor's decision to adjust the lesson plan based on her observation of the students' emotional state shows a high level of reflective thinking. Instead of rigidly sticking to the original plan, she modified her approach to include interactive and movement-based activities, which better suited the students' needs at the moment. Additionally, Taylor notes that the hands-on lesson on friction was a success and that the students responded well to the interactive nature of the activity. This reflection highlights her awareness of the link between physical activity and student engagement, as well as the need to be flexible in her teaching approach to maintain focus and learning. Furthermore, Taylor's reflection shows problem-solving skills in action, as she quickly identified a potential barrier to learning (students being upset from recess) and adapted her lesson to mitigate the impact. This proactive approach demonstrates Taylor's ability to reflect on classroom situations and make real-time adjustments to improve the learning environment. Her ability to read the room and adjust the lesson plan demonstrates reflective practice aimed at improving student engagement and learning outcomes. By focusing on hands-on activities to suit the students' emotional state, Taylor shows an understanding of how to balance content delivery with classroom dynamics, a key aspect of effective teaching. This reflection clearly aligns with the 'reflection' level, as Taylor not only recognizes the need for adjusting her lesson plan based on student needs but also reflects on the positive outcomes of her adaptation.

Similar to Taylor, Cameron reflects on student engagement but this time through a reading follow-up activity that allowed students to engage meaningfully with the story:

Read Aloud Follow-up Activity - *The Kindest Red*: As a class, we created a word bank on the whiteboard of different types of worlds we want (such as the one Ms. Ramirez

from the story did with her class). Students would then take the 'my world' template and draw what their world would look like and write out what it is called, i.e., Jack here chose to draw a 'kind' world.

In this extract, Cameron evaluates how students engaged with the story's message and creatively expressed their own ideas about the kind of world they wanted to create, such as Jack's "kind world." Students created their own "world" based on the themes in *The Kindest Red*. This reflection goes beyond description by evaluating how the activity allowed students to internalize values such as kindness, inclusion, and empathy, as presented in the story. By engaging students in creative expression and encouraging them to reflect on the themes of the story, Cameron recognizes the positive impact of the activity on student engagement and values-based learning. This fits within the 'reflection' level, as Cameron evaluates the effectiveness of the activity in fostering creativity and reinforcing the story's message, demonstrating thoughtful consideration of how students connected with the themes of kindness and helping others. Rather than simply describing the classroom event, Cameron is reflecting on why the activity worked and how it helped students connect with the material, which is characteristic of the 'reflection level. She considers the effectiveness of her teaching strategy and its impact on student engagement and learning, demonstrating deeper thinking about the purpose and outcomes of the lesson.

Building on their reflections about adaptability and adjustments in teaching practices, many teacher candidates also reflected on the importance of fostering inclusive practices in the classroom. A significant focus within these reflections was on encouraging cultural diversity and identity exploration, where teacher candidates made intentional efforts to create learning environments that celebrated and supported the diverse backgrounds of their students. These

reflections highlight the teacher candidates' growing awareness of the need to address individual learning needs and promote equity and inclusion in their teaching. For example, in this extract, Jordan reflects on her use of hands-on activities to promote collaboration, creativity, and cultural exploration among her students:

Utilizing hands-on activities, such as creating art pieces with loose-part materials, I encouraged collaboration and creativity among students. These activities provided a platform for students to explore cultural diversity and reflect on their identities. Feedback from my mentor highlighted the effectiveness of strategies such as Picture Walk and Think-Pair-Share, while also emphasizing the importance of clarity and co-creation of examples in instruction.

By incorporating art pieces with loose-part materials, Jordan creates opportunities for students to engage with diverse cultural identities and reflect on their own. This shows a deep understanding of the role that culturally responsive teaching plays in promoting inclusive education. Jordan's reflection also emphasizes the importance of inclusive teaching strategies, such as 'Picture Walk' and 'Think-Pair-Share', which are designed to support student participation and foster collaborative learning. Jordan's reflection on the inclusive nature of her teaching practices demonstrates her commitment to creating a culturally responsive classroom. Her focus on using hands-on activities to encourage identity exploration and cultural diversity reflects an awareness of how important it is for students to see their backgrounds represented in the classroom. The use of collaborative learning strategies further emphasizes her effort to ensure that all students are actively engaged and able to contribute to their learning experience. This extract aligns with the 'reflection' level as Jordan evaluates her inclusive teaching practices and reflects on the impact of using culturally responsive activities to promote student collaboration and creativity. Her

reflection demonstrates a thoughtful consideration of how to create an inclusive environment that supports cultural diversity and fosters student engagement.

In another instance, Morgan reflects on her experience working one-on-one with a new Farsi-speaking student, demonstrating a strong commitment to inclusive teaching practices:

Working one-on-one with Arshida, a new Farsi-speaking student. The strategies I used included speaking only one word in Farsi, with the rest in English. I focused on seeing the positive and her interests, encouraging her that way. I got her moving around the class and acting out useful vocabulary and instructions in the classroom. I also used teacher typing methods and hand gestures, such as pointing or bringing my hand to my mouth. For division and long division, I built on what she already knew and asked inquiry-based questions.

This reflection showcases Morgan's effort to adapt her teaching to meet the individual needs of a student from a diverse linguistic background. emphasizes her awareness of the need to provide personalized support to students who may face language barriers. Her approach to using simple Farsi vocabulary alongside English shows her effort to bridge the language gap while encouraging Arshida's learning. Morgan reflects on her use of kinesthetic activities, such as moving around the class and acting out vocabulary, as a way to engage Arshida and make the learning process more interactive. This is an example of differentiation, where teaching strategies are adjusted to meet the needs of English language learners. Morgan demonstrates a culturally responsive approach by acknowledging and working with Arshida's linguistic needs while encouraging her to participate in class. This reflection shows an understanding of how to create an inclusive learning environment that supports multilingual students and values their contributions. This reflection fits within the 'reflection' level as Morgan carefully considers how

to support the individual learning needs of a non-English speaking student and adapts her teaching strategies accordingly. Her reflection shows a commitment to inclusive teaching by recognizing the need for differentiation and active engagement to promote language learning and student participation. Morgan's approach to fostering a welcoming environment for diverse learners is an essential part of reflective teaching.

Another prominent theme that emerged in the teacher candidates' written reflections was professional and personal growth, often intertwined with their experiences in collaborative teaching. Many teacher candidates reflected on their evolving identity as educators, acknowledging how working alongside mentors, colleagues, and students contributed to their growth. These reflections not only emphasized the challenges they faced and the lessons they learned but also the impact of collaborative efforts in the classroom. Through both self-assessment and collaboration, teacher candidates demonstrated an increasing awareness of how teamwork, along with continuous self-improvement, plays a crucial role in their development as effective teachers. This can be seen in Alex's reflection on her first experience teaching a math number talk for grade two, highlighting the collaborative nature of her teaching experience with her associate teacher (AT):

... It was the first math number talk I taught, however, I observed the teaching technique strategies my associate teacher used and implemented that into my presentation. It was my first lesson to present and my associate teacher was able to provide a variety of different ways to improve for the next number talk. In addition, her first feedback was based on making seating arrangements for the students who sat in front of the screen. Also, I would have to ensure that all the students can see the screen by standing beside it. In addition, as I am taking over the math talks every Wednesday, I learned that teaching

math is not an easy process. Therefore, as a teacher, I believe learning is a process and as a teacher, it is important to adopt positive behavior toward learning.

Here, Alex reflects on how her associate teacher (AT) provided her with guidance and constructive feedback, showing how collaborative teaching can support professional growth. She acknowledges the mentorship she received and how it helped her refine her teaching strategies.

Alex also highlights her own learning process, recognizing that teaching math is challenging and that feedback is critical to improvement. Her willingness to adapt and grow based on her AT's feedback demonstrates a reflective approach to professional development. Furthermore, the reflection includes a thoughtful evaluation of how to improve classroom management by adjusting student seating and ensuring the visibility of the screen for all students. This shows a reflective understanding of how classroom logistics can impact student engagement and learning. This entry also demonstrates Alex's understanding of the importance of collaboration in the teaching profession and her commitment to continuous improvement. Alex's reflection also highlights how teachers can continually refine their practices through collaboration and observation. Her openness to receiving feedback and making changes based on her AT's suggestions shows a growth mindset and a reflective approach to teaching. This reflection fits well within the 'reflection' level as Alex evaluates her teaching strategies, reflects on her collaborative relationship with her AT, and demonstrates a commitment to personal and professional growth. Her reflection on how collaborative teaching has positively influenced her development underscores the significance of peer support and mentorship in the teaching profession.

Similarly, Dylan's reflective entry below demonstrates an increasing awareness of his evolving identity as an educator, reflecting on the continuous learning and self-improvement necessary to succeed in the teaching profession:

I really enjoy Social Studies, Arts and Science and loved getting to teach them in conjunction with Language and Math last year. However, I have enjoyed gaining more experience in math this year as it is a subject I struggled a lot with as a student. My class has been focusing on long division which is something I wouldn't have said I was very good at. I've been really enjoying it as it combines so many math skills into one and it is quite amazing to see students go through the process of learning such a valuable skill. I have been working both in full class and small group instruction and have developed my math teaching skills a lot during this block.

In this reflection, Dylan focuses on his personal growth as a teacher, specifically in the area of Math instruction. He reflects on his past struggles with Math and how teaching the subject has led to his personal and professional growth. This shows a deep level of self-awareness as Dylan acknowledges his progress and newfound enjoyment in teaching a subject he once found difficult. Also, his reflection on his ability to teach long division effectively shows that he is reflecting on his teaching practices and actively improving his methods. By recognizing that teaching Math was once a challenge but has now become a positive experience, Dylan demonstrates a growth mindset. He acknowledges the learning process and the importance of improving his teaching abilities in a subject that was not his strength. This reflection illustrates the value of overcoming personal challenges and the satisfaction that comes from seeing students succeed in learning a complex topic. Dylan's reflection fits well within the 'reflection' level as he reflects on his personal growth as a math teacher and acknowledges the development of his

teaching skills. His journey from struggling with Math to becoming confident in teaching long division demonstrates a thoughtful reflection on how teaching can lead to both professional and personal growth. By recognizing his improvement and the positive impact on his students, Dylan exemplifies reflective teaching in action.

Level 4: Critical Reflection

According to Kember et al. (2008), ‘critical reflection’ represents the highest and most transformative level of reflective practice, where individuals not only evaluate their teaching practices but also critically question their underlying assumptions, beliefs, and values. This level involves a deep and thoughtful re-examination of one's teaching, often resulting in a significant shift in perspective or practice. It reflects the deliberate actions teachers take based on critical self-awareness, as they adjust their professional behaviors and question the underlying motivations for their decisions. This process underscores the transformative power of reflection in fostering intentional and meaningful changes in teaching practices.

Key features of the ‘critical reflection’ level in Kember et al.'s (2008) framework include:

- Challenging Assumptions: Critically examining and questioning established norms, practices, or deeply held beliefs.
- Perspective Transformation: A shift in understanding or viewpoint that leads to a new way of thinking about professional or personal practices.
- Commitment to Equity and Inclusion: Analyzing and reflecting on issues related to diversity, social justice, and the creation of equitable environments.
- Integration of Theory and Practice: Making meaningful connections between theoretical frameworks and practical application.

- Personal and Professional Growth: Leading to deeper self-awareness and an ongoing commitment to personal and professional development.
- Impact on Outcomes: Reflecting on how practices affect broader outcomes, such as the impact on others or the success of initiatives.

In the analysis of the teacher candidates' written reflections, 6.20% of the coded meaning units were categorized under the 'critical reflection' level. Despite this relatively low percentage, it is significant to note that 6 out of the 8 participants in this study showed at least slight evidence of engaging in critical reflection. This demonstrates moments where teacher candidates moved beyond describing or understanding classroom events to critically examining their practices and rethinking their teaching approaches. These instances of critical reflection, though infrequent, highlight meaningful moments of deep self-questioning process where teacher candidates critically assess their actions and make substantial changes based on their new understandings.

At the 'critical reflection' level of reflection, teacher candidates commonly reflected on their personal and professional development through critical self-reflection and shifts in teaching philosophy. They also focused on questioning norms and practices to foster an equitable and inclusive learning environment by actively addressing and transforming these concerns in their teaching. Teacher candidates reflected critically on how professional standards shape their practices and how they adapt their teaching to meet these standards while developing expertise. They further highlighted the importance of continuous reflection, encapsulating the recognition of reflection as an ongoing, iterative process for growth and action.

In the following sections, I will present examples where teacher candidates engaged in critical reflection, demonstrating shifts in thinking and challenging assumptions about their teaching, students, and learning environments. Through their reflections, teacher candidates

showcased a transformative commitment to improving their teaching practices and fostering a more inclusive and equitable learning environment.

Cameron's reflection is a clear example of 'critical reflection' in the way she questions traditional practices and reflects on the broader purpose of education:

Now that I am in a grade six classroom there are of course more 'teaching' and formative assessments. Although I do not fully agree with the ways of my AT, it reminds me a great deal of my time in elementary school. My grade six teacher was my most memorable teacher. He started a pen-pal exchange program between my school and the Jewish Community School, allowing students from different religions and backgrounds to see that they are not so different. ... He made a difference in our points of view, allowed us to see it, and he changed our lives. ... What I am seeing in my current class with reference to Language Arts is the same old, write the word 5 times and memorize its spelling. I hope to work more closely with students on different ways to learn how to spell and read. I want to motivate students the way Mr. Mascoe did for his students.

Cameron begins by noting that while her current classroom practices focus on rote learning—such as having students write the same word five times—she critically compares this to her own transformative experiences as a student. This comparison reveals a shift in her perspective: she recognizes the limitations of traditional methods and feels compelled to implement more meaningful and engaging strategies that align with her values. Cameron's recounting of her grade six teacher, Mr. Mascoe, shows a deep reflection on the impact of innovative teaching. Mr. Mascoe's efforts to bridge cultural divides through a pen-pal program between Muslim and Jewish students and by introducing Holocaust survivors to speak about their experiences serve as a model for Cameron. These experiences taught her not only about cultural sensitivity but also

about the power of education to foster critical thinking, empathy, and social justice. Cameron's reflection highlights her desire to emulate these practices in her own teaching by moving beyond surface-level strategies like rote memorization and focusing on methods that help students form their own opinions and engage with the world critically.

Cameron's reflection thus demonstrates several elements of Kember's 'critical reflection' level: she questions the status quo in her classroom, seeks to transform her teaching practices, and reflects on how her own educational experiences have shaped her commitment to social justice and meaningful learning. By recognizing the importance of fostering critical thinking and personal growth in her students, Cameron shows evidence of professional transformation and a deep commitment to improving her teaching. This reflection fits within the 'critical reflection' level as she moves beyond simply evaluating her teaching practices to critically rethinking the role of education in shaping students' lives.

Similarly, in the following extract, Dylan highlights his personal and professional growth, and questions his own assumptions about sports in education:

I had the opportunity to coach the Cross Country and boy's volleyball teams this year with my AT. This was an incredibly valuable teaching experience. It was very heartwarming to see the students giving their all at Cross Country. As an endurance sport, it really is quite incredible to see young students pushing themselves and persevering. ... Coaching sports isn't something I had thought about a lot, but I look forward to more opportunities to participate in school sports in the future! As an elementary student, I was very active in sports, but over time I drifted towards the Arts and moved away from sports, as many people do. ... Learning teamwork and perseverance skills is so important

for young students, and I look forward to facilitating this learning experience through coaching.

Through his experience, Dylan reflects on how coaching has allowed him to learn from his students, particularly in observing their perseverance and effort in endurance sports like Cross Country. His appreciation of these qualities in his students reveals a transformation in perspective about the value of sports and the life skills they help develop, such as teamwork and perseverance. This deeper understanding of the role of sports aligns with the professional standards and responsibilities of teaching, where holistic student development, including physical and social skills, is essential.

Dylan also reflects on his own past assumptions and personal journey with sports. He acknowledges how, as an elementary student, he gradually drifted away from sports, feeling that he had to choose between athletics and the arts. His current reflection, however, demonstrates self-awareness and a shift in understanding, as he now recognizes the importance of sports and physical activity for young students. His adaptive expertise is evident as he embraces the opportunity to engage with sports once again, showing enthusiasm for facilitating learning experiences through coaching in the future. Overall, Dylan's reflection fits within the 'critical reflection' level, as it involves both an evaluation of his teaching practices in coaching and a transformation in perspective regarding the role of sports in education. His reflection also highlights the value of self-reflection and growth, as he reconsiders his own experiences and applies these insights to his current teaching practice.

Jordan reflects on how she transitioned from working in high school to teaching younger students in Grade 3, recognizing the need for flexibility in her teaching approach:

Translating my experiences as a high school teacher and my engagement with play-based learning in kindergarten to grade 3 was a central goal during my practicum. Drawing from Timperley's concept of adaptive expertise, I realized the importance of flexibility in problem-solving and knowledge application. When faced with the absence of my associate teacher on the first day, I embraced the opportunity to take the initiative. Acting as 'The Librarian' during library periods, I engaged students through read-aloud sessions, fostering a love for learning. These experiences allowed me to integrate pedagogical strategies from courses like the PED 3112 Global Education Cohort Course into real classroom settings.

Jordan's reflection demonstrates critical reflection by highlighting her ability to adapt her teaching practice and apply theoretical knowledge to real-world classroom situations, a key aspect of adaptive expertise as described by Helen Timperley. She draws connections between her previous experiences with play-based learning in kindergarten and her goal of applying these strategies effectively in her current practicum. When faced with the unexpected absence of her associate teacher, Jordan took the initiative and acted as the librarian during library periods. This demonstrates her ability to take responsibility and problem-solve independently in a new environment, a significant marker of critical reflection. Rather than being overwhelmed by the situation, she used it as an opportunity to engage the students in read-aloud sessions, fostering a love for learning and contributing to their educational experience.

Jordan's reflection also shows her awareness of how to integrate pedagogical strategies she had learned in her courses into practical classroom settings. Her ability to bridge the gap between theory and practice exemplifies a deeper level of critical reflection, as she evaluates how her formal education has prepared her to handle real-life teaching challenges. This critical

awareness of how to apply theoretical frameworks to teaching situations is a hallmark of reflective practice at the highest level. It is evident that Jordan's reflection emphasizes professional growth, adaptability, and her understanding of how problem-solving in the moment can align with broader pedagogical goals. This situates her reflection firmly within the 'critical reflection' level as she not only acknowledges her learning but also demonstrates a transformation in her teaching practice by applying theoretical knowledge to the dynamic environment of the classroom.

In the following excerpt, Riley questions the assumptions about standard practice:

Touchpoints are going well, most students understand what to do. I decided not to print our rubrics for the students and to tell them their mark and feedback orally instead (I have a doc with their mark and feedback. I chose to do this because I didn't want to print out rubrics that would just be tossed (for the environment). I also feel it is more impactful to have a conversation with students regarding their feedback.

Riley's excerpt demonstrates both reflection and critical reflection. As discussed earlier, the meaning unit is coded for the highest level of reflection. Riley reflects on her decision to provide feedback orally instead of printing rubrics, considering environmental concerns and the belief that oral feedback is more impactful. This evaluation of her approach and the rationale behind it indicates a deeper level of thinking beyond mere description or understanding, aligning with the reflection level. However, Riley also shows critical reflection by questioning standard assessment practices and adapting them to align with her values and goals for student learning. By choosing not to print rubrics and instead providing feedback orally, Riley challenges the traditional approach to assessment. This decision reflects her environmental consciousness and commitment to meaningful student engagement, as she believes that personalized, face-to-face

conversations are more impactful than written feedback alone. Moreover, Riley's approach reflects a deeper understanding of the potential benefits of student-centered feedback. By engaging in discussions with her students about their performance, she not only provides guidance but also fosters an environment of open communication, reinforcing her student-teacher relationships. This critical questioning of traditional methods and her deliberate choice to change the process show how Riley is rethinking standard practices in favor of approaches that align with her values, illustrating her growing adaptive expertise and professional growth. In essence, Riley not only evaluates her teaching practices but also transforms her approach based on her principles and observations, demonstrating a clear shift in perspective.

In their reflections, teacher candidates questioned assumptions for equity. For example, Morgan wrote:

I realized that students do engage in bullying, but they often don't understand the deeper reasons behind their behavior or the ripple effects it can cause. For example, some students were using the N-word, which they had learned from rap music. Others were using derogatory slurs against Chinese people. I also observed that my AT administers time-outs in extreme cases, when necessary.

Again, as in Riley's case above, although this excerpt seems to align with the 'reflection' level in Kember et al.'s framework, Morgan's observation about students learning the N-word from rap music, along with her increasing awareness of social and cultural issues in the classroom and their impact on student behavior, adds a deeper layer of critical reflection. Morgan's recognition that students engage in bullying behaviors, such as using racial slurs (e.g., the N-word learned from rap music and Chinese slurs), indicates that she is critically examining the underlying causes of these actions. This insight reflects a shift from simply addressing surface-level

behavior to understanding the deeper social and cultural dynamics that influence student interactions. Additionally, by acknowledging that the students might not fully comprehend the ripple effect of their words and actions, Morgan is moving beyond a basic reaction to these behaviors. Instead, she is questioning why students might be using these harmful terms and considering the broader implications of their behavior, which demonstrates her critical engagement with issues of cultural sensitivity and equity in the classroom. Moreover, Morgan reflects on her Associate Teacher's use of time-outs in extreme circumstances. Her observation of this classroom management strategy, combined with her own experiences, suggests that she is critically evaluating when and why certain disciplinary practices are appropriate. This consideration of classroom management strategies in response to significant behavioral issues further situates her reflection at the critical level, as she is engaging with how to balance equity, understanding, and discipline in a way that promotes a safer and more inclusive learning environment. On the whole, Morgan's reflection highlights her increasing sensitivity to the complexities of cultural dynamics and her personal growth in addressing difficult social issues, positioning her reflection within the critical reflection level.

In another entry, Taylor not only emphasizes the importance of self-awareness but also engages deeply with the transformative power of reflection in her teaching practice:

One of my biggest takeaways from teachers' college so far is that we as teachers must never stop actively reflecting. This idea is a common thread between Helen Timperley's framework of the 'adaptive expert', the Ontario College of Teachers Standards of Practice, and the University Teacher Education Program's Communities of Inquiry. Reflection is the essential first step for self-awareness, unpacking biases, being adaptive, and creating growth. Throughout my time as a teacher so far, I have diligently dedicated

myself to reflecting regularly. I am also deeply committed to asking the tough questions because reflection must be critical to facilitate true growth.

Taylor's acknowledgment that reflection must involve "asking the tough questions" highlights her understanding that true growth requires an in-depth examination of one's assumptions and biases. This level of self-interrogation aligns with the critical reflection stage of Kember et al.'s framework, where teachers challenge their own beliefs and practices in order to foster meaningful change. Her emphasis on the necessity of critical reflection for professional growth further underscores her dedication to adaptive expertise, as she recognizes the importance of being flexible and responsive to new learning and challenges in her practice.

This reflection not only exemplifies her personal commitment to growth but also illustrates her belief in the collective responsibility of educators to continually improve, unpack biases, and embrace reflective practices as a way to advance in the teaching profession. Taylor's proactive approach to embedding critical reflection into her routine is a strong representation of the 'critical reflection' level, where she goes beyond surface-level reflection to question deeply held assumptions and the professional standards that guide her teaching.

The analysis of teacher candidates' written reflections reveals a multifaceted understanding of their reflective practices, highlighting the interplay between personal growth, professional development, and the challenges of navigating diverse classroom contexts. Their reflections demonstrate a progression from surface-level observations to deeper critical engagement, where they grapple with integrating theoretical knowledge into practical applications and addressing broader educational concerns. These written reflections underscore the importance of fostering meaningful and authentic reflective opportunities within Initial Teacher Education programs, allowing teacher candidates to develop adaptive, inclusive, and

contextually responsive teaching practices. As a key tool for professional learning, written reflections serve not only to document their evolving insights but also to bridge the gap between theory and practice, preparing them for the complexities of real-world teaching.

Concluding Comments

The findings in this chapter highlight the intricate and multifaceted nature of teacher candidates' reflective practices, revealing both their transformative potential and the persistent challenges inherent in engaging deeply with reflection. While written reflections provide a structured avenue for teacher candidates to explore and articulate their teaching experiences, the depth and authenticity of these reflections are often shaped by the context in which they are situated. Factors such as time constraints, performative pressures, and limited feedback from mentors and evaluators point to systemic and structural barriers that can constrain the reflective process. These findings underscore the importance of reimagining reflective practice within teacher education to address these limitations and enhance its impact.

A critical insight from the data is the tension between the performative nature of some reflective assignments and the need for genuine, transformative reflection. When reflections are reduced to compliance-driven tasks tied to assessment, their potential for fostering meaningful professional growth is diminished. This finding calls for a paradigm shift in how reflective tasks are conceptualized and implemented. Instead of emphasizing completion and adherence to prescribed formats, teacher education programs should prioritize reflective practices that encourage deep engagement, critical self-examination, and actionable insights.

Another important observation is the dynamic interplay between personal reflection and social interaction. While teacher candidates often expressed frustration with solitary, written reflections, they highlighted the value of collaborative, dialogue-based reflection. This finding

suggests that reflective practices are not merely individual cognitive activities but are deeply relational and social, benefiting from the collective wisdom of peers, mentors, and educational communities. Programs that integrate opportunities for conversational and embodied reflection can cultivate a richer, more nuanced reflective culture that prepares candidates for the relational complexities of teaching.

Finally, the chapter underscores the need for reflective practices that transcend procedural improvements and engage with broader educational and societal questions. Teacher candidates must be guided to critically examine not only their teaching methods but also the underlying assumptions, biases, and systemic inequities that shape their practices and classrooms. By embedding reflection within a broader framework of social justice and equity, teacher education programs can prepare candidates to become transformative educators who not only adapt to existing realities but also challenge and reshape them.

These insights set the stage for the discussion in the next chapter, where I will delve deeper into the implications of these findings within the broader theoretical and practical contexts. The discussion will critically examine how the emergent themes relate to the conceptual framework outlined earlier in the study, exploring their significance for teacher education and reflective practice. By linking these findings to existing literature and pedagogical principles, the next chapter will provide a comprehensive analysis of how reflective practices can be enhanced and reimaged to better support teacher candidates and advance the field of education.

CHAPTER 6: DISCUSSION

Discovery consists of seeing what everybody has seen and thinking what nobody has thought.

– Albert Szent-Györgyi (1985)

The Bigger Picture: Reflective Practices in Context

In Chapter 5, I presented the findings of my research. In this chapter, I aim to provide a comprehensive discussion that synthesizes these findings in relation to the broader theoretical and practical implications for teacher education. This study is guided by three interrelated research questions that collectively examine how teacher candidates in an Ontario Initial Teacher Education (ITE) program understand, enact, and demonstrate reflective practice. The first question explores candidates' conceptualizations of *reflection*, investigating how they define and make sense of the term within their professional learning context. The second question focuses on the *enactment of reflexive praxis*, analyzing how reflection is integrated into their day-to-day experiences in coursework and practicum, and how it informs their decision-making and growth. The third question turns to the *evidence of reflection* in written practicum reflections, seeking to assess the depth and quality of reflective thinking demonstrated in their writing. Together, these questions illuminate how reflection is interpreted, experienced, and expressed by teacher candidates, offering insights into both their personal learning journeys and the broader pedagogical structures that shape reflective practice in teacher education.

The findings provided a detailed analysis of how teacher candidates in ITE programs conceptualize the term 'reflection,' engage with reflective practices, and demonstrate reflexive praxis through their written practicum reflections. This analysis was accompanied by a somewhat linear discussion to outline the key patterns that emerged. In this chapter, I transition

from the presentation of findings to a broader interpretative discussion, situating these findings within the relevant literature and the theoretical framework guiding this study.

Throughout the chapter, I will connect the study's findings to the theoretical and practical implications for teacher education as part of the ongoing discussion. I will explore how the insights gained from this research align with and extend current literature on reflective practice, including critical perspectives on the role of power, assessment, and institutional expectations in shaping reflective engagement. By integrating the findings with the literature throughout, I will address how my research contributes to a broader understanding of how reflective practices can be revitalized within teacher education to foster more meaningful, critically engaged practitioners. Overall, this chapter aims to provide a comprehensive discussion that not only synthesizes the findings of this study but also offers practical recommendations for enhancing reflective practices in ITE programs. By critically engaging with both the data and the literature, this discussion contributes to ongoing efforts to ensure that reflective practice remains a valuable and transformative component of teacher education, ultimately supporting teacher candidates in becoming reflective practitioners who can adapt to the complexities of contemporary classrooms.

Reframing Teacher Candidates' Understandings of Reflection

Teacher candidates in this study exhibit diverse and sometimes conflicting understandings of reflection, making it a complex and multifaceted concept within teacher education. While some view reflection as an essential tool for continuous learning and professional growth, others perceive it as a structured requirement, often disconnected from their teaching philosophies. For instance, many teacher candidates associate reflection with improving their teaching by learning from both successes and challenges, aligning with Dewey's (1933) framing of reflection as a dynamic and iterative process. However, concerns arise when

reflection is reduced to formal, box-ticking exercises, limiting its potential for fostering deep critical thinking. Scholars like Brantley-Dias et al. (2021) and Ryan (2011) critique these mandated practices for prioritizing performance over authentic learning, while Russell (2013) warns that such approaches risk narrowing reflection to procedural assessments, ultimately compromising its transformative potential. This divergence underscores how teacher candidates' engagement with reflection is shaped by both their personal beliefs and the structural frameworks of their ITE programs. Scholars such as Lee (2005) caution that without adequate support, reflection can become a routine habit rather than a meaningful practice for growth, and Smyth (1989) emphasizes the need for critical interrogation to avoid superficiality in reflective exercises.

This divergence highlights the need to critically examine how reflection is conceptualized and implemented in ITE programs. As Fuentealba Jara and Russell (2023) emphasize, fostering meaningful engagement with reflective practice requires interrogating the assumptions that underpin teacher candidates' interpretations and experiences. Without such examination, reflection risks devolving into a superficial, mechanical process, failing to cultivate critical thinking, self-awareness, and professional development.

To address these challenges, it is essential to explore how teacher education programs can support the development of critically engaged reflective practitioners (Collier, 1999; Shoffner, 2008). This section examines these tensions, situating teacher candidates' perspectives within broader theoretical and empirical literature to highlight the implications for teacher education practices.

Reflection as a Growth Mindset vs. Reflection as Compliance

The tension between reflection as a growth mindset and reflection as a compliance-driven or course-requirement task highlights a critical divide not only in how teacher candidates engage with reflective practice during their ITE programs but also within the teacher candidates themselves. While teacher candidates in my study often view reflection as a dynamic and transformative process that allows them to challenge existing habits and rethink instructional approaches, they can simultaneously experience it as a performative exercise shaped by programmatic requirements that emphasize accountability over deep engagement. This duality speaks to broader challenges within teacher education, where institutional structures and expectations influence not only the depth and authenticity of reflexive praxis but also how teacher candidates negotiate these competing demands—a contention I will discuss further in the next section.

For many teacher candidates in this study, reflection embodies a *growth mindset*. Carol Dweck (2006), in *Mindset: The New Psychology of Success*, defines a growth mindset as the belief that abilities and intelligence can be developed through dedication, hard work, and effective strategies. Participants described how reflecting on challenges led them to rethink instructional approaches, demonstrating their willingness to “take the risks, confront the challenges, and keep working at them” (Dweck, 2006, p. 8). This mindset enables teacher candidates to bridge their theoretical knowledge with the lived realities of teaching. This aligns with Freire’s (1970) concept of praxis, where reflection and action inform each other in a continuous cycle of learning and transformation. Rather than perceiving mistakes as failures, many teacher candidates’ reflections reveal an openness to interrogate their assumptions and reframe challenges as opportunities for growth.

The same teacher candidates sometimes wrestle with moments when reflection feels like a task of compliance—an exercise to meet programmatic expectations rather than an opportunity for genuine transformation. This compliance-driven approach highlights the disconnect between what Aoki (2004) calls *curriculum as lived* and *curriculum as planned*. In other words, participants in the present study described “what may be called the lived curriculum of the students.” (Aoki, 1993, p. 255). This lived curriculum, in Aoki’s words, “of course, is not the curriculum as laid out in a plan, but a plan more or less lived out.” (p. 255). So, while reflective tasks in teacher education programs are ‘planned’ to promote learning, they may fail to capture the unpredictable and emergent aspects of teaching when they are ‘lived out.’ This echoes Van Manen’s (1991) concept of tacit knowledge, where the most meaningful insights often arise through lived experience rather than prescriptive frameworks.

This tension may stem from a disconnect between the program's intended outcomes and their alignment with practical application. Empirical evidence suggests that reflective practices in ITE programs frequently suffer from unclear expectations and limited connections to practical experiences (Meierdirk, 2016; Russell, 2013; Scanlan & Chernomas, 1997). For instance, Russell (2013) critiques the tendency of reflection to become a ‘mechanical’ or ‘performative exercise,’ where teacher candidates engage in reflective tasks because they are ‘required,’ rather than because it leads to meaningful transformation. He argues that teacher educators often fail to explicitly link reflective tasks to professional learning or practicum experiences, further widening what Schön (1983) identifies as a gap between theory learned in university courses and practice experienced during teaching placements. This critique supports the argument that compliance-driven reflection often emphasizes form over substance, leaving teacher candidates, like Taylor, feeling detached from authentic engagement with the lived curriculum.

Additionally, study participants such as Adrian, Riley, and Cameron expressed that the assessment of reflective writing often felt imposed and meaningless, contributing to the tension between growth and compliance. Researchers such as Sumsion and Fleet (1996) and Luk (2008) highlight the subjectivity and inconsistency of evaluating reflective journals, arguing that rigid criteria may constrain teacher candidates' ability to engage in authentic reflection. Similarly, Roberts (2016) emphasizes that the structured demands of assessment often compel participants such as Taylor and Dylan to conform to external expectations, discouraging genuine introspection and critical self-exploration. This aligns with Hobbs' (2007) findings, where participants wrote "strategic" entries aimed at satisfying assessors rather than genuinely exploring their strengths and weaknesses. Such practices demonstrate how assessment can shift the focus from personal development to performance, further exacerbating this tension.

The tension between growth-oriented and compliance-driven reflection raises questions about how ITE programs can better support meaningful engagement with reflexive praxis. To overcome the tension between growth-oriented and compliance-driven reflection, ITE programs must adopt approaches that prioritize authentic engagement with reflective practices. While structured assignments provide accountability, they should be designed to honor teacher candidates' lived experiences and encourage critical questioning of practice rather than mere performance. Hobbs (2007) and Roberts (2016) highlight that reflective tasks should focus on the process of learning rather than meeting rigid criteria, suggesting that reflection should be introduced gradually in low-stakes environments to foster genuine introspection and confidence. Programs can provide flexible formats, allowing teacher candidates to choose from written journals, peer discussions, or alternative reflective approaches that resonate with their individual learning styles and experiences.

Clear and collaboratively developed objectives for reflection are critical in ensuring teacher candidates view the process as purposeful and relevant. Objectives should align with both individual goals and broader program aims, fostering investment in the reflective process. As the study by Philp-Clark and Grieshaber (2024) emphasizes, these objectives must be contextual and transparent, enabling teacher candidates to see reflection as a valuable tool for professional growth rather than a compliance-driven task. Moreover, programs should integrate reflection into the fabric of teacher identity, helping teacher candidates connect their beliefs and values to their professional practices, thus reinforcing the relevance and authenticity of reflective work.

Hatton and Smith (1995) emphasize the importance of moving beyond technical reflection, which focuses on surface-level problem-solving, to dialogic and critical reflection, which challenge assumptions and explore systemic issues. This aligns with Mälkki's (2019) work on critical reflection, which highlights the transformative potential of engaging with discomfort and “edge emotions”—the feelings of vulnerability and uncertainty that arise when individuals confront the limits of their current beliefs or practices. These emotions act as catalysts for deeper reflection, encouraging candidates to critically examine assumptions and develop new insights. Programs can support this process by fostering safe and supportive environments where candidates feel free to engage with these challenging emotions and uncertainties, thereby enhancing their professional growth and reflective capabilities.

Roberts also (2016) underscores the value of formative feedback that supports personal growth, advocating for reflection to be framed as a developmental journey rather than an evaluative task. Similarly, Wright and Bolitho (2007) stress that reflective processes should actively engage teacher candidates in a “thinking mode” that challenges their preconceptions and

enhances their teaching strategies. Mentors, through constructive feedback, can help candidates connect reflective tasks to their practical experiences, thereby preventing reflection from becoming a detached or mechanical exercise. Hobbs (2007) reinforces this by advocating for mentor-guided reflections that prioritize authenticity and practical relevance over compliance.

Social collaboration further enhances these reflective practices by creating opportunities for teacher candidates to engage collectively in reflection through peer groups, communities of practice, or with the support of critical friends or mentors. As Philp-Clark and Grieshaber (2024) highlight, collaborative environments foster diverse perspectives, mutual accountability, and a sense of support and value, which are crucial for sustaining meaningful and transformative reflective practices.

By embedding reflection in meaningful contexts, providing diverse opportunities for engagement, and focusing on the developmental aspects of reflexive praxis, ITE programs can better support teacher candidates in cultivating a growth mindset. This mindset empowers candidates to bridge theoretical knowledge with practical application, adapt teaching strategies effectively, and foster improved outcomes for their students. Such approaches ensure that reflective practices remain transformative and rooted in authentic professional development rather than driven by compliance.

The Prevalence of Teaching-Centric Lens

The findings revealed that the study participants' perceptions of reflection predominantly developed around their teaching practices, often focusing on the technical aspects of lesson delivery, classroom management, and measurable outcomes. This 'teaching-centric' lens emphasized immediate, surface-level problem-solving, prioritizing teacher performance and procedural improvements over deeper, critical engagement with broader pedagogical, ethical, or

systemic issues. While this approach supported participants in addressing practical challenges, it constrained their ability to explore reflection as a transformative tool for examining their beliefs, values, and the socio-cultural contexts of their teaching. This finding aligns with a plethora of empirical research that critiques the dominance of technical and procedural reflection in pre-service and in-service teachers (Derinalp, 2021; Hanafi, 2019; Sharil & Majid, 2010; Sidhu & Kaur, 2010; Thompson & Pascal, 2012; Too, 2013).

Participants in the present study frequently approached reflection as a tool for refining teaching strategies or improving lesson outcomes, often focusing on immediate, tangible aspects of classroom management and lesson delivery. For instance, participants like Taylor described reflection as a way to “fix what didn’t work” in a specific lesson, without questioning the broader pedagogical frameworks or their roles within systemic educational contexts. Such a limited scope aligns with what Hatton and Smith (1995) describe as *technical* reflection, which focuses primarily on resolving immediate concerns without critically interrogating underlying assumptions or systemic factors. Wright and Bolitho's (2007) similarly emphasize that reflection should challenge preconceptions and engage teacher candidates in deeper critical inquiry—an area largely absent in participants’ reflective practices. Roberts (2016) further highlights that such limited approaches to reflection prevent teacher candidates from conceptualizing it as a developmental process tied to personal growth, a pattern evident in this study where routine behaviors were often reinforced. Without structured opportunities to engage in transformative reflection, participants struggled to move beyond surface-level problem-solving, thereby limiting the potential of their reflective practices to foster deeper professional and personal growth.

Several studies highlight how institutional priorities and external pressures contribute to the teaching-centric focus observed in this study's participants. Mohamed et al. (2022) argue that

when reflective practice is confined to a cyclical process of planning, acting, and evaluating outcomes, it often prioritizes measurable results while neglecting critical dimensions such as ethical or cultural considerations. This institutional framing was reflected in participants' reflections, which often emphasized technical and procedural adjustments over deeper critical inquiry. For instance, Alex reflected on adapting her approach to accommodate a hesitant student by allowing him to keep his backpack, focusing primarily on resolving the immediate issue without exploring broader cultural or systemic factors influencing the student's behavior. This tendency aligns with Hourani's (2013) findings, which suggest that rigid frameworks in ITE programs constrain reflective practices by prioritizing observable outcomes over critical engagement.

Ball (2003) critiques the pervasive influence of performativity in education, where accountability systems reduce teaching to measurable metrics, shaping how teachers conceptualize their roles and reflective practices. This performative pressure was evident in Morgan's reflection on refereeing a soccer match, where her people-pleasing tendencies influenced her ability to address bullying. While she acknowledged the personal insights gained, her reflection remained focused on the immediate dynamics rather than systemic issues of power and fairness within classroom relationships. Similarly, Riley's reflections on rearranging seating plans during carpet time addressed classroom management but did not extend to examining how such decisions might impact students' social interactions or broader inclusivity.

The prioritization of accountability and measurable outcomes in ITE programs creates barriers to socio-cultural and ethical reflection, as noted by Afshar and Farahani (2018). Participants like Jordan and Dylan expressed this tension indirectly through their reflections. Jordan's reflections focused on aligning her teaching strategies with curriculum standards, while

Dylan emphasized the importance of acknowledging factors outside a teacher's control, such as socio-economic challenges. While these reflections demonstrated glimpses of broader reflection, the systemic pressures of accountability and the institutional emphasis on performance metrics limited their potential to engage in transformative reflection.

These findings suggest that institutional priorities and external pressures play a significant role in shaping participants' teaching-centric reflections, reinforcing a narrow focus on technical proficiency while sidelining relational, cultural, and ethical dimensions of teaching. This systemic influence underscores the need for ITE programs to foster reflective practices that challenge performativity and encourage critical engagement with broader educational contexts.

The literature suggests that this narrow focus perpetuates a limited view of 'effective teaching,' prioritizing technical proficiency and measurable outcomes while neglecting relational, cultural, and contextual dimensions of education. This aligns with findings from the present study, where participants' reflections often emphasized refining teaching strategies or improving lesson outcomes but rarely ventured into critical examination of broader educational contexts. Philp-Clark and Grieshaber (2024) argue that such a focus on teaching practices limits the transformative potential of reflection, as it fails to encourage teacher candidates to critically interrogate their roles within wider educational systems. Similarly, Zulfikar and Mujiburrahman (2018) stress the importance of reflective practices that extend beyond classroom experiences, integrating teachers' beliefs, emotions, and values to address wider educational challenges. However, participants in this study often remained within the bounds of structured reflective frameworks, echoing Hanafi (2019) critique of models like SWIS, which reinforce a teaching-centric focus on performance and classroom management (Strengths, Weaknesses, and Suggestions). This procedural approach often overlooks learner diversity, socio-cultural contexts,

and critical moral dimensions of teaching, constraining the transformative potential of reflective practice.

Critics like Barnett (1994) caution that an overemphasis on measurable competencies neglects essential elements like ethical considerations and the fostering of critical thinking. The German tradition of Didaktik, as explored in *Teaching as a Reflective Practice* (Westbury et al., 2012), presents an alternative by emphasizing cultural and contextual factors, advocating for a deeply engaged form of reflection that considers the broader societal implications of education. This approach aligns with Morgan and Riley's perspectives in this study, where their reflections occasionally touched on relational aspects, such as accommodating students' emotional needs or adapting teaching strategies for inclusivity, but fell short of systemic critique. Similarly, Pollard and Collin's *Reflective Teaching in Schools* (2005) highlight the need for a holistic approach that goes beyond technical skills to include emotional intelligence, empathy, and an understanding of students' diverse needs and experiences—elements that were inconsistently evident in participants' reflections.

To move beyond this narrow focus, research emphasizes the need to broaden teacher candidates' understanding of reflection, a goal strongly echoed in this study's findings. Encouraging dialogic and critical reflection, coupled with creating environments that foster problematizing and reframing challenges, can help teacher candidates interrogate their assumptions, connect theoretical knowledge to practice, and explore the systemic and ethical dimensions of their profession (Allen & Wright, 2014; Farrell, 2016; Russell & Korthagen, 2013; Wright & Bolitho, 2007). Participants like Taylor and Morgan demonstrated how reflection can evolve when it goes beyond technical problem-solving, with Morgan emphasizing adaptability and inclusivity as key outcomes of reflective practice. Social collaboration, as highlighted by

Philp-Clark and Grieshaber (2024) and Nilsson (2013), is also critical; reflective communities, critical friends, and mentor-guided dialogue provide teacher candidates with the support and diverse perspectives necessary for deeper critical engagement. Participants in this study, such as Alex, further underscored the importance of dialogue-based reflection with mentors and peers, highlighting its role in fostering motivation and nuanced professional insights.

By integrating these perspectives, teacher candidates can transcend surface-level, technical problem-solving to embrace a more expansive understanding of effective teaching. This approach frames teaching as a reflective practice that bridges cultural and ethical considerations with relational dynamics. For example, Dylan's emphasis on recognizing factors beyond a teacher's control points to the potential of reflective practice to develop systemic awareness, a critical component of transformative teaching. By engaging in collaborative and critical reflection, teacher candidates can develop practices that address both individual student needs and systemic inequities in education. The implications of these findings, including the role of mentorship and collaborative frameworks, will be further explored in the implications section.

Enacting Reflexive Praxis in Teacher Education

This section critically examines how teacher candidates in Ontario ITE programs enact reflexive praxis, focusing on two interconnected dimensions: the enactment process and the institutional and systemic influences.

The enactment of reflexive praxis in teacher education involves a dynamic interplay between personal dispositions, professional expectations, and contextual influences (Suphasri & Chinokul, 2021). Findings reveal that teacher candidates in the present study navigate this complex process through diverse reflective practices that evolve over time, ranging from structured post-lesson analyses to spontaneous, in-the-moment adaptations during teaching.

These reflective modes are characterized by the interplay between reflection as retrospective and reflection as adaptive, highlighting how teacher candidates balance reflection-on-action with reflection-in-action to address classroom challenges and improve instructional strategies.

Institutional frameworks and systemic structures significantly shape these reflective practices, offering both opportunities and constraints. Professors, associate teachers, and program structures play crucial roles in supporting or hindering the development of reflective capacity (Loughran, 2002; Parsons & Stephenson, 2005; Russell, 2022b). Lastly, the transformative potential of reflexivity is examined, revealing how reflection fosters critical awareness, adaptability, and professional growth while offering pathways for addressing systemic inequities in education (Allen & Wright, 2014; Korthagen & Nuijten, 2022).

By exploring these dimensions, this discussion sheds light on the multifaceted nature of reflexive praxis, the challenges teacher candidates encounter, and the opportunities for enhancing teacher education programs to better support reflective practices.

Reflection as Retrospective vs. Reflection as Adaptive

The enactment of reflexive praxis by teacher candidates involves navigating personal and professional boundaries (Farrell, 2015; Korthagen & Vasalos, 2005; Mortari, 2012), as they integrate Schon's (1983b) reflection-in-action, -on-action, and -for-action into their daily teaching practices. In this discussion, I critically examine these practices in the participants through the lens of Eraut's *Schon Shock* (1995), which challenges the clarity and applicability of Schon's framework in complex professional contexts. Specifically, Eraut critiques the rigidity of Schon's framework, emphasizing the importance of distinguishing between rapid, intuitive reflections in the moment and more deliberative, structured reflections post-action. He notes:

Reflection-in-action is a process of knowledge creation, not a new kind of knowledge [...] However, the distinction between reflection-in-action and reflection-on-action may not be as clear as Schön and most subsequent writers imply. Many practical processes can be construed as comprising several episodes, thus allowing them to be interpreted either as one single multi-phase action or a series of successive but separate actions. (Eraut, 1995, pp. 16-17)

Eraut's critique provides a valuable lens as it interrogates the oversimplified dichotomies in Schön's work, emphasizing the interplay between time, context, and cognitive processes in professional reflection. This perspective allows for a deeper exploration of how teacher candidates' reflective practices are shaped by institutional expectations, developmental stages, and practical realities. His critique of Schön's reflection-in-action highlights the need to consider the variability of reflective practices across different professional contexts and their dependence on external structures and individual capacities.

The findings of the present study highlight a spectrum of approaches to reflection, ranging from structured, deliberate practices to more intuitive, spontaneous processes, necessitating a nuanced critique of how reflective modes are enacted and supported within teacher education programs. While almost all study participants are at the same point in their formal education, Eraut's attention to the time dimension of reflection helps differentiate and understand how individual teacher candidates engage with reflective practices depending on their personal dispositions and readiness for specific reflective approaches. This aligns with Larrivee's (2008) argument that reflective practices deepen with confidence and professional growth, as well as Hatton and Smith's (1995) emphasis on recognizing varying levels of reflection, from descriptive to critical.

For instance, Morgan's reliance on structured, post-lesson reflections suggests a preference for reflection-on-action, which allows for a deliberate, systematic approach to analyzing classroom experiences. Her detailed logs and end-of-day reflections signify a structured approach to reflexivity, often essential for novice teachers managing the immediate challenges of classroom demands. This aligns with Eraut's (1995) emphasis on the deliberative nature of reflection-on-action, where the process occurs post-activity and allows for systematic analysis and knowledge-building. Eraut highlights that such structured reflection provides essential cognitive space for practitioners to make sense of their experiences and adapt their strategies over time. Similarly, Kember et al.'s (1999; 2008) supports the idea that such structured practices help practitioners identify and refine their approaches over time. However, Eraut critiques this as potentially limiting in high-pressure environments, suggesting that over-reliance on structured reflection might hinder the ability to respond intuitively in real-time. Additionally, such reflective practices may prioritize compliance over authenticity, particularly when the focus shifts from internalized learning to meeting program criteria.

In contrast, Taylor's introspective "stream of consciousness" approach and Dylan's critique of "forced reflection" highlight a more organic enactment of reflexivity. Taylor's free-flowing, adaptive practice aligns with Moon's (2013) observation that reflection often involves deeper, unstructured processes that connect emotions and cognition. Adrian's reflective approach, which balances responsiveness during lessons and retrospective analysis afterward, reflects Eraut's emphasis on the need for reflection that is both dynamic and context-sensitive. Furthermore, Dylan's skepticism toward structured, compliance reflections resonates with Brookfield's (2017) call for reflection that prioritizes authenticity and personal meaning over institutionalized practices. Eraut's concept of *implicit reflection*, which occurs intuitively and

often unconsciously in response to unfolding situations further reinforces this view. His critique of Schön's reflection-in-action, which, while celebrated, is often conflated with slower, deliberative processes, underscores this point by arguing that true reflection-in-action is a rapid, metacognitive process embedded in immediate decision-making, a skill often overlooked in formalized reflective frameworks. These variations among teacher candidates do not necessarily indicate differing levels of experience but rather reflect the diversity of cognitive and emotional approaches to reflexivity among teacher candidates at the same developmental stage.

Eraut's critique also highlights the importance of situational context in shaping how reflective practices are enacted. In classroom scenarios, the immediacy of teaching demands often necessitates quick, intuitive adjustments rather than deliberative reflection. Taylor's ability to adjust her lesson in response to the "flow of the room" exemplifies such in-action adaptation, directly aligning with Eraut's emphasis on rapid, intuitive reflection as a metacognitive process in dynamic environments. Similarly, Dylan's preference for more natural, unprompted reflection underscores the need for reflection that is responsive to real-time teaching challenges rather than being overly structured or retrospective. Resonating with this interpretation, Adrian's emphasis on continuously thinking about both his students' needs and his teaching practices reflects a natural, ongoing reflective process. Additionally, his commitment to nurturing respect and tailoring his teaching to individual students highlights the deeply personal and intrinsic nature of his reflexive praxis. This aligns with Hatton and Smith's (1995) recognition of dialogic reflection— a reflective process involving self-dialogue or collaboration with others to critically examine and evaluate multiple perspectives in real-time. In contrast, Morgan's structured approach, while valuable for documenting and analyzing experiences, may be less suited to addressing the unpredictable, immediate demands of the classroom.

Interestingly, Alex's transition from reflection-on-action during her practicum to reflection-in-action as a supply teacher highlights the evolution of reflexive praxis as teacher candidates gain autonomy and confidence. During her practicum, the structured environment and the presence of a supervising associate teacher provided a framework for reflection-on-action, offering continuous feedback but limiting Alex's ability to make immediate adjustments. This aligns with Eraut's critique that while structured institutional processes can support reflection, they may also suppress the intuitive and autonomous aspects of reflection critical in professional practice. As Alex transitioned to independent teaching, she embraced dynamic, real-time reflection to address immediate classroom challenges. For example, her ability to adapt lesson schedules based on student engagement reflects Eraut's concept of rapid, intuitive reflection, which is vital in fast-paced settings.

This blend of/imbalance between reflection-in-action and reflection-on-action among the study participants can be explained in light of Russell's reframing of Schön's reflection-in-action, emphasizing the importance of contextualizing reflective practices within the realities of professional settings (Munby & Russell, 1992; Russell & Munby, 1991). Russell supports the notion that reflection must be adaptive and situated, offering a pragmatic interpretation of Schön's framework. However, Russell also extends the utility of reflection-in-action, viewing it as a valuable tool for professional growth when reframed to include a broader understanding of reflective contexts.

Russell's reframing of Schön's reflection-in-action aligns with Eraut's critique by emphasizing the need to contextualize reflective practices within the practical realities of professional settings, while also offering a more balanced perspective. Unlike Eraut's stringent critique, which questions the feasibility of applying Schön's concepts to high-pressure

environments like classrooms, Russell highlights the value of reflection-in-action when adapted to address the complexities and fluidity of real-world practice. Together, their perspectives underscore the need for teacher education programs to balance structured and adaptive forms of reflection, ensuring teacher candidates are prepared to meet both the reflective expectations of their training and the unpredictable demands of teaching.

The findings reveal a shared commitment among teacher candidates to improve their teaching practices through reflection, yet the ability to enact meaningful reflection is often constrained by factors such as nascent confidence and classroom management priorities. For instance, Morgan's reliance on post-lesson reflection exemplifies how structured reflection can provide a necessary foundation for developing reflective capacity. This supports Larrivee's (2008) assertion that deeper reflective practices evolve with growing self-assurance and experience.

Thus, the enactment of reflexive praxis highlights the need for teacher education programs to offer differentiated support that accommodates the diverse reflective capacities of teacher candidates. By incorporating both structured and adaptive approaches, such programs can bridge the gap between theoretical frameworks and the lived experiences of teacher candidates, better equipping them to navigate diverse reflective modalities. This alignment fosters a more holistic and responsive approach to professional practice, enabling teacher candidates to engage meaningfully with the complexities of teaching while cultivating their reflective and adaptive skills.

Institutional and Systemic Influences: Constraints and Opportunities

Findings revealed that teacher candidates encounter a complex interplay of institutional and systemic influences that both challenge and enable their ability to engage in reflexive praxis.

These influences are not easily categorized into binary constraints or opportunities; rather, they reflect a dynamic interplay of factors that shape the depth, authenticity, and sustainability of reflective practices. In this section, I will explore how institutional structures, mentorship, and programmatic priorities simultaneously create barriers and provide avenues for teacher candidates to navigate and develop their reflective capacities.

While challenges such as assessment-driven reflection, lack of guidance, time constraints, and inconsistent feedback can hinder the depth of reflective engagement, teacher candidates also identified strategies and systemic conditions that facilitated their growth. For instance, the same institutional frameworks that create performative pressures can, with adjustments, offer opportunities for structured support and collaborative engagement. By weaving together these influences, and through the dual lens of Aoki's lived curriculum and Freire's praxis, this section examines how contradictions between program goals and practical realities ultimately shape teacher candidates' lived experiences of reflection as a dynamic process of action and critical reflection aimed at meaningful professional transformation.

Assessment-Driven Reflection. Assessment-driven reflection emerged as a key constraint, with teacher candidates critiquing the emphasis on grades as undermining the authenticity and purpose of reflective practices. Building on the earlier discussion of reflection as a growth mindset versus compliance, the focus here shifts to how institutional structures, particularly assessment-driven practices, operationalize reflection as compliance. This systemic constraint exacerbates the tension, creating barriers to authentic, meaningful engagement. Teacher candidates in the present study frequently described reflective tasks as overly academic and disconnected from introspection and shaped by performative pressures.

Tom Russell's critique of reflective practices in teacher education adds another dimension to this discussion. Russell (2013) argues that reflective tasks in many programs are often designed to meet institutional requirements rather than support genuine professional growth. This leads to "mechanical" or "performative" reflection, where focus is on fulfilling external expectations rather than engaging in authentic self-assessment. This critique aligns with the experiences of Taylor, who expressed frustration with compliance-driven reflective tasks, and Morgan, who struggled to see the relevance of reflective writing in the absence of clear guidance.

Stephen J. Ball's (2003) concept of performativity provides a critical lens for understanding these dynamics, where reflections are reduced to compliance-driven tasks designed to meet external expectations. Ball highlights how performative systems prioritize measurable outputs over authentic engagement, fostering "fabrications" and inauthentic practices. This aligns with Taylor's admission that she submitted reflections tailored to what professors wanted, sacrificing genuine self-exploration. Similarly, Adrian noted that the subjective nature of graded reflections shifted his focus to aligning with evaluators' criteria rather than introspection.

The emotional toll of assessment-driven reflection, including anxiety and self-doubt, further illustrates the constraints of performative systems. Hourani (2013) and Afshar and Farahani (2018) both identify fear of self-criticism, low confidence, and anxiety as major inhibitors of reflective engagement. Taylor's discomfort with reflective tasks mirrors these findings, as she described feeling overwhelmed by the pressure to meet grading criteria and the lack of clear guidance on how to reflect effectively. This left her feeling hesitant to engage authentically with reflective practices, often prioritizing what she believed assessors wanted to

see over genuine self-exploration. Riley expressed heightened anxiety tied to perfectionism, while Cameron and Dylan described the pressure to conform to evaluative standards as undermining the reflective process's transformative potential.

These emotional challenges underline the need for reflective practices that emphasize support, authenticity, and professional growth rather than compliance with external expectations. Ball's (2003) notion of "structural schizophrenia," (p. 223) where individuals navigate conflicting demands of meaningful engagement and compliance, echoes these tensions, highlighting the disconnect between institutional expectations and teacher candidates' professional aspirations. Ball further explains, "A kind of values schizophrenia is experienced by individual teachers where commitment, judgement and authenticity within practice are sacrificed for impression and performance." (2003, p. 221).

Ultimately, assessment-driven reflection risks reducing reflection to a mechanical task, prioritizing procedural compliance over critical growth. To mitigate these constraints, reflective practices in ITE programs must shift away from summative evaluations toward formative, authentic engagement, ensuring reflection serves as a meaningful tool for professional development rather than a performative obligation.

Lack of Guidance and Variability in Mentorship. Participants frequently highlighted the lack of clear guidance on how to engage effectively in reflective practices, which compounded their anxiety and uncertainty. Adrian observed, "No one really showed us how to reflect," underscoring the assumption within the ITE programs that teacher candidates enter with pre-existing reflective skills. Similarly, Morgan expressed frustration at the absence of clear strategies for reflective writing, noting that she was left to navigate the process independently. This lack of instruction often forced teacher candidates to rely on trial-and-error approaches,

heightening anxiety, particularly in evaluative contexts where they felt pressured to conform to grading criteria rather than explore their own truths.

This challenge was further compounded by the systemic pressures faced by associate teachers, who often struggled to balance their teaching responsibilities with supervisory roles. Participants like Riley acknowledged the efforts of her ATs to provide support despite overwhelming classroom demands. Asmare et al. (2024) highlight how heavy teaching workloads and limited time for reflection inhibit teachers' ability to engage in reflective practices themselves, making it difficult for them to provide consistent guidance to teacher candidates. This dynamic was evident in the present study, where participants appreciated the mentorship they received, while also noting its variability and the challenges it created for their reflective growth.

The variability in mentorship quality further exacerbates these challenges. Riley described the collaborative and dialogic reflection she shared with her associate teacher (AT) as a critical enabler of her reflective growth: "We were very much a team, and we treated each other like a bouncing board." Her AT provided actionable feedback, transforming reflective moments into opportunities for professional development. However, this experience was not universal. Taylor and Jordan recounted instances where limited feedback and mentorship left them uncertain about their progress or areas for improvement. Afshar and Farahani (2018) emphasize the importance of mentorship as a "thinking-coach" role, where mentors provide structured guidance and constructive feedback to support reflective growth. Similarly, Schön (1987) argues that effective mentorship facilitates both reflection-in-action and reflection-on-action, bridging the gap between theory and practice.

Nonetheless, teacher candidates also identified opportunities to address these challenges through explicit mentorship and targeted training. For instance, Adrian highlighted how one mentor's direct guidance during post-lesson reflections allowed him to focus on actionable improvements, reducing his anxiety and uncertainty. Similarly, Morgan suggested that providing reflective prompts or examples of effective reflective writing would make the process more accessible and less daunting. These insights align with literature emphasizing the potential of structured support to alleviate the challenges of reflective engagement.

While these opportunities underscore the potential for targeted support to address individual challenges, they also highlight broader systemic issues within teacher education programs. Afshar and Farahani (2018) identify insufficient opportunities for developing reflective teaching skills as a critical inhibitor to meaningful engagement in reflective practices. They argue that reflection cannot be assumed as an inherent skill and requires structured scaffolding, including explicit instruction, modeling, and opportunities for dialogue. Similarly, Boud and Walker (1998) emphasize that teacher education programs often fail to design structural supports, such as guided training and clear expectations, resulting in fragmented and superficial reflective practices. Hourani (2013) echoes these findings, noting that reflective tasks are integrated into coursework but not accompanied by targeted instruction or support. These studies align with the experiences of teacher candidates in the present study, who reported uncertainty about how to approach reflective tasks effectively.

To address the gaps in reflective practices among teacher candidates, targeted interventions must scaffold reflective practices effectively while fostering creativity, collaboration, and contextual relevance. For example, the potential for structured guidance aligns with broader recommendations in the literature. Hourani (2013) emphasizes that explicitly

teaching reflective skills through guided prompts and scaffolded examples can empower teacher candidates to navigate reflective tasks with confidence. Woolfolk Hoy (2016) supports this by advocating for systematic instruction in reflection as part of ITE programs, noting that scaffolding reflection can mitigate the negative impacts of trial-and-error approaches. Russell (2022a) highlights that mentorship plays a critical role in fostering reflective skills, particularly when mentors engage in dialogic feedback and model reflective practices effectively. Hallman (2011) underscores the importance of a dialogic approach, where reflections are seen as responses to an intended audience, bridging the gap between process and product. This approach helps teacher candidates critically engage with their teaching practices while addressing institutional expectations.

Additionally, strong school-university partnerships are essential for aligning theoretical instruction with practicum experiences. Allen and Wright (2014) highlight how such partnerships clarify roles and responsibilities, ensuring mentors and university supervisors collaboratively support reflective growth. Kosmanou and Vassilaki (2023) further recommend integrating creative reflection formats, such as dialogic texts or life stories, to reduce the rigidity often associated with academic reflection and foster authentic engagement.

Enhancing mentor engagement through structured, dialogic feedback is critical to supporting teacher candidates in their reflective practices. Bussey and Lay (2023) highlight the role of university supervisors in facilitating meaningful discussions and using reflection as a diagnostic tool to assess and improve teaching practices. Similarly, Russell (2022a) underscores the significance of fostering metacognition and learning from professional experience through strategies like individualized feedback and modeling reflective practice. This aligns with findings by Jara and Russell (2023a), who advocate for reflective supervision

approaches that include listening and questioning practices to guide teacher candidates in exploring their assumptions and actions.

Collaborative reflection, facilitated through peer discussions and group activities, adds another layer of support for teacher candidates. Bussey and Lay (2023) and Russell (2022b) highlight the benefits of creating spaces where candidates can engage in reflective dialogue, sharing diverse perspectives and fostering a culture of mutual learning. This collaborative approach builds a sense of community and reduces the isolation often felt during teaching placements, as noted by Davis and Fantozzi (2016) in their exploration of effective mentor-mentee relationships.

By combining structured mentorship, real-world application, and collaborative spaces, these strategies address systemic gaps and empower teacher candidates to develop meaningful, growth-oriented reflective practices. The integration of diverse, evidence-based approaches ensures that reflective practices move beyond compliance and foster genuine professional growth.

Time Constraints. Balancing reflective requirements with the practical responsibilities of teaching emerges as a significant barrier for teacher candidate. Alex succinctly stated, “There isn’t time,” highlighting how the immediate demands of lesson planning, classroom management, and student engagement often leave little room for deep, meaningful reflection. Dylan echoed this sentiment, observing that reflective practices often feel unrealistic amidst the competing priorities of daily teaching responsibilities.

Nonetheless, some teacher candidates identified opportunities to make reflection more feasible by embedding it into their daily routines. Participants like Riley emphasized the value of integrating brief reflective activities that fit seamlessly into their schedules. Alex, for instance,

found meeting with peers before class to discuss lesson plans and share teaching strategies particularly helpful, describing it as “an easy way to reflect and get immediate feedback on what might work or what to change.” These approaches allowed teacher candidates to reflect on their practices without feeling overwhelmed, highlighting the potential for reflection to complement rather than compete with their workload.

This struggle is not unique to individual teacher candidates but reflects a systemic issue within ITE programs, where reflective practices are often treated as additional tasks rather than integrated components of professional learning. Bussey and Lay (2023) emphasize that teacher candidates often view reflective tasks as an additional burden rather than an integral part of their teaching practice, particularly when structured reflection is not embedded seamlessly into their daily activities. Similarly, Asmare et al. (2024) note that the heavy workload and multitasking required of teacher candidates during teaching placements diminish their ability to engage in reflection meaningfully. Woolfolk (2016) supports this, emphasizing how the “press of the practical” leads to reflection being deprioritized as teacher candidates juggle multiple responsibilities. She highlights that reflective practices often feel disconnected from the immediate needs of teaching, which can result in superficial engagement rather than deep, integrative thinking.

Participants in Wei’s (2024) study described feeling unprepared for the multiple roles teachers must juggle, with reflection often deprioritized in the face of more immediate responsibilities. For example, one participant remarked that she had underestimated how much non-teaching responsibilities would impact her ability to focus on teaching and reflection. Other participants in Wei’s study emphasized the difficulty of balancing teaching tasks with reflective practices, noting that these often feel like separate and competing demands. This reflects the

systemic issue of how time constraints can diminish the capacity for in-depth reflection. The study suggests that reflection needs to be integrated into teaching tasks to avoid feeling like an “add-on.” For instance, incorporating reflection into regular teaching routines, such as post-lesson debriefs or reflective journaling tied directly to classroom events, could alleviate this tension. Similarly, Woolfolk (2016) underscores that reflection needs to be seamlessly integrated into fieldwork and daily teaching practices to ensure it is not perceived as an additional burden. She advocates embedding reflective tasks directly into practical teaching routines, such as lesson debriefs or immediate classroom feedback, allowing teacher candidates to engage in meaningful reflection without feeling overwhelmed by their workload.

Davis and Fantozzi (2016) argue that effective mentorship can help alleviate some of these pressures by modeling how reflection can be integrated into real-time teaching practices. For example, mentor teachers and supervisors who provide quick, actionable feedback during or immediately after lessons can help teacher candidates develop reflective habits without adding excessive time demands. Woolfolk (2000) also highlights the importance of scaffolding reflection through manageable, context-sensitive frameworks that align with the immediate needs of teaching, ensuring that reflection becomes a natural part of professional development rather than an added burden, aligning reflective tasks with actionable knowledge. By framing reflection as an opportunity to analyze and respond to immediate classroom challenges, programs can make reflection feel more relevant and manageable.

Russell (2022a) suggests incorporating shorter, real-time reflection strategies, such as “exit tickets” or quick debrief sessions, which allow teacher candidates to capture key insights without the burden of lengthy writing tasks. Additionally, integrating reflection into collaborative spaces, such as peer discussions or mentor-led feedback sessions, can transform

reflection from an isolated task into a shared, dynamic learning experience (Fuentelba Jara & Russell, 2023a). Programs should also allocate dedicated time for reflection during coursework and practicum placements to emphasize its importance as a professional development tool rather than an optional or secondary task. Smith (2011) emphasizes that for reflection to be effective, it must be prioritized and scaffolded within the constraints of a teacher candidate's workload. This can include assigning structured prompts that align with daily teaching activities, reducing the perceived time burden while fostering consistent reflective engagement.

Feedback Limitations. Many teacher candidates experience infrequent or superficial feedback from professors and associate teachers (ATs). Riley lamented, “We don’t receive feedback on our reflections,” highlighting how the absence of actionable guidance left her uncertain about the effectiveness of her reflective efforts. Jordan shared a similar sentiment, explaining that when feedback was too general or delayed, it failed to provide her with clear direction for improvement. Adrian, however, noted that when ATs provided specific, constructive feedback during lessons, it was easier to identify immediate areas for growth and experiment with adjustments in real time. These insights point to the potential of integrating more targeted and timely feedback into reflective practices to address the issue.

This reflects broader trends identified in educational literature, where limited feedback mechanisms hinder reflective growth. Studies critique the lack of structured, meaningful feedback within teacher education programs, emphasizing that feedback often lacks the specificity required to guide meaningful reflection (among others Cutrer-Parraga & Miller, 2022; Russell, 2022b; Russell & Korthagen, 2013; Shoffner, 2008; Woolfolk, 2016). Generic or infrequent feedback leaves teacher candidates uncertain about how to improve their practices, hindering their ability to engage deeply with reflective processes. Woolfolk Hoy (2016)

emphasizes that feedback must be timely and actionable to help teacher candidates connect their reflections to practical teaching improvements. However, when feedback is delayed or vague, as highlighted by Riley's experience, teacher candidates often struggle to refine their teaching practices effectively. Similarly, Wei (2024) notes that variability in the quality of feedback from mentors exacerbates these challenges, with some mentors providing clear and supportive guidance while others are overly critical or minimally involved. This inconsistency leaves teacher candidates like Jordan uncertain about their strengths and areas for improvement.

Mentorship plays a pivotal role in addressing these limitations. Bussey and Lay (2023) argue that mentors and university supervisors should adopt a dialogic approach to feedback, engaging teacher candidates in reflective conversations that encourage self-assessment and critical thinking. Collaborative reflection is a particularly effective strategy, as noted by Fuentealba Jara and Russell (2023), who emphasize the value of creating spaces where mentors and peers can provide diverse perspectives and constructive critique, fostering a more supportive and dynamic feedback environment. Cutrer-Parraga and Miller (2022) extend this notion, highlighting the importance of collaborative feedback cycles where mentors and teacher candidates work together to analyze teaching challenges and co-create actionable solutions. Such interactions build trust and encourage deeper engagement with reflective practices. However, this ideal is often not met, as Shoffner (2008) critiques the lack of structured, meaningful feedback within teacher education programs, noting that reflection without clear guidance risks becoming an isolated, unproductive exercise.

The integration of feedback into real-time teaching contexts is equally critical. Hallman (2011) suggests using immediate post-lesson debriefs to guide teacher candidates through reflective practices, ensuring that feedback is closely tied to their classroom experiences. She

underscores the dialogic potential of feedback, advocating for approaches that view reflections as responses within a larger conversation. This ensures that feedback is grounded in actionable insights rather than remaining superficial or procedural. Russell (2022a) supports this by advocating for short, focused feedback loops that address specific teaching moments, making reflection more manageable and relevant. Similarly, Cutrer-Parraga and Miller (2022) note that real-time feedback during literacy coaching sessions allows teacher candidates to implement changes immediately, increasing the practical value of reflective efforts.

Programmatic structures must prioritize consistent and high-quality feedback to support teacher candidates' reflective development effectively. Asmare et al. (2024) stress the importance of embedding comprehensive feedback frameworks within teacher education programs to ensure teacher candidates receive regular, detailed evaluations from mentors, peers, and professors. Such frameworks should aim to scaffold teacher candidates' reflective skills through thoughtfully designed guided prompts, structured discussions, and problem-based scenarios. These strategies enable candidates to critically analyze their teaching practices, gain actionable insights, and identify clear pathways for professional growth.

Kosmanou and Vassilaki (2023) caution against reducing reflective assignments to mere academic exercises, emphasizing the necessity for feedback to align closely with teacher candidates' professional development goals. Feedback that is tailored, purposeful, and linked to real-world teaching contexts maximizes its relevance and effectiveness. Incorporating collaborative reflection, as advocated by Shoffner (2008) and Cutrer-Parraga and Miller (2022) further amplifies the impact of feedback by embedding it within meaningful, dialogic, and context-driven learning experiences. This approach enhances teacher candidates' engagement and also fosters a deeper connection between reflective practice and the practical realities of

teaching, ensuring that feedback becomes a powerful catalyst for sustained professional development.

Addressing feedback limitations requires a multifaceted approach that combines effective mentorship, real-time feedback strategies, and structured programmatic support. Timely, specific, and actionable feedback empowers teacher candidates to engage meaningfully in reflection, fostering professional growth and bridging theory with practice. These strategies ensure feedback drives transformation, equipping teacher candidates with the skills and confidence for effective teaching.

Unpacking Teacher Candidates' Written Reflections

This section explores the findings in light of the third research question: *What evidence of reflection is demonstrated in teacher candidates' written reflections on their practicum experiences?* Using Kember et al.'s (2008) framework as a guiding analytical lens, the study identified varying levels of reflection across teacher candidates' written journals: habitual, understanding, reflection, and critical reflection. The analysis revealed a predominant focus on intermediate levels of engagement, with reflections often centered on evaluating teaching strategies, connecting theory and practice, and adapting to classroom challenges. While critical reflections were less frequent, their presence highlighted instances of profound professional transformation.

The discussion situates these findings within the broader literature, emphasizing reflection's dynamic and developmental nature, the interplay between theory and practice, and the potential for critical reflection to foster transformative growth. By examining the evidence of reflective engagement in teacher candidates' written reflections, this section provides insights into how reflective writing functions as a tool for professional learning and adaptive expertise.

Dynamic and Developmental Nature of Reflection

The findings of this study reveal the dynamic and developmental nature of reflection, illustrating how teacher candidates engage with their practicum experiences through written reflections. Teacher candidates' written reflections often began with procedural descriptions of classroom events before progressing into evaluative and analytical insights. While no reflections were coded exclusively as habitual action, elements of non-reflection were foundational across all levels (discussed in detail in Chapter 5). These procedural recounts often evolved into reflections on the impact of specific actions on student engagement and learning outcomes, highlighting reflection as an iterative and developmental journey. This pattern aligns with Dewey's (1933) view of reflection as a progressive process, where recounting experiences serves as a foundation for deeper critical engagement. Similarly, Aoki's concept of 'situational understanding' underscores how teachers adapt their practices in response to the tensions between planned and lived curricula (1991, 1993), a dynamic evident in reflections such as Riley's adjustments during her video lesson.

Too (2013) highlights that reflective learning is a progressive and iterative process, moving from lower-order reflection (identification) to higher levels, such as analysis and transformation. His study found that 77% of reflective entries demonstrated deep learning, indicating that with sustained engagement and support, pre-service teachers can progress from surface-level recounts to more meaningful reflections. Too's findings align with my study, where teacher candidates often began their reflections with procedural recounts but gradually moved toward more evaluative and analytical insights. His study also emphasizes the role of frameworks and prompts in supporting this progression, showing that structured guidance can help pre-service teachers achieve deeper reflection. While my study used Kember et al.'s (2008)

framework to analyze the depth of written reflections rather than as a reflection tool, the findings similarly highlight the importance of structured scaffolding and iterative practice in fostering reflective growth. These findings collectively underscore that deliberate support and reflection tasks are crucial for helping teachers bridge the theory-practice divide.

Most teacher candidates' reflections in my study (93.8%) were situated at the understanding and reflection levels, demonstrating active engagement with their experiences but limited critical examination (6.2%). At the understanding level (36.5%), teacher candidates exhibited a surface-level grasp of teaching concepts, often referencing coursework or mentors without analyzing broader implications. For example, Taylor's reflection on using projected examples in art lessons highlighted procedural success without evaluating its impact on student learning. Similarly, Adrian's acknowledgment of students' need for more measurement practice indicated awareness but stopped short of proposing specific strategies for improvement.

The majority of reflections (57.3%) fell under the reflection level, showcasing deeper engagement with teaching practices. At this level, teacher candidates evaluated their methods, proposed changes, and connected classroom experiences to theoretical knowledge. For instance, Riley's reflection on her French as a Second Language class highlighted the spontaneous use of French by students, demonstrating her ability to connect her teaching strategies to student outcomes. Similarly, Taylor's adaptation of a science lesson to accommodate students' emotional needs exemplifies reflective adaptability. These findings indicate that, while teacher candidates actively engage with their experiences, critical reflection remains a significant challenge.

The developmental trajectory observed in the present study mirrors findings by Slade et al. (2019), who reported that 56% of reflections in their study fell at the understanding level,

characterized by an accurate grasp of concepts but limited personal or contextual analysis. Similarly, Kosmidou and Sfyroera (2023) emphasize the iterative nature of reflective practice, noting that sustained opportunities and deliberate scaffolding are essential for fostering deeper engagement. This finding reflects Van Manen's (1977) levels of reflection, where technical and practical concerns dominate, and Valli's (1993) concept of "technical reflection," which focuses on evaluating the application of pedagogical knowledge and teaching skills within the classroom.

The prevalence of evaluative reflections in this study aligns with Hanafi's (2019) analysis, which found that student teachers predominantly performed evaluations of their teaching performance, often limiting their reflections to analyzing whether their lessons were successful or unsuccessful. Bloom's taxonomy positions evaluation as a higher-order cognitive skill, requiring appraisal, critique, and justification based on evidence (Anderson & Krathwohl, 2001). However, Hanafi observed that many reflections remained confined to self-judgment of teaching skills rather than applying broader evaluative capacities. This mirrors findings in the current study, where reflections at the understanding level frequently referenced coursework or mentors without critically analyzing broader implications or engaging with more conceptual reasoning

Derinalp (2021) and Too (2013) both emphasize that reflection is a developmental process that deepens over time. Derinalp found that novice teachers initially focused on technical aspects of teaching but, with sustained practice, began to integrate broader principles and philosophies into their reflections. Similarly, Too highlighted that reflection moves from surface-level recounts to analysis and transformation, emphasizing that deliberate scaffolding and structured support are crucial in this process. This aligns with the findings of my study, where reflective depth increased with sustained opportunities for engagement.

Castleberry et al. (2016) and Kosmidou and Sfyroera (2023) further support this notion, demonstrating that reflective depth increases over time when teachers are provided with clear frameworks and structured opportunities. Their studies show that reflection levels tend to progress when teachers engage in iterative practices. Similarly, Slade et al. (2019) emphasize that without explicit support and clear guidelines, reflective writing often remains superficial and teaching-centric, focusing more on technical aspects of practice rather than fostering deeper critical engagement.

Together, these studies underscore that reflection is a dynamic and iterative process, where teacher candidates progress from surface-level recounts to more evaluative and analytical reflections. This progression is essential for bridging the theory-practice divide, as written reflections provide insight into how teacher candidates begin to apply abstract concepts to their teaching practices. However, the extent to which these reflections connect theory and practice varies, revealing both progress and ongoing challenges in achieving deeper reflective engagement. The following section explores this interplay between theory and practice, examining how teacher candidates' written reflections illustrate their efforts to navigate and integrate these two dimensions of professional learning.

Theory-Practice Interplay in Teacher Candidates' Written Reflections

A significant insight from the findings is the dual movement between theory and practice in teacher candidates' written reflections. This interplay underscores the dynamic process of professional learning, where some reflections began inductively—drawing on practical experiences to inform theoretical understanding—while others followed a deductive path, applying theoretical concepts to specific teaching scenarios.

This theory-practice movement is most evident during practicum experiences, where teacher candidates face real-world challenges that test their theoretical knowledge. The practicum serves as a crucial bridge between the abstract and the concrete, offering a space where teacher candidates can experiment with applying educational theories in practice. As several scholars highlight, the practicum is essential for integrating theory with practical teaching knowledge (Cavanagh & Prescott, 2010; Maaranen & Stenberg, 2017; Schon, 1987; Vick, 2006). Reflective practice within the practicum can promote professional growth by helping teacher candidates move beyond theoretical knowledge into practical application, thereby reinforcing the interplay between abstract concepts and lived teaching experiences.

Research further underscores the importance of aligning practicum experiences with on-campus coursework to enhance reflective learning. Darling-Hammond (2006) and Tatto (1996) emphasize that best practices in teacher education involve strong collaboration between university and school staff, as well as field experiences that explicitly link theory to practice through action research and performance assessments. These best practices can support teacher candidates as they navigate the complex process of testing and adapting their theoretical knowledge in authentic classroom settings.

This dynamic movement between theory and practice becomes particularly evident in teacher candidates' written reflections during their practicum experiences. As they engage with real classroom scenarios, teacher candidates often begin with a practical recount of their teaching experiences before making connections to abstract theoretical principles. These reflective entries highlight the inductive process through which candidates draw insights from lived experiences to inform their understanding of educational theories.

For instance, Adrian observed that his students struggled with measurement concepts during a math lesson. He began with a practical recount of his attempts to scaffold learning but later referenced constructivist theories to justify the need for hands-on, inquiry-based learning. His reflection shows how teacher candidates use classroom experiences to validate theoretical ideas. This shift demonstrates an inductive path from practical teaching actions to theoretical insights. In other instances, teacher candidates applied theoretical knowledge to classroom scenarios to test their effectiveness in real-life contexts, demonstrating a deductive process. Riley applied the theoretical concept of language immersion by encouraging her students to use French spontaneously in class. Her reflection shows how she tested this theory in practice, evaluating its success based on students' spontaneous use of French during class activities. This deductive process illustrates how teacher candidates start with an abstract concept and assess its application in their teaching. Such reflective patterns align with Freire's (1970) concept of praxis, where action and reflection mutually inform and transform one another, and with Toom et al.'s (2015) framework of inductive and deductive reflective patterns. These findings also resonate with Schön's (1983a) emphasis on the reflective practitioner who integrates abstract concepts with lived teaching experiences.

Nonetheless, the reflections revealed a persistent theory-practice disconnect, a central concern in teacher education, and a key focus of this study's conceptual framework. While teacher candidates demonstrated a capacity to link theoretical knowledge to classroom practice, this connection was often surface-level and procedural, particularly at the understanding level. For instance, Adrian's acknowledgment of students needing more measurement practice reflected awareness but lacked detailed strategies informed by theoretical understanding. Conversely, reflections at the reflection level, such as Riley's evaluation of her French as a

Second Language class, showed greater integration of pedagogical theories with classroom outcomes, bridging the gap between abstract concepts and practical teaching scenarios.

Too's (2013) study draws on socio-cultural theory (Vygotsky, 1978) to explain how reflection is mediated through social interactions and contextual factors. The study demonstrates that online forums and weblogs facilitated reflection-on-practice, in-practice, and for-practice, helping pre-service teachers connect theoretical knowledge to classroom applications. This supports my finding that teacher candidates engaged in both inductive and deductive reflection, using practical experiences to inform their theoretical understanding and vice versa. The study also shows that structured reflective prompts helped pre-service teachers evaluate their teaching approaches and adjust them to better fit their learning contexts, reinforcing my observation of teacher candidates' efforts to bridge the theory-practice divide.

Reflections at the 'reflection' level further illustrate progress in bridging theory and practice, a key element of professional growth. Kerns' (2014) study analyzed English teacher candidates' research essays using Kember et al.'s (2008) framework. Similar to my study, a significant number of coded segments (40%) were at the middle levels, with understanding accounting for 33% and reflection for 7%. However, the distribution of segments across these levels differs notably between the two studies. In Kerns' study, reflections were drawn from longer research essays in which meaning units were distributed throughout the text, allowing for more sustained and coherent reflective narratives. In contrast, the teacher candidates in my study wrote shorter reflections—typically brief paragraphs capturing their immediate reflections on daily teaching experiences. Additionally, while I treated each reflective entry as a distinct meaning unit, Kerns' meaning units were coded within the broader structure of an essay. These

differences in the nature of the reflective tasks likely contributed to the varied distribution of reflections across the levels.

Similarly, Hanafi's (2019) study, which analyzed student teachers' journal entries, reported that most reflections were evaluative, focusing on self-judgment of teaching practices. Hanafi found that student teachers tended to reflect on whether their lessons were successful or unsuccessful, but their evaluations often remained confined to technical concerns, similar to Van Manen's (1977) concept of 'technical reflection.' She noted that while the reflective entries involved appraising teaching performance, they rarely engaged with broader evaluative reasoning, such as critiquing underlying assumptions or exploring alternative approaches. This mirrors findings from my study, where reflections at the understanding level frequently described teaching practices without analyzing their broader pedagogical implications.

Slade et al. (2019) also found that most reflections remained at the understanding level, accounting for 56% of the coded segments, with only 18% at the reflection level. They noted that teacher candidates often demonstrated a surface-level grasp of concepts, applying theoretical knowledge without deeper evaluative engagement. However, my study reported a much higher proportion of reflections at the reflection level (57.3%), suggesting that teacher candidates in my context were better supported or more predisposed to engage in evaluative reflection. This difference may be attributed to the specific prompts, scaffolding, and reflective frameworks used in each study. For example, Slade et al. (2019) emphasized that the lack of clear frameworks can result in reflections that focus narrowly on technical aspects of teaching without encouraging deeper critical engagement. This underscores the importance of context-specific factors, such as program design and reflective prompts, in shaping the depth and quality of reflective engagement.

This study demonstrates that reflective writing fosters the interplay between theory and practice, helping teacher candidates move toward bridging the persistent theory-practice divide. Despite differences in distribution, all three studies—Kerns (2014), Hanafi (2019), and Slade et al. (2019)—support this finding, showing that reflections at the understanding and reflection levels often involved similar evaluative reasoning. These reflective practices suggest that teacher candidates across studies are making incremental progress in their professional growth by bridging abstract pedagogical knowledge with real-world classroom applications.

However, the limited presence of critical reflection across these studies highlights the ongoing challenge of fostering deeper, transformative engagement in reflective writing. While emotional and contextual factors occasionally appeared in teacher candidates' reflections in my study, moving beyond surface-level recounts requires more deliberate engagement with these influences. The next section explores how emotions and situational dynamics shape teacher candidates' reflective practices and their ability to navigate the complexities of classroom experiences.

Emotions and Contextual Factors in Reflective Practices

The emergence of emotional and contextual factors in teacher candidates' reflections highlights their growing awareness of the relational complexities of teaching. Although these factors appeared occasionally in their written reflections, they played a significant role in shaping how teacher candidates navigated classroom dynamics and adapted their teaching practices to meet students' needs. These reflections often revealed teacher candidates' engagement with emotional complexities, which influenced their decision-making and contributed to their adaptive expertise. For instance, Taylor's reflection on modifying her science lesson to accommodate students' emotional needs highlights the intersection of cognitive and affective

dimensions in reflective practice. Her ability to adjust her teaching in response to students' emotional states demonstrates how emotions shape reflective engagement and inform professional growth—a core component of effective teaching.

This finding aligns with Mälkki's (2019) assertion that emotions are central to reflection, not only as triggers but also as guides for deeper engagement with experiences. Mälkki emphasizes that emotional discomfort often precedes meaningful reflection, prompting individuals to question their assumptions and consider alternative perspectives. In this study, teacher candidates' reflections frequently demonstrated this process, where emotional responses to classroom events sparked deeper analysis of their teaching practices. For example, Riley's reflections on student engagement in her French lesson were influenced by her emotional reaction to students' unexpected use of the language, leading her to evaluate her instructional strategies more critically. These examples illustrate how emotional experiences serve as powerful catalysts for reflective engagement, encouraging teacher candidates to bridge the gap between theory and practice.

Too (2013) also highlights the dual role of cognitive and affective dimensions in reflective practices. His study found that pre-service teachers often reflected on their emotional responses to literary texts and classroom interactions, which influenced their understanding and teaching strategies. Similarly, in this study, teacher candidates' reflections were shaped by emotional reactions to classroom dynamics, such as Taylor's adjustment of her science lesson to address students' emotional needs. Too's use of socio-cultural theory emphasizes that emotional scaffolding through interactions and feedback plays a crucial role in developing reflective practices, reinforcing Mälkki's (2019) argument that emotions are central to deeper reflection.

Browning and Korthagen (2023) and Korthagen et al. (2013) further elaborate on the role of emotions in reflection by emphasizing the importance of emotional resilience in teacher development. They argue that reflective practice fosters emotional awareness and enhances teachers' ability to manage emotional challenges in the classroom. This aligns with the findings in this study, where teacher candidates' reflective writing demonstrated an emerging capacity to manage emotional complexities in teaching, thereby cultivating adaptive expertise. For example, Taylor's emotional awareness prompted her to modify her approach to meet students' emotional needs, reflecting an increasing ability to balance instructional goals with relational dynamics in the classroom.

Van Manen (1995) similarly emphasizes the relational and emotional dimensions of teaching, arguing that teaching involves constant negotiation of relationships and emotions. In this study, teacher candidates' reflections provided evidence of this relational dimension, where emotional responses to classroom situations led them to adjust their teaching practices. For instance, Taylor's awareness of her students' emotional states not only prompted her to modify her lesson plan but also deepened her understanding of the relational aspects of teaching. This relational adaptability reflects Van Manen's concept of pedagogical tact, where teachers respond intuitively and thoughtfully to the needs of their students.

Mälkki's (2019) concept of emotional scaffolding also applies here, as teacher candidates' reflective writing indicated that they were not only reacting to emotional situations but also developing strategies to manage these emotions constructively. Emotional scaffolding involves creating safe spaces for teachers to reflect on emotionally charged experiences, which can lead to deeper, transformative insights (Mälkki, 2019). In the present study, reflective prompts and journal entries provided teacher candidates with structured spaces to process their

emotional experiences, contributing to their professional growth. This supports Korhonen et al.'s (2020) argument that providing emotional scaffolding in teacher education programs can enhance teachers' emotional resilience and reflective capacity.

The findings also suggest that contextual factors, such as the nature of the reflective task, influence the depth of reflection. For example, in Derinalp's (2021) study, participants engaged in structured reflections across multiple phases of their teaching practice, providing more opportunities for sustained reflective engagement. In contrast, my study focused on shorter, daily reflections, which may have limited teacher candidates' ability to engage in extended evaluative reasoning. This difference highlights the importance of designing reflective tasks that encourage sustained engagement with both theoretical and practical dimensions of teaching.

Despite these promising dynamics, the limited occurrence of critical reflection (6.2%) indicates persistent challenges in fostering transformative engagement. Mezirow's (1991) transformative learning theory positions critical reflection as a mechanism for questioning assumptions and fostering professional growth, yet achieving this depth often requires deliberate scaffolding and mentorship. As Brookfield (1995) and Russell (2005) argue, moving beyond technical and practical concerns to engage with broader ethical, social, and cultural dimensions necessitates structured opportunities and guided support. These findings suggest that while the reflection level represents progress, critical reflection remains an aspirational goal for many teacher candidates, reinforcing the need for teacher education programs to address this gap.

Critical Reflection: Evidence of Transformation

Despite these promising dynamics, critical reflection in teacher candidates' reflections remained rare (6.2%), underscoring persistent challenges in fostering transformative insights. Reflections at this level involved questioning assumptions, addressing issues of equity, and

integrating theory with practice. Cameron's reflection on rote learning methods and her shift toward more meaningful, student-centered strategies exemplified this level of reflection, demonstrating a fundamental change in her teaching philosophy. Such reflections align with Slade et al. (2019), who noted that critical reflection often involved changes in personal beliefs and a commitment to culturally responsive teaching practices. Similarly, Roux et al. (2012) observed that practicing teachers often struggled to move beyond descriptive and understanding levels without structured support and familiarity with reflective writing practices.

Van Manen (1977) positioned critical reflection as the highest level of reflective practice, emphasizing the need to engage with the ethical, social, and relational dimensions of teaching. He argued that reflection should move beyond technical adjustments to address the values and moral considerations that underlie educational decisions and interactions with students.

Hatton and Smith (1995) described critical reflection as the most sophisticated form of reflection, requiring educators to critique their assumptions and analyze the social, cultural, and political influences on their teaching. Their framework emphasizes that critical reflection must go beyond personal experiences to consider external factors that shape educational outcomes.

Boud et al. (1985) viewed reflection as a holistic process that involves returning to experiences, processing emotions, and re-evaluating knowledge. Their framework highlights the emotional and contextual dimensions of reflective practice and stresses the need for transformative learning through critical engagement with past experiences.

Korthagen (2001) developed a cyclical model of reflection that connects theory and practice through six levels, ranging from action to mission. His model emphasizes the role of values, identity, and purpose in reflective practice, suggesting that critical reflection should

address how educators' core beliefs and values influence their teaching and their responses to broader societal challenges.

Across these frameworks, critical reflection is consistently positioned as a process that moves educators beyond technical and practical adjustments toward engaging with the underlying ethical, social, and political structures that shape teaching and learning. These frameworks highlight the transformative potential of critical reflection, as emphasized in Mezirow's (1991) transformative learning theory, which suggests that shifts in perspective and professional growth occur when individuals engage in deep, critical examination of their beliefs and assumptions. In my study, instances of critical reflection, though rare, illustrated this potential. For example, Cameron's shift in teaching philosophy reflected her growing awareness of equity issues, suggesting that reflective practice can foster meaningful pedagogical transformation when teacher candidates are supported in moving beyond surface-level observations.

Participants in Kosmidou and Sfyroera's (2023) study similarly acknowledged the transformative nature of reflective writing, noting that it helped them shift focus from surface-level observations to critical evaluations of their teaching. This mirrors the rare but significant instances of critical reflection in my study, where teacher candidates reconsidered their teaching approaches and philosophies. However, achieving critical reflection often requires deliberate scaffolding, as suggested by scholars (among others, Brookfield, 1995, 2017; Browning & Korthagen, 2023; Jara & Russell, 2023) who argue that mentorship, peer discussions, and guided frameworks are essential for moving reflections beyond technical and practical concerns.

Such reflections illustrate the potential of reflective practice to foster meaningful pedagogical transformation. However, these instances remain exceptions, indicating the need for

teacher education programs to provide explicit training, mentorship, and iterative opportunities for reflection to support teacher candidates in achieving critical levels of engagement. The transformative potential of critical reflection, as highlighted by Slade et al. (2019), underscores its importance for fostering equity-focused teaching. For instance, their study found that teacher candidates who critically reflected on teaching students in poverty often developed enhanced cultural competence and greater sensitivity to diversity. These findings resonate with the critical reflections observed in my study. The instances of critical reflection on equity and cultural dynamics suggest the potential for reflective practices to foster culturally responsive teaching. Programs should prioritize discussions on social justice and inclusion, encouraging teacher candidates to critically examine their biases and practices.

In sum, the interplay between theory and practice observed in teacher candidates' reflections underscores the importance of reflective writing as a bridge between abstract concepts and practical application. While many reflections demonstrated evaluative insights and connections to theoretical frameworks, the limited presence of critical reflection highlights the challenges of fostering transformative thinking. The centrality of emotions and contextual factors in reflective practices further emphasizes the relational and adaptive aspects of teaching, calling for intentional scaffolding and sustained opportunities to support deeper engagement.

CHAPTER 7: CONCLUSION

In theory, theory and practice are the same. In practice, they are not.

– Benjamin Brewster (1882)

*What we call the beginning is often the end. And to make an end is to make a beginning.
The end is where we start from.*

– T.S. Eliot (1942)

This chapter begins with a summary of this doctoral study. Following this, I present a discussion of the study's contributions to research on teacher candidates' reflective practices within Initial Teacher Education (ITE) programs and its implications for teacher education. I then address the limitations of this study that should be acknowledged. The chapter concludes with reflections on my learning journey as a researcher and educator, considerations for future research directions, and final concluding remarks.

At the heart of this study were three interrelated research questions that framed the investigation into how teacher candidates understand, enact, and demonstrate reflective practice within an Ontario ITE program. The first question explored how candidates conceptualize reflection, revealing the varied and evolving ways in which they make sense of this term. The second question focused on the enactment of reflexive praxis, examining how reflection was woven into their experiences across coursework and practicum. The third question analyzed the evidence of reflection in their written practicum reflections, offering insights into the depth and quality of their reflective thinking. These questions collectively informed the study's constructivist and critical orientation, illuminating how reflection is not only understood but also lived, situated, and shaped by the broader institutional and pedagogical context of teacher education.

Summary of Study

Using a qualitative case study methodology, this study focused on exploring the reflective practices of teacher candidates within an Ontario ITE program. Reflective practice has been recognized as a critical component of teacher education, with the potential to bridge the disconnect between theoretical knowledge and practical application. Despite its importance, there is a notable gap in understanding how teacher candidates perceive and engage in reflective practice, particularly within the context of Ontario's enhanced ITE programs implemented in 2015.

For this study, I adopted a constructivist paradigm, emphasizing the social construction of reflective practices (Bandura, 1977; Dewey, 1933; Kinsella, 2006, 2010; Piaget, 1970; Van Manen, 1995; Vygotsky, 1978). The participants were teacher candidates enrolled in their final year of an Ontario ITE program, with the exception of one participant who recently graduated. Data were collected and analyzed through thematic analysis (Braun and Clarke, 2022) of semi-structured interviews, and content analysis of reflective journals of teacher candidates following Kember et al.'s (2008) framework.

In addressing my first research question, I noticed that teacher candidates varied significantly in their understanding of reflection in the ITE program. The findings revealed a spectrum of interpretations, ranging from superficial notions of reflection as a routine practice to deeper, more transformative understandings of reflection as a critical and adaptive process for professional growth. Many teacher candidates viewed reflection as a means of continuous improvement, closely tied to problem-solving and refining instructional strategies.

I suggest that this variability highlights the influence of teacher candidates' personal beliefs, prior experiences, and program structures on their understanding of reflection. Notably,

the variability in interpretations is often aligned with the level of guidance provided by mentors and faculty. Those who experienced explicit scaffolding and opportunities for collaborative dialogue exhibited a more nuanced grasp of reflective practice, connecting it to broader professional goals and pedagogical theories.

In addressing the second research question, the findings revealed a multifaceted engagement with reflection that was influenced by both personal and systemic factors. Teacher candidates often described reflection as a means to adapt and refine their instructional strategies in response to student needs and classroom dynamics. However, the depth of this engagement varied widely, with some demonstrating a surface-level compliance with program requirements, while others engaged in deeper, critical reflection. A recurring theme was the role of mentorship and institutional structures in shaping these practices. Participants who had access to supportive mentors and collaborative opportunities within their ITE programs were more likely to enact reflexive practices that integrated both theoretical knowledge and practical application. Conversely, systemic constraints, such as rigid schedules and a lack of consistent guidance, often limited the scope of reflection to immediate, task-oriented feedback.

In analyzing teacher candidates' written reflections, addressing research question three, the findings revealed varying levels of reflective depth, categorized into habitual action, understanding, reflection, and critical reflection. While many reflections demonstrated a functional understanding and focused on immediate problem-solving or task completion, fewer exhibited the transformative qualities associated with critical reflection. Teacher candidates who engaged in deeper reflection often linked their experiences to broader pedagogical theories and demonstrated an awareness of the complexities of teaching practice. Recurring themes included the influence of mentorship, opportunities for structured reflection, and the role of emotional and

contextual factors in shaping reflective depth. The analysis highlighted that structured prompts and guided frameworks were effective in scaffolding deeper reflective practice. These findings underscore the importance of creating intentional spaces for critical reflection in Initial Teacher Education programs to support teacher candidates' professional growth.

In the discussion, I highlighted the need for a clearer conceptual framing of reflection within ITE programs. While participants acknowledged the value of reflection, its potential as a transformative practice was often limited by time constraints, inconsistent mentoring, and insufficient exposure to critical reflection models. To address this, I argue for the intentional integration of established reflective frameworks (e.g., Korthagen and Vasalo, 2005; Hatton and Smith, 1995), enabling teacher candidates to progress beyond habitual action toward critical self-awareness and professional inquiry. These findings underscore the importance of embedding structured and contextually relevant opportunities for reflection in ITE programs to foster adaptive and reflective practitioners.

Contributions to Research

This study makes several significant contributions to the field of teacher education research, particularly in understanding reflective practices within Ontario's enhanced ITE program. With its emphasis on critical reflection as a cornerstone, the program aims to develop reflective capacities in teacher candidates and foster a critical stance toward teaching and learning. Through its exploration of teacher candidates' reflective practices, the study offers critical insights into how the program's emphasis on developing reflective capacities and fostering a critical stance has influenced participants' experiences and professional growth.

The research explores the nuanced ways in which teacher candidates perceive and enact reflection, addressing gaps in the literature regarding the alignment between theoretical

frameworks of reflection and their practical application in educational contexts. By shedding light on the program's impact, this study highlights key areas of success, such as enhanced awareness of reflective practices among teacher candidates, while also revealing challenges, including inconsistent mentoring and limited opportunities for critical reflection. These findings contribute to the broader discourse on the role of structured, contextually relevant frameworks in fostering meaningful reflective practices, ultimately supporting the development of adaptive, critically reflective practitioners in Ontario and beyond.

One significant contribution lies in the examination of reflective depth using Kember et al.'s (2008) levels of reflection. This approach offers a comprehensive understanding of how teacher candidates move from habitual action to critical reflection, enriching the discourse on reflective practice as a developmental process. By analyzing teacher candidates' written reflections, the study offers evidence of the varying depth and quality of reflection, contributing to ongoing discussions about assessing reflective writing in teacher education programs.

The study also contributes to the understanding of the dual role that mentors and professors play in shaping teacher candidates' reflective engagement. It highlights how these roles can act as both enablers and barriers to reflective practice. On the one hand, mentors and professors often facilitated deeper reflection by providing constructive feedback, modeling reflective practices, and fostering an environment conducive to critical inquiry. On the other hand, their approaches sometimes hindered reflective engagement, particularly when feedback was overly prescriptive, lacked nuance, or prioritized task completion over critical analysis. This duality enriches the discourse on the complexities of reflective practice within teacher education, offering new insights into the interplay between mentorship, instructional support, and the development of reflective capacities.

Furthermore, the findings provide actionable insights for enhancing ITE programs, suggesting structured and contextually relevant opportunities for teacher candidates to engage in meaningful reflection. This research not only advances theoretical perspectives on reflection but also informs practical strategies for fostering adaptive and reflective practitioners, bridging the gap between research and practice.

Implications for Teacher Education

Exploring how teacher candidates perceive and enact reflective practice provides meaningful insights into ITE programs and offers valuable implications for enhancing teacher preparation. ITE programs must prioritize reflective practices that challenge teacher candidates to engage with systemic inequities and explore solutions to promote educational equity. By integrating frameworks such as Freire's (1970) concept of praxis, Kember et al.'s (2008) levels of reflection, and Hatton and Smith's (1995) models of critical reflection, programs can encourage teacher candidates to examine their assumptions, confront biases, and critically analyze the ethical and cultural dimensions of their teaching. These practices prepare teacher candidates to become transformative practitioners committed to equitable and effective education.

To foster deeper engagement, ITE programs should diversify reflective practices beyond traditional written formats. Incorporating activities such as multimedia projects, journaling, discussions, and collaborative group reflections ensures reflection resonates with teacher candidates' lived experiences and individual learning styles. Research by Hobbs (2007) and Russell (2013) emphasizes the importance of adopting flexible, authentic reflective formats, while Philp-Clark and Grieshaber (2024) demonstrate that collaborative reflection through peer groups and communities of practice enhances reflective depth. These methods provide teacher

candidates with opportunities to engage with diverse perspectives and develop mutual accountability, ultimately supporting their professional growth.

Connecting reflection to real-world teaching challenges is another critical consideration for ITE programs. Reflective tasks should explicitly bridge the theory-practice gap by aligning classroom realities with theoretical concepts. Darling-Hammond (2006) underscores the importance of reflective practices that integrate practical teaching experiences with pedagogical theories, enabling teacher candidates to view reflection as a valuable tool for professional development rather than a theoretical exercise. This alignment helps teacher candidates address real-world challenges more effectively and develop a deeper understanding of their practice.

Creating environments where teacher candidates feel safe to explore uncomfortable truths and challenge assumptions is essential for meaningful reflection. Programs should equip mentors and professors with strategies for dialogic and critical reflection, encouraging teacher candidates to engage deeply with social, cultural, and ethical dimensions of teaching. *Mälkki's (2019)* research highlights how addressing both cognitive and emotional dimensions of reflection fosters transformative learning and builds emotional resilience, enabling teacher candidates to navigate complex teaching contexts.

Assessment of reflective practices should emphasize depth, critical engagement, and practical application rather than rigid adherence to criteria. Rubrics should focus on the reflective process over the product, encouraging teacher candidates to prioritize personal and professional growth. Wright and Bolitho (2007) advocate for designing reflective assessments that challenge preconceptions and foster professional insights. By redefining assessment criteria to support growth, ITE programs can empower teacher candidates to engage in meaningful and impactful reflection.

Flexible and progressive frameworks are crucial for supporting teacher candidates' reflective development. Frameworks such as Kember et al.'s (2008) levels of reflection and Hatton and Smith's (1995) models provide foundational scaffolding, enabling teacher candidates to build confidence and gradually advance from descriptive to evaluative and critical reflection. Brookfield (2017) and Van Manen (1991) emphasize the value of adaptable approaches that allow reflection to evolve dynamically, supporting teacher candidates as they progress through their practicum and professional growth.

Finally, encouraging teacher candidates to explore the broader systemic dimensions of education prepares them for transformative practice. Integrating reflections on social justice, inclusivity, and systemic influences equips teacher candidates with the skills and perspectives necessary for equitable teaching. Van Manen (1997) and Freire (1970) stress the importance of connecting reflective practices to broader societal contexts, enabling teacher candidates to become adaptive, critically reflective educators and agents of change.

Limitations

This study's limitations stem from its context and methodological choices, which, while deliberate, introduce constraints on the applicability and scope of its findings. The study was conducted within the context of a single teacher education program, which may limit the generalizability of the findings to other institutions in Ontario. Although the detailed description of the program provided in the study offers contextual insights, the experiences of teacher candidates in other regions or institutions with varying pedagogical frameworks may differ significantly. Expanding the study to include multiple institutions could enhance the applicability of the findings.

Time constraints inherent in the study's design also present a limitation. The data collection was limited to a fixed period during the practicum, which may not have allowed sufficient time for participants to fully explore or demonstrate critical reflection. The data primarily encompasses reflections from the practicum phase, limiting the ability to observe the longitudinal development of reflective practices throughout the entire duration of the program. Including data from the early practicum, for instance, could have provided a broader perspective on the evolution of reflective skills and the impact of institutional scaffolding on teacher candidates' reflective growth. A longitudinal design extending into the first years of teaching would also have allowed for a richer examination of how reflective practices are sustained and adapted over time.

Institutional and contextual factors further shaped the reflective practices observed in the study. For instance, the influence of mentors, professors, and programmatic structures on shaping reflections was evident but varied among participants. Variability in mentorship quality and the nature of reflective tasks assigned likely influenced the depth and authenticity of teacher candidates' reflections, highlighting the complexity of isolating individual factors in reflective development.

These limitations provide valuable insights for future research. Expanding the scope to include longitudinal designs and diverse contexts could further illuminate the complexities of reflective practices and their role in teacher education. Despite these constraints, the study contributes meaningfully to the understanding of reflective practices within ITE programs and offers a foundation for ongoing inquiry into the development of critically reflective educators.

Suggestions for Future Research

This study opens several avenues for future research to refine, expand, and build upon its findings on reflective practices within ITE programs. A significant opportunity lies in conducting longitudinal studies that track teacher candidates over the entire span of their ITE program and into their early years of teaching. Such research could illuminate how reflective practices evolve with experience, transitioning from technical and descriptive reflection to more critical and transformative engagement. Additionally, longitudinal studies could reveal whether teacher candidates sustain reflective practices as professionals and how their reflections adapt to address broader ethical, cultural, and systemic dimensions over time.

Future research could also explore reflective practices in diverse contexts, examining how cultural, institutional, and pedagogical variations influence the nature and depth of reflection. Comparative studies across countries, regions, or teaching disciplines would provide valuable insights into how different environments shape reflective engagement. For instance, researchers could investigate whether teacher candidates in programs where reflection is not formalized or assessed demonstrate similar reflective patterns as those in structured programs. Such comparative research would enhance the understanding of how reflective practices can be effectively integrated into teacher education globally.

Another important area of inquiry is the use of diverse reflective modalities. This study primarily focused on written reflections, but future research could examine how teacher candidates engage with other formats such as verbal reflections, video analyses, and collaborative discussions. Investigating the impact of different modalities on the authenticity and depth of reflection could inform the design of reflective tasks that resonate with candidates' learning preferences and professional contexts.

Replicating the use of reflective frameworks, such as Kember et al.'s (2008) levels of reflection, in various educational contexts could further validate and adapt these models. Future studies might compare reflective depth across different types of tasks, such as journal writing versus video reflections, and incorporate interviews to explore the factors that support or hinder reflective engagement. Additionally, there is a pressing need to clarify and operationalize the concept of reflection itself. Research into how teacher candidates make meaning during reflective activities, the explicit connections between reflection and learning, and how these practices influence their ability to foster reflective thinking in their students would contribute to a more comprehensive understanding of the role of reflection in teacher education.

Another promising avenue involves investigating the outcomes of non-mandatory reflective practices. Studies could explore whether teacher candidates engage more deeply with reflection when it is voluntary rather than required or assessed, shedding light on the role of intrinsic motivation in reflective engagement. Relatedly, research could focus on the relatively rare occurrence of critical reflection, examining how teacher education programs can better scaffold and support candidates to develop transformative reflective practices. This might include analyzing the roles of mentorship, emotional resilience, and dialogic feedback in fostering deeper engagement.

Extending research to include experienced educators could provide insights into how reflective practices evolve across the career lifespan. For instance, follow-up studies could investigate whether the reflective habits cultivated during ITE programs are sustained as teachers gain more experience. Exploring the factors that support or diminish reflective engagement in experienced educators would offer a more nuanced understanding of the long-term impact of ITE programs.

Lastly, interdisciplinary approaches could bring fresh perspectives to the study of reflection. By drawing on fields such as psychology, sociology, and cultural studies, researchers could examine how individual, institutional, and societal factors shape teacher candidates' reflective practices. This multidisciplinary lens could inform the design of teacher education programs that better prepare reflective and adaptive educators capable of navigating the complexities of teaching.

By addressing these areas, future research can deepen our understanding of reflective practices, refine existing frameworks, and enhance the preparation of critically reflective educators. These studies would not only contribute to the theoretical discourse on reflection but also offer practical insights for improving teacher education programs worldwide.

Reflections and Concluding Comments

Reflecting on this research journey, I am reminded of the profound impact that teacher candidates' voices and experiences have had on shaping my understanding of reflection in ITE. As I described in the introduction of this dissertation, my professional experiences as a mentor and educator have fueled my interest in exploring how reflective practices contribute to teacher candidates' growth. This journey has deepened my appreciation for the complexities of reflective practice and its pivotal role in bridging the gap between theory and practice.

Throughout this process, I have come to see reflection not just as a professional skill but as a transformative tool for fostering critical thinking, self-awareness, and adaptability. Engaging with the theoretical frameworks of Dewey, Schön, Freire, and Kember, among others, allowed me to situate this study within a broader discourse that honors the nuanced, multifaceted nature of teacher learning. Collaborating with my supervisor, committee, and peers has further refined

my understanding, pushing me to think critically about the intersections of reflective practice, teacher education, and social justice.

This study's findings underscore the need for ITE programs to create spaces that support teacher candidates in exploring their beliefs, challenging assumptions, and engaging with the social, cultural, and ethical dimensions of teaching. Witnessing how reflection shapes professional growth has been both inspiring and humbling. It has reinforced my commitment to designing and advocating for programs that prioritize meaningful and critical engagement with reflective practices.

As I conclude this dissertation, I carry forward a renewed sense of purpose. I am reminded that reflection is not a destination but an ongoing process—one that requires courage, vulnerability, and a willingness to confront discomfort. Teacher candidates, like all educators, need the freedom to explore their professional identities and the support to navigate the complexities of their roles. It is my hope that this research contributes to a growing body of work that champions reflective practice as a cornerstone of teacher education and professional development.

What began as a personal exploration into the challenges and potential of reflection has grown into a broader commitment to fostering adaptive, critically reflective educators. This study directly responds to the gaps identified earlier in this dissertation—particularly the limited focus on how teacher candidates themselves perceive and experience reflective practice, and the overly simplified ways reflection is often conceptualized and operationalized in ITE. Through a constructivist and critical lens, and grounded in a conceptual framework that problematizes the traditional theory-practice divide (Pinar, 2005), this research has illuminated the dynamic and often messy interplay between personal experience, theoretical insight, and professional practice.

By interrogating how teacher candidates navigate this complexity through reflection, the study challenges dichotomous thinking and contributes to a growing body of literature that calls for integrated and relational approaches to teacher education (e.g., Russell, Korthagen, Britzman, Zeichner). The findings suggest that meaningful reflection cannot be reduced to a technical skill; rather, it must be cultivated as a dialogic, situated, and sometimes uncomfortable process of becoming. The insights gained reaffirm my belief that education is, at its core, a deeply relational and transformative endeavor. I am grateful for the opportunity to contribute to this conversation and look forward to continuing this work in the years to come.

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APPENDIX A: Information Letter



Université d'Ottawa / University of Ottawa

Unpacking Reflection in Teacher Education: How Teacher Candidates Perceive,
Experience, and Develop Reflective Practice

Research Team:	<p>Wafaa Morsy, PhD (candidate) Faculty of Education University of Ottawa 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5</p>	<p>Awad Ibrahim, PhD (Supervisor) Faculty of Education University of Ottawa 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5</p>
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Invitation to Participate: I am writing to invite you to participate in a research project that involves connecting with initial teacher education students in Ontario. You are invited to participate in an interview for the above-mentioned study conducted by Wafaa Morsy, PhD (Education) candidate from the University of Ottawa under the supervision of Professor Awad Ibrahim. It has been approved by the Research Ethics Board at the University of Ottawa.

Purpose of the Study: The purpose of this research project is to explore how reflective practice is understood and practiced by teacher candidates in the enhanced teacher education program that took effect in 2015 in Ontario. Additionally, it aims at examining the reflective capacity of initial teacher education (ITE) students, and how effective it is in taking forward their developing classroom practices. Eventually, I aspire to finding small and sustainable ways to improve and support their growth competence. I am carrying out this project as a graduate student, currently working toward completing my PhD in Education at the University of Ottawa.

Participation: If you wish to participate in this study, please reply to the invitation email with your availability to participate in a one-on-one interview and acceptance to provide your written reflections. Reflective journal to the researcher to examine as part of this research project. Kindly note that for the purposeful sampling technique I am using to recruit my study participants, you will be asked to answer a short demographic survey to provide personal information such as name, academic status, cohort, teaching subject(s), ethnicity, and gender. As indicated in the demographic survey you will receive, you have the option to skip any question that you do not feel comfortable answering. Your responses will be treated with the utmost confidentiality and used solely for research purposes. Nonetheless, due to the limited space in the research study, kindly note that not all volunteers who complete the demographic questionnaire will be selected to participate.

Interviews - The interview will be a semi-structured conversation-style session. You will be asked a few open-ended questions about your perceptions, learning about and engagement with reflective practice. The interview will take place via Zoom or Microsoft Teams at a time that is most convenient to you. We

will ask that you select a location for the interview that is private and convenient for you. Wafaa Morsy will conduct the interview with you from a private office. The interview will take approximately 45 minutes to complete. With your consent, the interview will be audio and video-recorded and transcribed by Wafaa Morsy or a professional transcriptionist for analysis.

Focus Groups: Focus groups may be employed as a valuable means of gathering qualitative data. Focus groups involve 1-2 hours of facilitated group discussions with a selected number of participants, allowing for an exploration of diverse perspectives and insights. Focus groups provide an opportunity to gather in-depth and rich qualitative data by facilitating group discussions. Participants can share their experiences, opinions, and perspectives on the research topic, generating a breadth of information.

Written reflections - student teachers need to provide reflections written in their teaching practice record book or online and submit photocopies/links of the reflections to the researcher. Examples of written reflections could be reflections they wrote during their practicum (before, during, after class), reflections in courses that required them to reflect on their teaching experiences, reflections they wrote for their mentors/supervisors, or reflections written in similar settings for the purpose of reflecting on their practice. Reflection Topics may include any topic relevant to teaching and learning. For example, classroom management, teaching methods, and techniques, application of course contents to the teaching practice, lesson planning, learning activities, ...etc.

Risks: There is little risk associated with your involvement in this study. However, because questions will ask for your personal opinions, perceptions or experiences of reflective practice during your study in the teacher education program, you may feel uncomfortable sharing some of your personal insights on the topic. Thus, you do not have to respond to any questions that make you feel uncomfortable, and you may refuse to participate in the study at any time. Your responses, recordings and transcripts will only be shared with the researchers of this study and will remain confidential.

Benefits: You may or may not benefit directly from this study. The findings from this study will help to a) provide information to the research community regarding reflective practice in the enhanced initial teacher education program in Ontario, and b) may contribute to ongoing development initiatives in the province of Ontario. The opportunity to discuss your own practices may also provide you with time to reflect on your own experiences as well as personal and professional learning.

Confidentiality and Anonymity: The information that you share in the interview and written reflections will remain strictly confidential. It is important to note that while we will take every precaution to protect the confidentiality of the information shared during the focus group discussions, there are inherent limits to anonymity and confidentiality within this setting. As other participants will be present in the group, they will become aware of the information shared by each participant. While we will strictly instruct all participants to maintain confidentiality and not disclose any information outside of the focus group, we cannot guarantee that participants will fully comply with these instructions. As a result, there is a possibility that some information shared within the group may become known to others participating in the discussion.

However, all data gathered will be kept on a secure, password-protected computer. Any research findings that may be used in research related to my doctoral studies, or research-related writings, will maintain participants' anonymity. Only the members of the above-mentioned research team will have access to the data. Data will be conserved for ten years after the publication of research findings. After this time, data will be shredded and appropriately discarded.

Voluntary Participation: Your participation in the study is **voluntary**. You can withdraw from the study at any time and/or refuse to answer any questions without any negative consequences. If you choose to withdraw, all of your contributions up to the time of withdrawal will be deleted and excluded from the study. If you are interested in receiving a summary of the study results, you will be given the option to indicate this interest on the consent form.

If you are interested in participating in this research study, please contact Wafaa Morsy to obtain additional information about the interview and submission of written reflections. As mentioned, the interview will be scheduled at a time that is convenient for you. We will email you a copy of the consent form to review, and your consent will be obtained prior to the interview.

For questions, concerns or complaints about the research ethics of this study, contact the Protocol Officer for Ethics in Research at 613-562-5387 (ethics@uOttawa.ca).

Thank you for taking the time to read this information letter and for considering your participation in this study.

Sincerely,

<p>Wafaa Morsy, PhD (candidate) Faculty of Education University of Ottawa 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5</p>	<p>Awad Ibrahim, PhD (Supervisor) Faculty of Education University of Ottawa 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5</p>
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APPENDIX B: Sample of Informed Consent Form



Université d'Ottawa / University of Ottawa

Unpacking Reflection in Teacher Education: How Teacher Candidates Perceive, Experience, and Develop Reflective Practice

Research Team:	Wafaa Morsy, PhD (candidate) Faculty of Education University of Ottawa 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5	Awad Ibrahim, PhD (Supervisor) Faculty of Education University of Ottawa 136, Jean-Jacques-Lussier Private Ottawa, Ontario K1N 6N5
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Invitation to Participate: I am invited to participate in the research study entitled *Unpacking Reflection in Teacher Education: How Teacher Candidates Perceive, Experience, and Develop Reflective Practice* conducted by Wafaa Morsy in partial fulfilment of the requirements for the degree of Doctor of Philosophy of Education.

Purpose of the Study: I understand that the purpose of this research study is to gain a fundamental understanding of the circumstances in which ITE students learn, and the impact this learning has on developing pre-service teachers' reflective practices.

Participation: My participation will consist essentially of 1-2 audio & video recorded sessions of approximately 45 minutes during which I will be interviewed. The interviews will be scheduled for a date and time that are convenient for me. I agree that the researcher may contact me, via email, to ask any follow-up questions or to verify the content of the interview. Additionally, I may be selected to participate in a 1-2 hours focus group audio & video-recorded virtual discussion session that will be scheduled for a date and time that are convenient for all participants. Also, I will be providing my reflective writings as requested.

Risks: I have received assurance from the researcher that every effort will be made to respect these personal reflections in the writing and reporting of the research. If at any time I wish to end the interview, and/or withdraw from the study I may do so.

Benefits: My participation in this study will provide information to the research community regarding reflective practice in the enhanced initial teacher education program in Ontario, and may contribute to ongoing development initiatives in the province of Ontario. The opportunity to discuss my own practices may also provide me with time to reflect on my own experiences as well as personal and professional learning.

Confidentiality and Anonymity: I have received assurance from the researcher that the information I share will remain strictly confidential. No data, such as school name or school board name, will be used that might identify me. I can decide whether or not my name can be used in the reporting of the research (choose either option below). The contents of the interview and written reflections will be used for the proposed research study as well as future research articles in the area of teacher education. However, I was informed that there are inherent limits to anonymity and confidentiality within the focus group discussions. As other participants will be present in the group, they will become aware of the information shared by each participant. While all participants will be instructed to maintain confidentiality and not disclose any information outside of the focus group, it cannot be guaranteed that participants will fully comply with these instructions. As a result, there is a possibility that some information shared within the group may become known to others participating in the discussion.

Conservation of data: The audio recordings and transcripts will be kept in a secure manner on a password-protected computer. Hard copies of the transcripts will be kept in a locked filing cabinet. The data will be destroyed after ten years.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I may withdraw from the study at any time and/or refuse to answer any questions. If I choose to withdraw, all of my data gathered until the time of withdrawal will be destroyed. However, as data from focus groups are interdependent, it is not possible to withdraw an individual participant's contributions.

Acceptance: I, _____, agree to participate in the above research study conducted by Wafaa Morsy of the Faculty of Education, University of Ottawa, which research is under the supervision of Dr. Awad Ibrahim. I understand that by accepting to participate I am in no way waiving my right to withdraw from the study.

I **AGREE** to have the data used for completion of the proposed doctoral study and any future research writing by the student researcher.

Please specify: My real name can be used in the reporting of the research.

I do **NOT** agree. I would like to remain anonymous. I agree. My name can be used.

If I have any questions about the study, I may contact Wafaa Morsy and/or Dr. Awad Ibrahim at the numbers mentioned above. If I have any ethical concerns regarding my participation in this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland Street, Room 154, (613) 562-5387 or ethics@uottawa.ca.

There are two copies of the consent form, one of which is mine to keep.

Participant's signature: _____ Date: _____

Researcher's signature: _____ Date: _____

APPENDIX C: Sample Interview Protocol ²

Thank you for taking part in my study, as you are aware I am working on my dissertation, the topic is on reflective practice, and I want to get your perspective of reflection and your experiences in this program. I have some questions that I want to ask you, but please feel free to elaborate on your answers, the more you can remember and tell me, the more I will be able to represent your views in the dissertation.

Type	Main Questions	Follow-up/Sub Questions
Ice-breaking	How are you today? How was your day at school? What was your undergraduate degree? What led you to teach and come into this program?	
Learning in the ITE program	What are the three main things you learned in the program?	
Perceptions/Understanding of Reflection	When was the first time you heard the term reflection? What do you understand by the term 'reflection'? What do you expect to get from reflections? What do you understand by the term reflective practice applied to teaching?	
Time / When to reflect	Do you reflect after your teaching sessions? When do you usually reflect? When do you write your reflections? Do you consider yourself a reflective person? Why?	
How to reflect	How do you reflect? How did you reflect on your practice in the school? How do you write your reflections? Do you know what to reflect on or what to write in your reflections? What do you usually reflect on? How do you choose what to write in your reflections? Do you think you write good reflections? Why?	Describe an incident in your teaching practice that led to reflection.
Learning how to Reflect	Did anybody teach you how to write reflections or how to reflect? Who? How did your cooperating teacher or supervising lecturer help you to reflect? How did the staff from the practicum unit/faculty of education help you with writing your reflections? What were the courses you were doing along with your field experiences? Have these courses helped you to reflect? How, Give me some examples. How did you reflect on your practice in the courses that you do? Can you give me some specific ways that you reflected in a particular course?	How does the feedback from your supervisor help you to reflect? • Do you think your supervisor could do more? • Do you think student teachers should be taught how to write reflections and how to reflect?

² Questions are adapted from previous studies by Hanafi (2019), Pedro (2005), Priddis & Rogers (2018), and Tham (2020).

	<p>Who else worked with you in this program? How do they help you to reflect on your practice? Can you tell me if the mentor helped you to reflect on your practice? How did they help you to do so? Where else did you get the opportunity to reflect?</p>	
Issues found in reflections	<p>What do you write in your reflections? What kind of things do you reflect on? What do you do about it?</p>	
Difficulties in writing reflections	<p>Do you find it difficult to reflect? How about writing them? What do you find challenging about reflecting? Do you find writing reflections is easy? Why? What do you think will make reflecting much easier?</p>	
Effects of writing reflections	<p>Do you think the practice of writing reflections during practicum helped you to be reflective? How? If 'No' why not? How does writing reflections make you feel? Do you think after going through the 40/80 hours of practicum that you have improved in writing your reflections?</p>	
Values of writing Reflections	<p>What do you do with your reflections? \How did you use these reflections? How has writing reflections affected your teaching? Do you know why you are asked to write reflections during your practicum/courses? Do you feel that you need to write reflections? Do you feel that you need to reflect? What are the benefits of writing reflections? Do you think writing reflection is useful? Why? What did you like MOST about self-reflecting? What did you like LEAST about self-reflecting? What suggestions would you make for improving your self-reflection in future semesters?</p>	<p>How do you think you can better incorporate theory and practice?</p>
Reflections revisit	<p>Do you think you will ever read your reflections again? How do you think they can be of any use for your future practice?</p>	
Additional Comments		

APPENDIX D: Demographic Information Questionnaire

Thank you for participating in my dissertation study on reflective practice. Your perspectives and experiences in this program are invaluable to my research. To enhance the understanding of the participants in my study, I kindly request your assistance in providing some demographic information by answering the following questions. Please note that you have the option to skip any question that you do not feel comfortable answering. Your responses will be treated with the utmost confidentiality and used solely for research purposes.

Thank you once again for your time and contribution to this study.

- 1) My Name:
- 2) My undergraduate degree (s) (please specify):
.....
- 3) Current Status:
 - a. 1st-year ITE student teacher
 - b. 2nd-year ITE student teacher
 - c. Recently graduated (please specify the date):.....
- 4) ITE Cohort:
 - a. Comprehensive School Health Cohort (P/J division)
 - b. Global Education Cohort (P/J and J/I divisions)
 - c. Imagination, Creativity, and Innovation Cohort (P/J and I/S)
 - d. Urban Communities Cohort (J/I AND I/S)
 - e. Second Language Education Cohort (P/J and I/S)
- 5) Division:
 - a. Primary/Junior (P/J): K to Grade 6
 - b. Primary/Junior (P/J)- FSL: K to Grade 6
 - c. Junior/Intermediate (J/I): Grade 4 to 10
 - d. Intermediate/Senior (I/S): Grade 7 to 12

6) Teaching Subject(s):

Please indicate the subject(s) you are currently teaching or planning to teach. You may select multiple options if applicable.

- a. English/Language Arts
- b. Mathematics
- c. Science
- d. Social Studies/History
- e. Foreign Language (specify language: _____)
- f. Fine Arts (e.g., Music, Art)
- g. Physical Education
- h. Other (please specify: _____)

7) Ethnicity:

Please select the option that best describes your ethnicity.

- a. Asian/Asian American
- b. Black/African American
- c. Hispanic/Latinx
- d. White/Caucasian
- e. Native American/Indigenous
- f. Multiracial/Multiethnic
- g. Other (please specify: _____)