Reflective Learning in Education Courses:
Instructors' Conceptions and
Students' Perceived Engagement

by

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Thesis Submitted in Partial Fulfillment of the

Requirements for the Degree of

Doctor of Philosophy

in the

Educational Technology and Learning Design Program

Faculty of Education

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SIMON FRASER UNIVERSITY

Fall 2022

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Abstract

Fostering reflective learning has been imperative across disciplines in higher education because of its importance for professional development and lifelong learning. Despite its potentials, however, there is lack of conceptual clarity and models of good practice for developing students' reflective skills. In this manuscript-based dissertation, I explore conceptualizations of reflective learning and students' perceived engagement. Data were collected from instructors of education courses and students who were taking those courses in different programs. A total of 32 instructors and 274 students participated through interview and questionnaire respectively.

A systematic review of the reflective learning literature indicated qualitatively distinct conceptualizations ranging from reflective learning as understanding content and experience to examining sociopolitical contexts of education. Strategies for promoting reflective learning include modeling and explicit instruction, journal and autobiographic writing, and topical writing and discussion.

A phenomenographic analysis of interview data indicated four categories of instructors' conceptions of reflective learning. That is, instructors who were teaching education courses in a Canadian university understood reflective learning as critical engagement with content, as improving professional practice, as identity development and as developing critical consciousness.

A principal component analysis of survey data from students showed four dimensions of students' perceived engagement: transformative, personal, relational, and metacognitive reflection. Subsequent multivariate analysis of variance (MANOVA) showed statistically significant differences in students' perceived engagement in reflective learning due to differences in their instructors' conceptions and the type of program they were attending. That is, students whose instructors understood reflective learning as critical engagement with content reported significantly less engagement in transformative and personal reflection, and students' whose instructors understood reflective learning as developing critical consciousness reported less engagement in metacognitive reflection. In addition, results indicated that graduate and preservice teacher education (PTE) students reported engaging in more transformative reflection than undergraduate students. Also, PTE students' perceived engagement in personal reflection was significantly higher than undergraduate students.

The findings have implications for faculty development, pedagogical practice which include integrating reflection in courses and communicating their underlying values, and further research on the nuances of learning design to foster reflective learning.

Keywords: Reflective Learning; Conceptions; Student Engagement;
Phenomenography

To my son, Leul

Acknowledgements

This dissertation would not have been possible without the support of so many people throughout my doctoral program. I would like to thank my supervisor Dr Engida Gebre who has provided unwavering support throughout my doctoral study and has tirelessly helped to refine my ideas. You pushed and challenged not only my thinking but also my work habit, without which reaching this stage could not have been easy. Likewise, I thank my committee members, Dr Ann Chinnery and Dr Kevin O'Neill, for their valuable feedback and suggestions throughout the process; your expertise and insights have improved my dissertation.

I am also indebted to research participants, i.e., instructors and students, who committed their time to the study by participating in interviews and completing the questionnaire. This research was completed because of your willingness to help.

My friends, Esteban Morales and Suzanne Reinhardt, I thank you for reviewing my research instruments. My gratitude also extends to Elias Woldemariam, Minyibel Alemu, Tizazu Asmare, and Belay Geletu and their families. Living and studying far away from family and friends is not easy. Had it not been for your friendship and continuous moral support, the past few years would have been difficult.

Last, but not least, I would like to thank my family as well as my best friend Abrham Kebede who live abroad but regularly checked my well being and consistently encouraged me to focus on my study.

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List of Acronyms

CEC	Critical Engagement with Content
DCC	Developing Critical Consciousness
IDD	Identity Development
IPP	Improving Professional Practice
MANOVA	Multivariate Analysis of Variance
MCR	Metacognitive Reflection
PCA	Principal Component Analysis
PDP	Professional Development Program
PRR	Personal Reflection
PTE	Preservice Teacher Education
RLR	Relational Reflection
SD	Standard Deviation
TFR	Transformative Reflection

Chapter 1.

Introduction

Educators have long been promoting the importance of engaging students in reflective learning experiences. Although there are benefits for students at all levels of education, scholarship on reflective learning has largely focused on post-secondary education. Discussions of the benefits of reflective learning for higher education students cover a wide range of issues which include, *inter alia*, use of effective learning strategies (Bourner, 2003; Ertmer & Newby, 1996; Harrison et al., 2003; Huang, 2021; Lucas & Tan, 2013; Moon, 2001); professional identity development (Dempsey et al., 2001; Urzúa & Vásquez, 2008); graduateness and employability (Kember et al., 2008; Ryan & Ryan, 2013; Smith et al., 2007; Wharton, 2017); and reflectiveness as a habit of mind (Mezirow, 1990,1994; Rose, 2013). These commonly attributed benefits are briefly discussed in the subsequent paragraphs.

A considerable amount of the literature has focused on proposing and describing reflective learning as an important learning strategy. Reflective learning is often considered an integral part of learning to learn (Bourner, 2003; Cambra-Fierro & Cambra-Berdún, 2007; Lucas & Tan, 2013) that helps students to progress and improve the quality of their learning experiences (Harrison et al., 2003). It is argued that reflection enhances students' engagement in metacognitive and self-regulation activities (Ertmer & Newby, 1996; Huang, 2021; Moon, 2001). In an article discussing the characteristics of expert learners, Ertmer and Newby (1996), for instance, illustrated the crucial role "reflection serves as the link between metacognitive knowledge and self-regulation" (p. 14). That is, reflection allows students to engage in self-questioning while planning, monitoring, and evaluating their approach to learning tasks. Reflective learning can enable students to develop a greater sense of ownership of their learning (Huang, 2021); give learners more time to process the material by slowing down the activity (Moon, 2001); and increase students' awareness and use of effective learning strategies (Ertmer & Newby, 1996). Reflection is generally considered an important learning strategy, for it engages students in thinking and reflecting not only on the subject matter content but also on their own effort and learning strategies.

Another importance of reflective learning relates to preparing prospective professionals for the world of work. Ewing et al. (2022) considered reflective learning "a human capability pertinent to all disciplines and professions" (p. 1), and it was thus included as one of the 21st century skills that youth should develop both for present and future jobs and careers (Joynes et al. cited in Brownhill, 2022). In teacher preparation, for example, opportunities to reflect on one's intentionality, responsibility and commitment are crucial for professional identity development. Urzúa and Vásquez (2008) stated that "reflection offers a unique opportunity to engage in active and meaningful decision-making, problem definition, exploration, and evaluation, and one that allows teachers to envision the future and to imagine themselves in that future" (p. 1945).

Being one of the key transferable skills that are required from higher education graduates (Smith et al., 2007), reflection is also central to the concept of graduateness (Steur et al., 2012; Wharton, 2017). Steur et al. (2012) described the essence of graduateness in terms of transformations in students and stated that it constitutes four elements: reflection, scholarship, moral citizenship, and lifelong learning. Using structural equation modelling on data collected from graduate and undergraduate students, Steur et al. (2012) reported that reflective learning underlies the other three elements of graduateness. In other words, reflective learning was found to have strong associations and influence in the model of graduateness that the authors tested using empirical data.

The foregoing discussions focused on the importance of reflective learning as a tool for effective learning and professional preparation for the world of work. In a somewhat different perspective, Rose (2013) argued for valuing reflection in non-instrumental ways. She argues the need to appreciate and value reflection as an end itself rather than as instrumental to achieving more practical and concrete ends. She suggested the need to understand reflection as a habit of mind and way of being that is worth preserving and fostering for its own sake. In trying to answer the question of why reflection matters, she stated:

> It is only by opening ourselves to reflection, according it value as a way of thinking and being, that we can counteract the prevailing influence of the technical mindset, with its privileging of efficiency and instrumentalism, and thus achieve balance and fulfillment in our lives. (p. 35)

The purposes of reflective learning focusing on improving learning outcomes in disciplinary areas and preparing prospective graduates for effective professional practice are sound educational goals. However, the complexities of challenges in our contemporary world demand that educational programs should also incorporate learning experiences that go beyond subject matter knowledge and professional practice and extend to our daily lives and the society at large. This may point to the perennial quest for relevance in curriculum and pedagogy that calls for making connections between classroom learning and real-life. In an increasingly uncertain and unpredictable world, the role of reflective learning becomes salient for it enables us to deal with the dilemmas and uncertainties that we face in different contexts. As Kahn (2014) noted, "in order to flourish in a radically unknowable world, the exercise of reflexivity becomes an essential underpinning capacity" (p.1012). The issue here is that such a crucial capability is not intuitive and authentic opportunities for developing the capacity to engage in critical reflection are necessary (Coulson & Harvey, 2013; Gelfuso, 2016). Here the role of higher education is crucial considering that students' reflective ability is dynamic and changeable by means of concrete educational experiences (Bruno & Dell'Aversana, 2018; Dyment & O'Connell, 2010). That is, in an enabling learning environment, students can engage in critically reflective learning.

Whether the purposes are attuned to academic learning, professional preparation, or agency in personal and social life, students can benefit from reflective learning when they are provided with relevant educational experiences. However, despite the presence of reflective learning in the scholarship of teaching and learning in higher education for several decades, evidence indicates that it is not adequately fostered in practice (Chaffey et al., 2012; Dohn, 2011; Huang, 2021; Mair, 2012; Power, 2016). Huang (2021) asserted that reflective learning remains more of a rhetoric, albeit one that is gaining a strong foothold in post-secondary education. Others also pinpointed weak facilitation and teaching of reflection (e.g., Chaffey et al., 2012) and gaps in actual reflective learning experiences (e.g., Dohn, 2011).

Hence, considering the lack of clarity in the meanings and purposes of reflective learning as well as the rhetoric-reality gap in post-secondary students' reflective learning opportunities, an investigation into the perspectives and experiences of reflective learning would provide better insights for designing learning environments.

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1.1. Statement of the Problem

Scholars offer different explanations for students' minimal engagement in reflective learning. Some argue that the diversity of interpretations of the construct itself and related conflations has been problematic (Chaffey et al., 2012; Chappell, 2007; Ewing et al., 2022; Fook et al., 2006). That is, the prevalence of often elusive and vague descriptions of reflective learning may limit the opportunities for practitioners and researchers to address it adequately. Also, such lack of clarity about what it entails often leads to using it in non-reflective ways (Chappell, 2007). For instance, activities involving summaries of readings or simple descriptions of events or issues may be considered reflective engagement (Gay & Kirkland, 2003). When used in such ways, reflective learning degenerates into an umbrella term that encompasses several types of thinking and learning processes.

On the contrary, others doubt whether the diversity of interpretation matters at all. Gardner et al. (2006) suggest the wide range of ways in which reflection is conceptualized ought to be celebrated. Still for others (e.g., Farrell, 2021; Watanabe, 2021), the prevalence of diverse interpretations of reflective learning is an opportunity to invite educators to engage in meta-reflection and develop their own conceptualizations pertaining to their contexts rather than adopt frameworks developed by others. These differing views pertaining to conceptualization are among the motivating factors for exploring instructors' conceptions of reflective learning and their relations with students' engagement: the focus of this study. Whether instructors adopt a particular framework of reflective learning or develop their own, it is presumed that the meanings they ascribe to reflective learning would provide valuable insights into their students' reflective learning experiences.

A related issue to the elusiveness of the concept of reflection is the lack of a coherent body of empirical evidence about strategies for teaching and assessing reflection in higher education (Gelfuso & Dennis, 2014; Risko et al., 2002). The inconsistencies in the meanings and purposes of reflective learning affect the facilitation process (Chaffey et al., 2012), and, as a result, little is understood about how reflective skills develop (Clará, 2015; Ertmer & Newby, 1996). In the context of teacher education, for instance, Risko et al (2002) observed that the literature provides very little guidance for facilitating reflective learning except for the thick descriptions of researchers' goals

and intentions. In an article that aimed at clarifying the ambiguous notion of reflection by closely examining the seminal works of Dewey (1933) and Schön (1983), Clará (2015) also concluded that "little is known about how reflection works, so this issue is completely open to further research" (p. 270).

Notwithstanding the conceptual ambiguity and claims of lack of empirical evidence, scholars have been suggesting and examining various kinds of tools and strategies for developing reflective learning. Among the common ones are critical incidents, case studies, journals, portfolios, oral interviews, tutorial discussions, diaries, autobiographies, dialogical exercises with peers or mentors, role plays, individual self-assessment tasks, and practical exercises (Finlay, 2008; Harrison et al., 2003; Moon, 2001; Mortari, 2012). Such studies and propositions provide valuable insights about tools and methods of fostering reflective learning in higher education. However, the use of tools or methods per se does not suffice for fostering reflective learning without a clear alignment between purposes, instructional strategies, and mediating tools. Finlay (2008) argued that the effectiveness lies not so much on the type of tool or method used but the way it is used. For instance, she suggested that mechanical use of these methods simply as educational requirements to reflect would not be effective. Rose (2013) also described structures and stepwise processes as "calls to unreflective action" than reflection (p. 104). This is suggestive of the important role of the design of learning experiences and actual enactment of those experiences in fostering reflective learning in higher education. Again, the way instructors design learning experiences can be related to their understanding or the framework of reflective learning they adopt in their courses.

The nature and focus of previous research is also an important consideration pertaining to the paucity of evidence and insights about students' reflective learning experiences. Many previous studies focused on determining the level of reflectivity by examining artifacts produced by the students (Gelfuso & Dennis, 2014; Lord et al., 2017; Nelson & Sadler, 2013; Thompson & Pascal, 2012). What is more, such research has largely been focused on the researcher's own practice (Fook et al., 2006). That is, educators incorporate a particular tool or method, such as journals or diaries, in their own courses and then examine the outcomes of their intervention. Such studies provide evidence of what works or do not work in a particular instructional context. Building on these studies, valuable insights can be gained by exploring students' perspectives of

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their own reflective learning experiences in a wider scope, encompassing more courses and programs in the field of education.

As indicated in the preceding discussion, given that a wide range of perspectives may be drawn upon in designing reflective tasks, it is presumed that instructors' conceptions could play a role in the nature of students' engagement in reflective learning. This is because the characterization and the nature of strategies used to promote reflection depend very much on how reflection is understood (Clará, 2015; Clará et al., 2019; Ewing et al., 2022). Indeed, several studies have been conducted on the relationships between instructors' conceptions and instructional processes (e.g., Kember & Kwan, 2000; Lam & Kember, 2006; Pajares, 1992). Nevertheless, there is a paucity of research on instructors' conceptions of the meaning and purposes of reflective learning, despite the bulk of theoretical work in the literature (Gelfuso & Dennis, 2014; Nelson & Sadler, 2013). Also, we do not know how the different ways instructors understand reflective learning influence the nature of students' engagement in reflection.

Besides the crucial role of instructors' conceptions, factors related to the learner can influence their engagement in reflective learning (Ryan & Ryan, 2013). One area of interest is the program levels that students attend. For instance, graduate students are expected to engage more in reflective learning because of their tendencies to evaluate their own learning experiences (Xiao et al, 2016). However, studies that examined program level factors reported contradictory results. Kember et al. (2000) reported significant differences between graduate and undergraduate health sciences students in the higher levels of reflection. On the other hand, in a study on the use of written and video journals for reflection on one's teaching, Frazier & Eick (2015) found that undergraduates were more reflective than graduates when using video journals. The findings from these two studies imply that program level influences are related not only to the background differences that students bring to the learning environment but also to the instructional strategies employed to foster reflective learning. This in turn implies that valuable insights can be gained by examining students' engagement in reflective learning across different programs in the field of education.

Thus, based on the foregoing discussions that focused on the crucial role of instructors' conceptions and related instructional approaches in the nature of reflective learning experiences students engage with, the aims of this dissertation are to: 1)

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understand instructors' conceptions of reflective learning; 2) determine students' perceived engagement in reflective learning; and 3) examine the relationships between instructors' conceptions and students' engagement in reflective learning.

1.2. Reflective Learning: Conceptual Background

In the literature, several terms are used under the umbrella of reflection. These terms which include reflective thinking, reflective learning and reflective practice are used sometimes interchangeably and at other times distinctively. I chose to use reflective learning given the context and scope of my study although other terms are also used while discussing the literature. This study focuses on course-based learning experiences in a university setting. Hence, because of the focus on designs for learning and students' engagement and experience, reflective learning better describes such experiences than the other terms. For instance, reflective practice is often used in professional and work contexts and puts emphasis on "reviewing past action in order to perform better the next time" (Moon, 1999, p. 92). Reflective learning is also preferred to reflective thinking since the latter implies covert mental processes. On the other hand, reflective learning entails representations of such thoughts in written, oral, or artistic forms. Furthermore, reflective learning is preferred to reflection as the latter is generic and could imply spontaneous and random responses to events and experiences. In the context of course-based learning experiences, however, reflective learning entails intentional and purposeful experiences with stated or anticipated outcomes.

Reflective learning has been theorized from a variety of perspectives ranging from progressive education to transformative education traditions. Early conceptualizations can be traced back to Dewey (1933) who is widely considered the progenitor of reflective learning and practice (Hebert, 2015; Howard, 2003; Huang, 2021). Dewey laid the foundation for the various perspectives and frameworks of reflective learning that exist today in different domains and contexts. For Dewey, reflection entails a purposeful and systematic inquiry of experiences focusing on problem solving (Howard, 2003; Huang, 2021). The focus on rational and evidence-based inquiry in his concept of reflection is clearly evident from the stages of reflective thinking he proposed. Dewey's five phases of reflection describe a scientific approach focusing on hypothesis testing. The stages also imply that the reflective process should aim at a conclusion. That is, reflection involves a systematic and interconnected thought

processes leading to solutions. Similar to Dewey, Clará (2015) emphasizes achieving coherence and clarity through reflection. Both Dewey and others who follow his framework describe reflective learning as a careful thought process aimed at resolving incoherent, perplexing situations that one encounters.

Although Dewey's (1933) work on reflective learning is foundational, critiques abound with regard to his focus on systematic problem solving. For instance, Rose (2013) argued that reflection differs from rational thought that is characterized by systematic, stepwise, instrumental processes with the aim of problem solving. Reflection, she argued, rather entails a dynamic and non-linear process that takes place spontaneously and organically. She described reflection as "form of deep thought that takes place in conditions of quietude and slowness" (p. 16). Depth and creativity are considered central to her notion of reflection. That is, reflection is deep in that it involves probing below the surface to unearth new perspectives. It also entails synthesizing random and often elusive ideas and materials to create new possibilities and perspectives. At the heart of Rose's (2013) conceptualization is also the private mental activity that reflection entails and the time and attention it requires. Throughout her book, she emphasized the importance of withdrawing from the social, chaotic, and stimulating environment and taking a quiet moment to engage in reflective thinking.

However, the notion of reflection as a private mental activity is critiqued from situated and sociocultural perspectives. Situated learning emphasizes the role of authentic learning environments and participation within a community of practice (Stoner & Cennamo, 2018). Accordingly, Dohn (2011) described situated reflection as "a relation between the agent and the world" and downplays the idea of reflection as a private mental or linguistic representation (p. 708). Warhurst (2008) also noted the importance of considering reflection as a social act so that it becomes more effective and critical. In such perspectives, the social processes involved in reflective learning, such as dialogue, are emphasized in understanding and promoting reflective engagement (Brockbank & McGill, 2007; Dohn, 2011; Warhurst, 2008).

Reflective learning has also been theorized as an important aspect of experiential learning theory. Kolb's experiential learning theory, which is rooted in the work of Dewey, Lewin, and Piaget, is distinguished from other theories in its emphasis on the central role experience plays in the learning process (Kolb, 1984; Kolb et al.,

2001). Kolb's theory describes a four-stage learning cycle: concrete experience, abstract conceptualization, reflection, and active experimentation (Kolb et al., 2001). Whereas the first two represent ways of grasping experience, the latter two represent ways of transforming experience. In a similar vein, Boud et al.'s (1985) framework of experiential learning includes two components: the experience and the reflective activity that follows the experience. In such a framework, reflection is the learner's response to the experience and involves recapturing, thinking about and evaluating it (Boud et al., 1985). In both theories by Kolb (1984) and Boud et al. (1985), reflection thus entails looking back, describing, examining, and making sense of one's experience.

Jack Mezirow's transformative learning theory provides another perspective on reflective learning (Mezirow, 1991; 1992; 1994; 2003). Mezirow defined transformative learning as "learning that transforms problematic frames of reference—sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets)—to make them more inclusive, discriminating, open, reflective, and emotionally able to change" (Mezirow, 2003, p.58). What is clearly evident in his several publications is that perspective transformation, which is achieved through critical reflection, is central to transformative learning. In other words, reflection engages students in critically examining the origins, nature, and consequences of taken-for-granted assumptions that are often acquired through cultural assimilation (Cranton, 2006; Mezirow, 1992; 1994). These assumptions or frames of reference can be related to a variety of issues ranging from paradigms in academic disciplines and occupational habits of mind to cultural biases and political orientations (Mezirow, 2003). Mezirow also described three types of reflection: content, process, and premise reflection. Although all types of reflection are important, perspective transformation can result from engaging in premise reflection that involves a critical examination of uncritically assimilated and distorted assumptions (Cranton, 2006; Mezirow, 1990).

In addition to the aforementioned frameworks, the temporal dimension is another factor that adds complexity to perspectives on reflective learning (van Manen, 1995; Warhurst, 2008). Much of the conceptual and empirical literature on reflection, particularly in programs such as teacher education and nursing, draws on the works of Dewey and Schön (Bognar & Krumes, 2017; Clará, 2015), and thus focuses on contemporaneous (reflection-in-action) and retrospective (reflection-on-action) reflection. The Schönian model, in particular, fails to recognize the importance of reflection before

or for action (Finlay, 2008; Greenwood, 1993; 1998; Thompson & Pascal, 2012). Whereas reflection-in and on-action require agents to reason from their actions to their intentions, reflection before action focuses on reflecting on one's intentions of what to do and how to do it before it actually occurs (Greenwood, 1993). Drawing on largely the Schönian model, the teacher education literature, for instance, has focused more on examining students' retrospective reflection on practicum experiences. This kind of model may provide students with limited experiences for dealing with situations that are beyond their immediate experience (Dyke, 2009). It is therefore important to consider numerous opportunities to engage with reflection so that students look not only backward but also inward, outward, and forward.

In a nutshell, one can identify different foci in frameworks of reflective learning such as the process, target, or purpose of reflective learning. For instance, whereas some consider the central place of the self in the reflective learning process as an important distinguishing feature (e.g., Atkins & Murphy, 1993; Boyd & Fales, 1983; Colomer et al., 2018; Fullana et al., 2016), others seem to have adopted a more outward orientation focusing on larger social and cultural assumptions and practices (e.g., Brookfield, 2009). Another focus is whether reflection occurs after, during, or before the event or practice. The emphasis of a framework could also be on the purposes and outcomes of reflective learning. For instance, Huang (2021) noted that purposefulness distinguishes reflective thinking from general thought processes. And the purposes can be understood in different ways, such as problem solving or perspective transformation.

Given the wide range of theoretical perspectives of reflective learning that entail varied processes and purposes, I understand them not as contradictory to each other or replacements of one by another but rather as complementary to each other. For instance, the sociocultural perspective that focuses on reflection with others is not necessarily contrary to the notion of reflection as a private mental activity. One would agree that both solitary and dialogical reflection are equally important and complementary aspects of reflective learning.

Different purposes for reflective learning may also be sought in different contexts. Although aiming for more transformative outcomes is necessary, reflective tasks with the goal of solving problems of learning and professional practice are all important. Also, inquiry turned back to the self is an important feature of reflective learning. That is,

students do not only question and challenge beliefs and assumptions embedded in course content and learning experiences, but they also explore, question, and make use of their own perceptions, cognition, and behavior in the learning process. Such reflective learning experiences can lead to confirmatory or transformative outcomes (Mezirow, 1991; 1992). After a critical assessment of experiences, the learner may affirm and validate his/her personal beliefs or develop new perspectives. The perspectives of reflective learning for different purposes are therefore acknowledged, and the interest in the present study is to explore those perspectives and the relations to students' reflective learning experiences.

The temporal conditions of reflective learning are also worthy of consideration. The contexts of research and practice could require us to focus more on one or the other. For instance, it would be appropriate to focus on reflection-in-action and reflection-on-action in studies of workplace learning or in-service professional development contexts. This is because reflection in such settings often targets practical situations. However, the context of this study is course-based classroom learning situations, and it thus focuses more on reflection before and for action. Although students may draw from and reflect on their personal background and experiences, performing a practical action is not considered as antecedent to engaging in reflective learning.

1.3. Outline of the dissertation

This introductory chapter began with a background to the problem by providing a brief discussion of the oft-cited benefits of reflective learning pertaining to learning, professional development, employability, and personal life. Then, by explaining the rhetoric-reality gap in reflective learning in higher education, the problems that this dissertation addresses are discussed focusing on conceptions, learning design and student engagement in reflective learning. The focus is on how instructors' conceptions of reflective learning influences students' engagement through the design of learning tasks. This is followed by a brief review of frameworks of reflective learning in the literature. Then, the outline of the dissertation is presented. In the last part of this chapter, brief description of contributions of authors of the manuscripts is provided.

In the literature, much effort has been expended to clarify what reflective learning entails. Yet there remain diverse ways of understanding and using it in various contexts.

As well, the use of different terms, models, and frameworks that purport to explain the meaning and process of reflection add more complexity and confusion. The second chapter therefore aims to synthesize the literature on conceptualizations of reflective learning and related instructional strategies from empirical studies. As a background to the systematic review, the chapter discusses conflating terms such as reflexivity and reflective practice with reflective learning. In addition, models of reflective learning including examples from hierarchical and procedural models are explored. Then, the procedures and results of the systematic review are presented. Using inclusion and exclusion criteria pertaining to the purposes of the dissertation, 53 articles are reviewed, and the range of conceptualizations of reflective learning and instructional strategies are identified.

Reflective learning is theorized and discussed from a wide range of perspectives. In the case of practical implementation, instructors are likely to choose one framework, terminology, or theory. Their choice, which often influences the nature of instructional processes, is likely to be influenced by their conceptions as well as value systems. Although the systematic review of the literature provides critical insights about the range of conceptualizations of reflective learning, there remains a need to understand instructors' conceptions of reflective learning before looking into the relationships between conceptions and students' ways of engaging in reflective learning. The third chapter, therefore, examines instructors' conceptions of reflective learning. Using a phenomenographic approach with interview data from 32 instructors who were teaching education courses, the third chapter presents a range of instructors' conceptions of reflective learning.

The focus of the fourth chapter is on students' perceived engagement in reflective learning. Previous studies on student reflection are largely qualitative, with a focus on analyzing learning artifacts to assess students' level of reflection. However, it is also important to examine students' perceptions of their reflective learning experiences. Although there exist frameworks and instruments for assessing reflective learning and practice, I developed a new survey that fits the purposes of this study. Based on an extensive review of the literature, the survey is tailored to education students attending programs at different levels and aimed at determining the dimensions of their perceived engagement in reflective learning. Hence, the dimensions of reflective learning resulting from a principal component analysis are discussed. An important part of this chapter, as

well as the dissertation in general, is explaining the factors that play a role in the ways that students engage in reflective learning. So, using findings from the third chapter, the relations between instructors' conceptions of reflective learning and students' perceived engagement are discussed in this chapter. In addition, the chapter discusses differences in students' engagement in reflective learning as a function of the programs they were attending, i.e., undergraduate, graduate, and preservice teacher education (PTE) programs.

The fifth chapter provides a general discussion of the findings presented in previous chapters. It mainly aims to integrate the results of the studies and draw implications. Accordingly, the chapter begins with a brief summary of the findings from the three studies. That is, a summary of categories of reflective learning, dimensions of student engagement in reflective learning, and the relations between instructors' conceptions and students' engagement in reflective learning are provided. Then, the findings are discussed focusing on two main themes: conceptualizations of reflective learning and students' reflective engagement. The implications of the findings for faculty development and instructional practice are also discussed. Lastly, three areas are suggested for further research.

1.4. Contributions of Authors

As stated in the earlier section, in this manuscript-based dissertation, three manuscripts are included. All the three manuscripts are based on my dissertation research project. Initially, I discussed the idea of manuscript-based dissertation with my senior supervisor, Dr. Engida Gebre at the start of my dissertation research. Once we outlined the research idea and what the three papers look like, I assumed a primary responsibility in framing the problem, collecting and analyzing data, and writing in all of the manuscripts. My supervisor and dissertation committee members have made valuable contributions throughout the process. Without their contributions, the dissertation would not have its current shape. In this section, I provide brief descriptions of contributions of authors to each manuscript.

The first manuscript has been submitted to a peer-reviewed journal. I assumed primary responsibility in all phases of the manuscript, which include framing the problem, searching and conducting the systematic review, and writing the manuscript. My

supervisor Dr Gebre has assisted me in all phases such as refining research questions, choosing databases, and ways of extracting data and approaches of analysis. He also provided me feedback on all versions of the manuscript. Dr Chinnery helped me by reading the manuscript and gave me very useful comments that improved the manuscript.

In the second manuscript, which is published in Higher Education Studies, I also assumed the primary responsibility in all the phases of research. I framed the problem, developed the interview guide, collected and analyzed data, and wrote the manuscript. Dr Gebre assisted me in all phases of the manuscripts. His insights on the coding process and feedback on all versions of the manuscript were very helpful. Dr O'Neill also assisted me in the analysis of the interview data and provided me feedback on the versions of the manuscript.

The third manuscript is submitted to a peer-reviewed journal. Like the previous two manuscripts, I assumed primary responsibility in all phases of the manuscript. I framed the problem, developed the survey, collected and analyzed the data, and wrote the manuscript. Dr Gebre helped me in all phases of the manuscript. He reviewed the survey to ensure its validity, consulted me on how to use findings from the second manuscript in the analysis of survey data, and provided feedback on all versions of the manuscript.

Chapter 2.

Reflective Learning in Education Courses: Conceptualizations and Instructional Strategies.

A modified version of this chapter has been submitted to a peer-reviewed journal as Bailie, A. L., Gebre, E. H., & Chinnery, A. Reflective learning in education courses: Conceptualizations and instructional strategies.

Abstract

Reflective learning is considered as crucial for advancing learning strategies, improving professional practice and engaging in lifelong learning. For this reason, developing reflective learning has been imperative for education of professionals across disciplines. Despite its potentials, however, there is lack of conceptual clarity and models of good practice for developing students' reflective skills. The purpose of this study is to critically review conceptualizations of reflective learning and related instructional strategies. The review was conducted on 53 empirical studies obtained through a systematic search of Education Source, ERIC and PsycInfo databases. The results indicate a range of conceptualizations of reflective learning including content understanding, evaluation of perspectives, review of practice, metacognition, and examination of sociocultural contexts of education. Instructional strategies are discussed in terms of objects and process of reflection. We propose a conceptualization of reflective learning that goes beyond developing professional competencies to addressing broader issues relevant to everyday life.

Key Words: Reflective learning; Conceptualization; Education Courses

2.1. Introduction

Reflective learning has been valued and recommended for equipping students with knowledge, skills and dispositions that are relevant to their academic and professional success. Some of the often-mentioned benefits of reflective learning include equipping students with soft skills and attributes that are required by employers (e.g., Harvey, 2016; Stefani et al., 2000), enabling learners to address problems of practice

(McGarr & McCormack, 2014), and making them empowered and informed decision-makers (Binks et al., 2009; Dyke, 2009). Stefani et al. (2000), for example, posited that reflective learning helps to develop students as flexible, adaptable, and responsible learners and professionals that the evolving world of work requires. In terms of learning strategies, reflective learning helps to engage students in thinking and reflecting not only about the subject matter content but also about their own effort, attitude, and dedication (Cambra-Fierro & Cambra-Berdún, 2007). By doing so, they can gain a better understanding of effective learning strategies and ways of using them in other contexts (Ertmer & Newby, 1996).

Despite its potentials, reflection is "a complex construct to define, scaffold and develop in the arena of higher education" (Roberts, 2016, p.32). Since Dewey's (1933) introduction of reflection in the literature on education, the concept and ways of developing reflection continue to be debated (Sableski et al., 2019). There exist multiple definitions, models, and frameworks of reflective learning. In addition, most of such literature is theoretical or conceptual (Clará, 2015; Pretorius & Ford, 2016; Tigelaar et al., 2017) and empirical evidence regarding how reflective learning is conceptualized and implemented is limited. Previous studies focused on tracing the development of reflection by analyzing the contents of reflection (Ryan & Ryan, 2013). Although assessing levels of reflection could tell us where students are, knowledge of strategies that led to the outcomes would provide more valuable insights.

These varying definitions and approaches in the theoretical literature, along with discrete and fragmented studies on particular strategies, point to the need for capturing and synthesizing conceptualizations of reflective learning and determining evidence-based strategies for supporting learners. Although various features of the learning environment and institutional structure play a role (Moon, 1999), the instructional approaches employed are key to engaging learners in reflective learning experiences that reach beyond their natural tendencies (Risko et al., 2009). Furthermore, research on teaching established the impact of teachers' conceptions of teaching, learning, and knowing on their instructional decisions and processes (Kember & Kwan, 2000; Pajares, 1992; Pratt, 1992). Similarly, the nature of learning activities selected and enacted to foster reflective learning could be related to educators' conceptions of reflection (Clará, 2015). Promoting reflective learning would be ill-informed without a clear conceptualization of reflection (Schmidt & Adkins, 2012).

The purpose of this study is, therefore, to systematically review and synthesize the literature on reflective learning in education courses. More specifically, we answer the following two questions: 1) What conceptualizations of reflective learning are evident from studies on education courses? 2) What instructional strategies were employed to foster reflective learning in those studies?

2.1.1. Conceptual Background

Reflective Learning, Reflexivity and Reflective Practice

Scholars often use varied terminologies related to reflective learning. The most common ones which are widely used interchangeably include reflective learning, reflexivity, and reflective practice. Studies on reflection often begin with the work of John Dewey who is considered as the originator of the concept (Alger, 2006; Clarà, 2015; Moon, 1999; Ryan & Ryan, 2013). Dewey (1933) defined reflective thought as: "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 conclusion to which it tends" (p.9). In his definition, Dewey emphasized ways of thinking that involve a conscious effort of examining and inquiring one's beliefs and ideas based on evidence and rationality. For him, reflection involves not simply a collection of ideas but a chain of thought in which one grows out of and supports another. The notion of systematic problem-solving pertaining to doubts and confusions (Alger, 2006; Hatton & Smith, 1995; Mezirow, 1991) through careful consideration of evidence is central to Dewey's conception of reflection. Clarà (2015), based on an analysis of the works of Dewey (1933) and Schön (1987), defined reflection as "a thinking process which gives coherence to a situation which is initially incoherent and unclear" (p.263). For him, the fundamental criterion in the concept of reflection is the transformation of an incoherent situation to a coherent one. This conception is closely related to Dewey's notion of resolving doubts through reflection. Dewey contends that reflection is distinct from other forms of thought in that it involves "a state of doubt, hesitation, perplexity, mental difficulty in which thinking originates" (p.12). What is evident from these definitions is that reflective learning is triggered by uncomfortable situations, such as doubt, perplexity, incoherence, or uncertainty.

Brockbank and McGill (2007) emphasized transformative outcomes of reflective learning resulting from dialogue and intentionality. They defined reflective learning as "an

intentional social process, where context and experience are acknowledged, in which learners are active individuals, wholly present, engaging with others, open to challenge, and the outcome involves transformation as well as improvement for both individuals and their environment" (p.36). In his transformative view of learning, Mezirow (1991) also defined reflection as "the process of critically assessing the content, process or premise(s) of our efforts to interpret and give meaning to an experience" (p.104). In Mezirow's view, critique of assumptions is a central part in the concept of reflection. He argued that the concept of reflection includes not only problem solving but also problem posing that involves assessing and challenging taken-for-granted assumptions.

Scholars consider different thought processes and practices as reflective learning. On top of these varied interpretations, the use of different terms related to reflective learning makes the subject more complex. Whereas terms like reflective learning, reflexivity and reflective practice are often conflated and used interchangeably, some scholars (e.g., Finlay, 2008) argue for the necessity of making distinctions. However, reflection is found to be a general term (Bruno et al., 2011; Moon, 1999) that can be used interchangeably with any of these related terms. On the other hand, slight distinctions are often made regarding reflexivity, reflective learning, and reflective practice.

For Thompson and Pascal (2012), reflexivity relates to looking back on oneself, as in a mirror, and entails self-analysis. In the process of self-analysis, the focus is on recognizing one's influence on the situation. Similarly, Larrivee (2008) posited that reflexivity involves examining personal histories and influences. On the other hand, Ryan (2015) emphasized action in the concept of reflexivity. She argued that reflexivity entails deliberative action following reflection. From this perspective, reflection is considered a necessary component of reflexivity. However, Alexander (2017) doubts the merits of distinguishing reflexivity by its action orientation which is generally implied in the concept of reflection. She then suggested that adding the term reflexivity to discussions of reflection creates undue redundancy.

Reflective practice is the term most conflated with reflective learning in the literature. Despite the wide use of these terms interchangeably, researchers also make important distinctions. Reflective practice is often used in relation to practices and actions especially professional practices (Fisher, 2003). It includes evaluation of, action

related to, and improvement of practice (Moon, 2007). These conceptions relate to Schön's (1987) reflection-in-action and reflection-on-action. But, in the context of higher education, reflection is not only associated with professional practice, or courses leading to professional practice but also with day-to-day experiences of courses that students are engaged in (Brockback & McGill, 2007). The emphasis on learning experiences and practical experiences as the focus areas of reflective learning and reflective practice respectively does not necessarily imply a dualistic notion of learning and practice or theory and practice. It is conceivable that there could be learning when reflecting on practice and there could be practice when engaged in reflective learning. It rather denotes that the notion of reflective practice focuses predominantly on retrospective evaluation (Coward, 2011) in the context of professional practice (Watts, 2019). With regards to reflective learning, the notion of experience is not related to the time served or merely to direct participation in events (Coward, 2011; Rodgers, 2002). Rather, it is related to students' interaction with the environment which includes the teacher, students, and course materials and resources.

2.1.2. Models of Reflective Learning

Scholars have developed several models and frameworks with the purpose of clarifying the construct and suggesting strategies for developing learners' reflective capacity. The most common approach is to represent reflection in hierarchical levels. Examples of such models include those developed by van Manen (1977) and Hatton and Smith (1995). van Manen (1977) identified three levels of reflection: technical, practical, and critical. Technical reflection focuses on practical application of educational knowledge, theories, and principles for the purpose of achieving objectives. The assumption is that such theories and principles are supplied by empirical research for teachers to faithfully apply them (Nelson & Sadler, 2013), and thus the focus is on the efficiency and effectiveness of means to achieve ends. At the second, practical level, the focus is on making practical choices based on one's interpretation of the nature and quality of educational experience. That is, reflection involves the process of analyzing and clarifying multiple perspectives for the purpose of orienting practical actions. van Manen (1977) considered critical reflection to be the highest level of deliberative rationality as it assumes the political and ethical meaning of social wisdom. It involves questioning the worth of knowledge and its social conditions. Similar to van Manen

(1977), Hatton and Smith (1995) identified four distinct levels of reflection: technical, descriptive, dialogical and critical. Hatton and Smith's (1995) levels range from non-reflective, descriptive reporting of events or literature (technical level) to critical reflection that entails taking account of broader social, historical, and political contexts.

Other models represent procedures or sequential stages in which learners engage in the reflective learning process. In most cases, the stages encompass experiences that trigger the reflective process and extend to the outcomes of reflection. Dewey's (1933) five phases of reflection belong to this approach. Dewey posited that the reflective process takes place through phases of suggestion, intellectualization, guiding idea or hypothesis, reasoning, and testing. He further illustrated that each phase could lead to the development of the other though one does not necessarily follow the other in a fixed order. Similarly, Boud et al. (1985) suggested three main stages of the reflective process that could involve cycles and repetitions between stages. These stages are returning to experience, attending to feelings, and re-evaluating experience.

Models that belong to both hierarchical and procedural approaches contribute to efforts of clarifying the concept of reflection and detailing related instructional processes. Jay and Johnson (2002) noted that a model is useful as it captures ways of scaffolding reflection that can be used in different contexts. As such, they provide valuable insights regarding what reflective learning entails and how it might be fostered in educational programs. However, educators challenge the role of such models in resolving existing conceptual and methodological concerns regarding reflective learning. For instance, Coward (2011) argued that hierarchical levels of reflection are irrelevant. The risk of overemphasizing technical and methodological issues and neglecting issues of purpose could also be high due to the prevalence of a wide array of frameworks (Finlay, 2008; Hebert, 2015).

2.1.3. Reflective Learning in Education Courses

Reflection has been embedded in teacher education programs following the influential work of Donald Schön (Risko et al., 2002; Thompson & Pascal, 2012). Schön theorized reflection as a kind of knowing through and in the actions of our actual professional practices. Building on Schön's (1987) work, reflection in teacher education has been used to embrace different approaches and strategies. One approach focuses

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on exploring and changing students' prior beliefs and assumptions about teaching and learning (Alger, 2006; Martin, 2005). This approach assumes that prospective teachers should not only develop skills and strategies of teaching but also become aware of their own values that influence teaching (Martin, 2005). This is important because their unarticulated prior knowledge and understanding about teaching and learning, which they have acquired in part during their experiences as students, influence their professional beliefs and dispositions (Alger, 2006; Ebenezer et al., 2003). Reflective learning activities thus aim to engage students in examining and possibly changing those prior beliefs. Reflective learning experiences also provide preservice teachers with opportunities of connecting theory with practice (Clarà et al., 2019; Nolan, 2008). This approach underscores the importance of linking what Aubusson et al. (2010) identified as two anchors that promote student teachers' reflection: contextual and conceptual anchors. Contextual anchors are related to elements of the school teaching environment, such as curriculum, teaching methods, the nature of the class, etc. Conceptual anchors are educational philosophies, theories and principles that are learned from literature.

What is common to these different approaches is that they promote reflective learning as a means to inform and/or improve teaching practices. However, despite the rationale for its importance and strategies for developing it, "reflection in teacher education still remains more a promise than a reality" (Clarà et al., 2019, p.175). This rhetoric-reality gap has been attributed to lack of conceptual clarity and models of good practice for developing students' reflective skills (Clarke, 2011; Jay & Johnson, 2002; Nelson, & Sadler, 2013). Educators may shy away from reflective learning in their plans because of ambiguities in what it entails and how it can be operationalized. Quinton and Smallbone (2010) contended that insufficient time is dedicated to reflection due to a failure of embedding it into courses at the program level. In cases where it was embedded in courses, reflection tended to be narrow and technicist, focusing on evaluation and improvement, rather than transformation of professional and personal knowledge (Connell, 2014). There is also a tendency to use reflection tasks mainly for the purpose of assessment rather than learning thereby resulting in students' unproductive focus on earning grades with limited personal learning (Roberts, 2016). These limitations in fostering reflective learning, along with scant research on effective

pedagogical strategies (Gelfuso & Dennis, 2014; Jay & Johnson, 2002), calls for a systematic review of empirical studies on reflection in education courses.

2.2. Method

This study aimed at reviewing the empirical literature on reflective learning in education courses. To this end, the literature search and screening was conducted in three stages. First, we did abstract searches of three databases; namely, Education Source, ERIC and PsycInfo using search terms ('reflective Learning' OR 'reflective practice' OR 'reflexivity') AND ('education courses' OR 'higher education' OR 'teacher education'). The search resulted in 1,650 hits. After the exact duplicates were removed, we had 1,245 studies for further screening.

In the second stage, abstracts of studies were screened using inclusion/exclusion criteria: we focused on empirical studies conducted on reflective learning, in the context of higher education, in education courses, and peer-reviewed. Studies that were conducted in contexts other than higher education such as K-12 schools or work-place learning were excluded. Furthermore, articles that were merely conceptual and theoretical were excluded. A bibliography mining was also carried out on articles that were included for final analysis. Accordingly, this review was conducted on 53 empirical studies on reflective learning. The majority (88.5%) of studies were found to be in the area of preservice teacher education.

We conducted inductive analysis using a spreadsheet for extracting data from the studies. We extracted study purposes and contexts, conceptualizations of reflective learning and instructional strategies. More specifically, conceptualizations and instructional strategies were assigned codes based on the meaning they represent or communicate.

2.3. Results

2.3.1. Conceptualizations of Reflective Learning

We identified five categories of conceptualizations ranging from reflective learning as a process of meaning making, or conceptual understanding, to examination

of wider sociocultural and political contexts of education. Each of these categories is discussed below.

Understanding Material or Experience

Reflective learning is often understood as a systematic process of meaning making out of one's experiences, either from direct practical or secondary (mediated) experiences. Whether the learning experience involves lectures, discussions, readings or field placements, reflection is conceived as making sense of the experience and understanding materials. Drawing from Dewey's (1933) and Moon's (1999) work, reflective learning is understood as a form of active mental processing with the purpose of understanding learning materials and experiences (e.g., Clarke, 2011; Fund, 2010; Mantle, 2018). The meaning or understanding can be developed through reflection on practicum experiences (e.g., Mantle, 2018), linking course concepts to experiences (e.g., Welch & James, 2007), or making connections between personal experiences and learning contents (e.g., Braun Jr & Crumpler, 2004). Essentially, these studies all emphasize the central idea of meaning making and developing conceptual understanding as an important learning goal.

Among the limitations of this way of conceptualizing reflective learning is that it perpetuates the very notion of technical rationality that reflection aims to counteract in that experiences are meant to facilitate understanding of prescribed content or material. Understanding content or material could be considered as nonreflective for it does not involve a personal evaluation of what is learned (Peltier et al., 2006). In addition, this rather simplistic conceptualization adds to the prevailing confusion regarding the meaning of reflective learning by making it a catch-all term (Huntley, 2008).

Evaluating Perspectives and Alternatives

In this category, reflective learning entails comparing, analyzing, and evaluating alternative perspectives of an issue or practice based on evidence, theories or views from others (e.g., peers). For example, Lamb et al. (2017) described reflective learning as considering different voices and exploring problems from different perspectives. The perspectives from which an experience is considered could include one's personal experiences (e.g., Lemon & Garvis, 2014; Moore-Russo & Wilsey, 2014), educational theory or context of practice (Moore-Russo & Wilsey, 2014) or others' perspectives

(Moore-Russo & Wilsey, 2014; Welch & James, 2007). Moore-Russo & Wilsey (2014) suggested that reflection should "move past a simple reporting or description of events" and should rather entail acknowledging and comparing different sources of knowledge and experiences (p. 78).

Reflection therefore entails considering and weighing alternative perspectives and making rational choices. Such a conception differs from the former as it goes beyond a mere understanding of learning material. It relates to Dewey's (1933) notions of open-mindedness and freedom from habits so that one can entertain alternative ideas and not closes one's mind based on traditional values. While personal experiences and perspectives are important, reflective learning in this case requires us to be free from prejudices and to be open to alternative ideas and practices.

Reviewing and Evaluating Practice

A considerable number of studies (e.g., Alger, 2006; Harford & MacRuairc, 2008; Korkko et al., 2016; Maaranen & Stenberg, 2017; Welch & James, 2007) involved interventions related to the practicum component of teacher education. Accordingly, reflective learning is viewed as a process of reviewing and evaluating teaching practice with the aim of improving either current or future teaching. Alger (2006), for instance, referred to Hatton & Smith's (1995, p.34) widely cited definition of reflection as "deliberate thinking about action with a view to its improvement". Such conceptualization is related to Schön's (1987) reflection-on-action that involves reflection on practice after the experience or event. More specifically, reflection entails looking back at one's own or others' actions and describing what happened, identifying what went well and not, or evaluating its effectiveness in light of intended goals (e.g., Alger, 2006; Beavers et al., 2017; Rodman, 2010).

Although evaluation of teaching practices is an important aspect of learning to teach, the view of reflective learning would be too narrow if limited to such practice-based situations. When the focus is on retrospective reflection on practices, contemporaneous and anticipatory reflections can easily be overlooked. In the context of higher education, learning experiences do not necessarily involve direct engagement in practice situations. Besides, through review and evaluation of practice, students could learn what works or what does not. But it can also be argued that what works may not be

morally and educationally desirable, valuable, or defensible (Biesta, 2010; Norsworthy, 2002).

Metacognition and Self-reflection

Another conceptualization of reflective learning is directed towards oneself. In this category, two interrelated conceptualizations are included: self-reflection and metacognition. In self-reflection, the focus is on bringing one's inner self to the surface and then examining, questioning, and evaluating it. More specifically, reflective learning is understood as engaging students in articulating and examining their beliefs, assumptions, personal theories, and philosophies related to the content, which is, in most cases, about teaching and learning. Maaranen & Stenberg (2017), for instance, described reflection as a process of articulating one's personal practical theories. Nolan (2008) also emphasized the need to understand one's own beliefs and philosophy and how they shape their practice so as to engage fully in reflection.

Historically, reflection centered on the self has been considered as key characteristics that distinguish it from other forms of thought (e.g., Boud et al., 1985; Boyd & Fales, 1983). In a recent article, McGarr et al. (2019) noted that questioning of one's beliefs and assumptions that underpin practices has taken top priority amongst multiple forms of reflection. These kinds of reflection help us transform our frames of reference (Cranton & Roy, 2003; Gouthro & Holloway, 2018).

Reflective learning also takes the sense of metacognitive and self-regulative processes and functions. Rhodes (2019) defined metacognition as "a set of processes an individual uses in monitoring ongoing cognition so as to effectively control his or her own behavior" (p. 168). This monitoring and control of cognition includes experiences, knowledge, strategies, and goals (Efklides, 2017; Flavell, 1979). It also includes learners' awareness of their strengths and weaknesses and their progress toward meeting a learning goal (Denton, 2011). Accordingly, in some of the studies we reviewed, reflective learning is conceived as a process of thinking about thinking (Krause & Stark, 2010; Roberts, 2018; Shavit & Moshe, 2019), monitoring and regulating one's learning (Absalom & Leger, 2011; Hosein & Rao, 2017), or analyzing strengths and weaknesses (Chetcuti, 2007; Nicol et al., 2019). Krause & Stark (2010), for instance, defined reflection as "a mindful, metacognitively controlled cognitive activity that facilitates deep processing and understanding" (p.255). For Mortari (2012), reflection

refers to "keeping the gaze firmly turned on the life of consciousness in order to understand what occurs in it" (p. 527). In what he termed a phenomenological approach, Mortari (2012) described reflection as "a way for cognition to analyze itself" (p. 528) and its task is "seizing the essence of the stream of consciousness" (p.527).

Though both self-reflection and metacognitive orientations are similar in their focus on the self, the former focuses on prior and often ingrained beliefs and assumptions that students bring into the learning process, whereas the latter focuses on what happens in the learning process. As Archer (2010) argued, both self-interrogation and self-monitoring are crucial aspects of reflection since everyone benefits from being his/her own guide. However, conceptualizations of reflective learning should also go beyond self-reflection to include larger sociopolitical and systemic issues that affect our daily professional and personal lives.

Examining Wider Sociocultural and Political Contexts of Education

At a more critical level, reflective learning is understood as examining, questioning and challenging sociocultural, political, and historical contexts of education. Engaged either in theoretical/conceptual understanding or practical teaching experiences, reflective learning entails analyzing and questioning issues of teaching and learning in terms of the larger institutional and societal contexts. These analyses of larger societal issues in education take different forms ranging from evaluation of the sociocultural context of the classroom or school to ideological, historical, and political influences of the broader society. In the classroom and institutional context, reflective learning might involve evaluation of the social and cultural impact of one's teaching within the classroom and culture of school (Frazier & Eick, 2015). It may also take a form of deliberation on the moral and ethical dimensions of education (Dinkelman, 2000). In the wider context, the focus turns to dominant ideologies, political issues, taken-for granted beliefs and assumptions in the society. Reflective learning thus involves questioning and challenging those beliefs and assumptions and extends to the disruption, reconstruction, and transformation of both school and societal structures (Berghoff et al., 2011; Bognar and Krumes, 2017).

2.3.2. Instructional Strategies

Educators employ different instructional strategies to promote reflective learning among their students. Our analysis looked into the ways in which reflective learning was actually fostered in education courses. Descriptions of practices of reflection focused on two interrelated aspects of teaching and learning: the object of reflection (i.e., what was reflected upon) and what the reflective process involved. Accordingly, the strategies we identified are organized under these two aspects of instruction.

What was reflected upon?

The objects of reflection can be summarized in four main categories: teaching practices and experiences, course concepts and theories, learning process, and personal and social factors in education.

Teaching practices and experiences were the most common objects of the reflective process. Teaching practices and experiences which students were required to reflect upon took different forms such as actual school observation and teaching experiences (Frazier & Eick, 2015; Lamb et al., 2017; Welch & James, 2007), videotaped examples of teaching (Abell et al., 1998; Lemon & Garvis, 2014; Moore-Russo & Wilsey, 2014;), vignettes of classroom practice (McGarr et al., 2019), and plans for teaching (Bognar & Krumes, 2017; Carrington & Selva, 2010). Such reflections involved recording one's thoughts and feelings (McGarr & McCormack, 2014; Shavit & Moshe, 2019), examining their impact on learning (Frazier & Eick, 2015), identifying insights from practice (McGarr & McCormack, 2014), and solving dilemmas of practice (Alger, 2006; Griffin, 2003).

Since most of the studies were conducted in the context of preservice teacher education, it is not surprising that opportunities for reflection focused on teaching methods and practices. However, when reflective learning experiences target school curriculum and teaching, reflection on larger social issues might be hindered (Connell, 2014). Reflection that focuses on the nuts and bolts of practice only helps to make those practices work smoothly but fails to encourage the kind of critical reflection that "calls into question the power relationships that allow, or promote, one particular set of practices over others" (Brookfield, 2009, p. 293).

When reflective learning focuses on course concepts and theories, students were engaged in reading, summarizing, analyzing and/or dialoguing about assigned or self-chosen reading materials (Kaasila & Lauriala, 2012; Krause & Stark, 2010; Rocco, 2010; Tan, 2006). In Kaasila & Lauriala's (2012) study, for instance, students were provided with 23 articles as required reading and were tasked to write an assessment of two self-chosen articles. In Krause & Stark's (2010) study on a statistics course for education students, the main object of reflection was problems on the topic of correlation. Hence, whatever the nature of the activity might be, students were required to focus on topics or concepts that were dealt with in the course. Providing students with opportunities for reflection on concepts and theories early in the curriculum helps to establish a good foundation for reflection on practice and for lifelong learning (Coulson & Harvey, 2013; Thompson & Pascal, 2012).

Students were also tasked with reflecting on learning processes. As the object of reflection, the learning process includes scaffolding strategies (e.g., Roberts, 2016), insights gained (e.g., Martin, 2005; Shavit & Moshe, 2019), areas of improvement (e.g., Absalom & Leger, 2011), challenges faced (e.g., McGarr & McCormack, 2014), and achievements and successes (e.g., Absalom & Leger, 2011; Martin, 2005). For instance, Fund (2010) engaged students in writing a meta-reflection on their weekly meetings and changes in their reflections and learning. These targets of reflection are related to the view of reflective learning as a metacognitive and self-regulated learning strategy. Such opportunities are intended to help students identify effective learning strategies that could lead to success in their academic endeavors.

Personal and sociocultural factors in education were also among the objects of the reflective learning process. Personal issues that reflection focused on include students' prior beliefs and assumptions, personal theories, and life experiences (e.g., Braun Jr & Crumpler, 2004; Nolan, 2008; Maaranen & Stenberg, 2017). In Braun Jr & Crumpler's (2004) study, students were asked to look back at their lives and identify significant moments that relate to social science disciplines. These kinds of experiences help to make meaningful connections between professional and personal life experiences. In a few other cases, reflection targeted wider sociocultural, political and/or global contexts of school and education (Korkko et al, 2016; McGarr & McCormack, 2014). For example, Korkko et al.'s (2016) study was designed to engage students in reflection associated with four levels of practicum over five years of preservice teacher

education. In the fourth, advanced practicum, portfolio guidelines purposefully prompted students to focus on wider issues such as "school and education in ethical, social, cultural and global contexts" (p. 201).

What did the reflection process involve?

Similar to the objects of reflection, the teaching and learning process involved four categories of activities: modelling and explicit instruction, journal writing, autobiographic writing, and topical reflective writing and discussion.

Modelling and Explicit Instruction

Engaging in reflection is not an easy task, particularly for undergraduate students. Thus, modeling seems quite important. As Brockbank and McGill (2007) succinctly put it, "we cannot simply recommend reflective learning and transformational learning to student learners without aiming to be such learners ourselves" (p. 143). Educators' modeling of reflection could involve using reflective stories and questions, discussing and sharing their own thinking, and/or providing written/textual exemplars (Coulson & Harvey, 2013).

Our review of the literature showed that some educators explicitly taught the what and how of reflection so that students can understand and engage in the reflective learning process (e.g., Clarke, 2011; Alger, 2006). In other cases, instruction involves modelling the process itself (e.g., Risko et al., 2009; Welch & James, 2007). In Welch & James's study (2007), for example, students who were assigned a practicum in a special needs classroom were explicitly taught and modelled to reflect using what is referred to as an ABC123 model. The ABC element of the model required students to include reflections on affect, behavior, and cognition, respectively. When rubrics such as this are used as modeling strategies, the purpose should be scaffolding reflection without being prescriptive. Both highly structured, mechanical modelling and a lack of guidance can lead to descriptive and uncritical reflection (Boud & Walker, 1998; Finlay, 2008).

Journal Writing about Practice Experiences

Writing is considered one of the most powerful strategies for promoting reflective learning regardless of the context in which the reflective text is embedded (Alsina et al., 2017). Our review of the literature indicated a large presence of a variety of reflective

journal writing assignments related to field experiences. Journal writing could involve simple description and/or one's thoughts about the observed or enacted practice, or analyses of the impact of the experience on school students' learning and/or one's professional development (Shavit & Moshe, 2019; Zhan & Wan, 2016). These journal reflections could also consist of evaluation of the elements of the lesson observed or taught against established criteria or intended goals (Lemon & Garvis, 2014; Kaasila & Lauriala, 2012). In some cases, written reflections were required to demonstrate links between learned theories and observed or enacted practices (McGarr & McCormack, 2014).

Journal writing is widely recognized as a critical lever for reflective learning (Griffin, 2003) as long as it is framed in a way that balances provision of guidance and structure with spaces for open and personal reflection. It is also important to pay attention to and scaffold potential problems such as engagement in superficial reflection, writing for the teacher or assessment, and lack of clear structure and purpose (Dyment & O'Connell, 2010). It is often easier to write descriptive accounts of experiences than reflective critiques.

Autobiographic Writing

Educators also engaged students in writing about their past life and school experiences (Tugui, 2013; Braun Jr & Crumpler, 2004; Kaasila & Lauriala, 2012). Tugui (2013) prompted students to reflect on their past school experiences with the aim of making them conscious of their beliefs about teaching. Not only school life, but also social life experiences, were prompted through autobiographic writing tasks (Braun Jr & Crumpler, 2004). In a teaching methods course, Braun Jr and Crumpler (2004) provided a memoir writing task in which students were required to reflect on three important experiences in their lives that could be related to social science disciplines such as geography, economics, political science, and anthropology. Autobiographic writing can make students aware of their preconceived ideas and assumptions about educational processes they have developed from years of classroom experience as students (Brookfield, 1995). In addition to reflections on past educational and life experiences, it is also important to consider activities that prompt students to reflect on their present and future life.

Topical Reflective Writing and Discussion

Another way of engaging students in reflective learning was through writing about and discussion on course content. Students were tasked to read literature, attend lectures and/or work on content-based questions or problems. Then they were required to write summaries, arguments or evaluations and/or engage in face-to-face or online discussions. Though students were reminded to write an assessment rather than a mere summary of articles, provision of sufficient scaffolding and support was needed to encourage deeper, critical reflections. Reflective writing should be seen as distinct from generic academic or essay writing. It needs to be guided by reflective purposes and go beyond a mere description or conveyance of information about a topic (Moon, 2004; Ryan, 2011).

Besides writing activities that engage students in monologic reflection, several scholars suggest that reflective learning activities should also promote student interaction. Effective reflective learning requires critical self-awareness of thinking, values, and assumptions, as well as openness to alternative perspectives (Coulson & Harvey, 2013). Considering the possibility of self-deception when reflections are limited to solitary writing activities (Brockbank & McGill, 2007), it is relevant to engage students in reflective dialogue through activities such as dialogical exercises with peers or mentors, classroom discussions, online discussions, and seminars. For example, Lee (2010) designed journal writing tasks as online interactive activities. Students were required to form a reflection dyad by selecting a journal partner. The students were then asked to write a weekly reflective journal, post it on the discussion board on WebCT, read and comment on their partner's entry. The experience helped them to ask deep questions of each other and gain additional perspectives and insights (Lee, 2010).

2.4. Discussion

The purpose of this study was to examine the range of conceptualizations of reflective learning and the ways by which educators foster it in education courses. The results of our review showed that despite the variations and complexity, conceptualizations of reflective learning often emphasize content learning and professional competencies. For example, the notion of reflective learning as content understanding could help students achieve curricular competencies envisaged in the

courses. Similarly, the metacognitive view focuses on learning strategies for attaining learning goals related to the subject matter. Conceptualizing reflective learning as review of practice also suggests evaluation of practice as an important element of professional competencies (Oner & Adadan, 2012). This aims at ensuring the development of a professional knowledge base and consistency of related actions (Thompson & Pascal, 2012). Such emphasis on professional competence is evident particularly in teacher education as learning experiences ranging from lesson plans to sociopolitical analysis are often described in relation to implications for teaching practice (Larrivee, 2008). This could be due to the interest in teacher education more on the practical and methodological elements of teaching (Lam, 2015).

Both perspectives of reflective learning that focus on improving learning outcomes and developing professional competencies are relevant and compatible goals of higher education (Clarà et al., 2019). However, it is important to extend the notion of reflective learning beyond professional practice to include everyday life contexts. When both learning and living contexts are embraced, students get opportunities to question social, political, and cultural issues that operate not only in their learning and professional practices but also in their everyday life. Living in a technologically rich, highly unpredictable and complex world means learning in higher education should go beyond acquisition of disciplinary knowledge and skills (Barnett, 2012). The notion of reflection needs to embrace learning to ask meaningful, substantive, and broader questions about the world around us that helps students to understand issues impacting their learning, their practice, and most importantly, their lives.

Despite the emotionally charged and sensational political environment they live in, Nussbaum (1997) expressed her concern about the "sluggishness of thought" among citizens where they tend to go "through life without thinking about alternatives and reasons" (p. 22). Her proposed solution is to develop college students' ability to self-examine, see themselves as integral parts of the world, and engage in narrative imagination. Similarly, in their call for broadening the 'benchmark' of scholarship in teaching and learning, Philip et al. (2018) encouraged educators to address issues of "for what, for whom, and with whom" in educational research and practice. It is of great necessity that reflective learning develops habits of thinking and reading which go beneath dominant perspectives, popular views, and surface meaning to understand the latent meaning, social contexts, and personal consequences.

With regards to instructional strategies, the objects of reflection, such as teaching practices, course concepts, learning processes, and personal and social factors in education are worth reflecting on. However, it is counterproductive to limit the scope only to educational theories and practices without focusing on the role of education in addressing contemporary problems and societal ills. In other words, reflective learning experiences need to be designed for purposes beyond improving learning outcomes related to subject matter knowledge and enculturing prospective professionals to the world of work. It should also extend to contemporary issues in students' daily life and the community at large. Brockbank and McGill (2007) emphasized the need to engage "the person at the edge of their knowledge, their sense of self and the world as experienced by them" (p.65). That is, they suggested the kind of reflective learning that challenges not only learners' assumptions about knowledge but also themselves and their world.

Instructional approaches including modelling, journal and autobiographical writing and discussion would be relevant if used in light of the purposes of reflective learning. The ways in which these strategies are used is more important to consider than the methods per se (Boud & Walker, 1998; Finlay, 2008). In our view, the use of modelling and structures for writing in mechanistic ways so that students follow specific steps of reflection and fulfill course requirements would be less helpful to explore experiences to the deepest level. Instead, more focus should be on the use of strategies like examples, prompts, tough questions, advance organizers, and feedback to initiate, challenge and sustain critical reflection.

In some cases, writing activities (journal, autobiographic, topical writing) involved individual reflections. Though reflection can be developed through individual processes (Boyd & Fales, 1983; Mezirow, 1998), socially constructed reflections could result in better outcomes (Brockbank & McGill, 2007; Noffke & Brennan, 2005). Noffke and Brennan (2005) relate the concept of reflection to the concept of language in that it is not a purely individual process, but rather a social process. They also noted that solitary reflection tends to exclude critical and action-oriented dimensions. On the other hand, collaborative reflection helps not only to affirm the value of one's own experience but also to examine alternative meanings and engage in the process of inquiry (Rodgers, 2002). On this note, it is important to stress the distinctions between reflective dialogue and conventional discussion. Dialogue that is reflective is intentional, interactive, and experiential (Brockbank & McGill, 2007). More specifically, it should be grounded in

learners' experience and should have an explicit intention of providing context and support for reflective learning.

Even with well-intentioned instructional strategies and prompts, critical reflection on larger structural and hegemonic issues may not come easily for most students. For example, the way powerful elites, giant and transnational corporations or government systems can affect the life and work of every individual is subtle. In such cases, instructors need to incorporate examples of case studies and counter-hegemonic narratives or perspectives in their lessons to spark critical reflection among their students.

Chapter 3.

Instructors' Conceptions of Reflective Learning: A Phenomenographic Study

Abstract

Reflective learning has been considered important in higher education because of its value for personal and professional growth. Despite its recognized benefits, there are diverse interpretations of the meanings and processes of reflective learning. Theoretical frameworks and models that purport to explain what it entails abound; however, there is a dearth of research that explores the conceptions of instructors regarding reflective learning. This study examined university instructors' conceptions of reflective learning in the context of education courses. Semi-structured interviews were employed to collect data from 32 instructors who consented to participate. The interviews were transcribed, segmented, coded, and compared. Our phenomenographic analysis resulted in four qualitatively different conceptions of reflective learning: critical engagement with content, improving professional practice, identity development, and developing critical consciousness. The study has implications for faculty development and research on reflective learning.

Key Words: reflection, reflective learning, conceptions, phenomenography

3.1. Introduction

Conceptions are the lenses through which people view and interpret the world (Pratt, 1992). Research on teaching has established the impacts of teachers' conceptions of teaching, learning, and knowing on their instructional decisions and processes (Kember & Kwan, 2000; Lam & Kember, 2006; Pajares, 1992; Pratt, 1992). A teacher's conceptions of teaching influence his/her decisions on what teaching methods to employ, what learning tasks to design, and what assessment strategies to use

(Kember, 1997). Lam and Kember (2006), for instance, reported a relationship between essentialist conceptions of teaching and content-centered teaching, and also between contextualist conceptions and student-centered approaches to teaching. Similarly, a conception of teaching as transmission of knowledge was found to be related to enacting content-based teaching and employing frequent tests and quizzes (Kember & Kwan, 2000). Such findings imply that efforts related to instructional reform would benefit from considering instructors' ways of understanding teaching and learning, because strategy-based approaches in professional development will not necessarily result in changes of instruction unless associated conceptions and intentions are addressed (Trigwell & Prosser, 1996).

Over the last three decades, research on conceptions has largely focused on teaching and learning in general (e.g., Bruce & Gerber, 1995; Kember, 1997; Kember & Kwan, 2000; Pratt, 1992; Tigchelaar et al., 2014; Säljö, 1979; Saban et al., 2007) or conceptions of teaching and learning in disciplinary areas (e.g., Prosser et al., 1994) with little attention to more specific constructs like reflective learning. Although developing learners' reflective competencies has become a key objective for instructors in higher education (Colomer et al., 2020), studies on their conceptions of reflective learning are scarce. Efforts to develop frameworks that facilitate our understanding of reflective learning are either merely theoretical or are primarily based on analysis of artifacts of student learning.

The complex relationship between instructor conceptions and pedagogical approaches means it is imperative that efforts to foster reflective learning in higher education begin with an understanding of instructors' conceptions. This is because the nature of learning activities selected and enacted to foster reflective learning could be related to the way instructors understand the concept (Clarà, 2015). Such an understanding of instructors' conceptions is particularly important in reflective learning for it has been subjected to a wide range of interpretations in the literature. Despite considerable efforts to clarify the concept, there are still ambiguities regarding what reflective learning entails, as well as variety in the models that can be used to operationalize its elements. This study therefore aims to explore instructors' conceptions of reflective learning in the context of a Faculty of Education in a Canadian university.

3.1.1. Reflective Learning in Post-Secondary Education

Reflective learning has been considered an important type of learning experience in higher education because of its value for personal and professional development. Among the often mentioned benefits for learners are enriching and furthering new knowledge and action (Brockbank & McGill, 2002; Roessger, 2020); gaining self-awareness (Miller, 2020; Tan, 2021); supporting self-regulated and autonomous learning (Huang, 2021); promoting and cultivating transformative and lifelong learning (Brockbank & McGill, 2002; Huang, 2021; Tan, 2021); managing the demands of multiple expectations (Ryan & Barton, 2020); and resolving uncertainties and complexities (Chan & Lee, 2021). More than ever, reflective learning becomes crucial in this indeterminate world that we inhabit. In the context of the current pandemic, for instance, Walpola & Lucas (2021) discussed how reflection benefits health practices. In describing the importance of reflection for medical professionals, the researchers stated, "during the COVID-19 pandemic, reflective learning practices have provided an effective and timely mechanism for practice change, which previously have had a poorer uptake by medical professionals" (Walpola & Lucas, 2021, p. 144). They further contend that reflective learning processes enabled a better management of the pandemic by allowing professionals to use practical and timely approaches rather than rational and theory-based procedures. Reflection can "promote resiliency and resourcefulness in the face of life's dynamic challenges" (Rogers, 2001, p.55). It is therefore critical that reflective learning is fostered in higher education because it benefits students' personal development as well as their professional engagement with the likely use of their skills for the benefit of society at large (Gibbons, 2019).

Despite the potential benefits, there are diverse interpretations of the meanings and processes of reflective learning. Its meaning is "unanimously recognized in the field [of teacher education] to be ambiguous" (Clarà, 2015, p.261) and varies based on time and context (Chan & Lee, 2021). Since Dewey's initial work on reflection, scholars have been grappling with determining what reflection entails. Dewey (1933) understood reflective thought as: "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 conclusion to which it tends" (p.9). His interpretation of reflection emphasized a way of thinking and a conscious effort of examining and inquiring into one's beliefs and ideas based on evidence and rationality. Half a century after Dewey's definition, Schön's

(1983; 1987) work on reflection rekindled interest and discussions among scholars engaged in professional preparation programs. The notion of reflection-in-action as an antithesis to technical rationality was central to Schön's work. That is, technical rationality, which involves "an application of knowledge to instrumental decisions" is considered incomplete to address complex, uncertain, and unique problems that professionals encounter in the real world (Schön, 1983, p.50). Schön thus proposed that reflection-in-action is "central to the art through which practitioners sometimes cope with the troublesome 'divergent' situations of practice" (p.62).

Following Schön's seminal work, the concept and practice of reflection have continued to evolve in relation to different contexts. Rose (2013) considered the busyness of everyday life in the digital world in her definition of reflection. She understood reflection as "a form of deep thought that takes place in conditions of solitude and slowness" (p. x). She noted that reflection unfolds when people take time from the chaotic and hyper-stimulating world that precludes reflective engagement. In order to address the limitations of Schön's reflection-in-action and reflection-on-action, Rose introduced the notion of "reflection-then-action" representing a process "in which reflection comes first and informs subsequent action" which she argued better characterizes the relationship between reflection and action (Rose, 2013, p.29). Barton and Ryan (2020) also discussed reflective learning pertaining to international students learning in higher education. They provided a two-part definition that they contend is broad and generative for this group of students. They defined reflective learning as "1) making sense of experience in relation to self, others and contextual conditions; and importantly, 2) reimagining and/or planning future experience for personal, professional and social benefit" (p. 2). Their definition emphasizes the importance of transforming international students' learning and employability potentials through reflection on their beliefs and practices pertaining to cultural and professional contexts (Barton & Ryan, 2020).

3.1.2. Instructors' Conceptions

In educational research, several related terms such as beliefs, perceptions, and theories are used to denote teachers' way of understanding and representing professional practice. The use of such terms largely depends on researchers' choice of words and their meaning (Pajares, 1992). In this study, we use the term conception as it

represents a broader construct encompassing beliefs, knowledge and meanings (Barnes et al., 2017). Pratt (1992) defined conceptions as "specific meanings attached to phenomena which then mediate our response to situations involving those phenomena" (p. 204). Conceptions are seen as different ways of understanding a particular phenomenon (Marton & Pong, 2005) or established generalized meanings that serve as standards of reference (Dewey, 1933). On the grounds of these descriptions, we understand conceptions as meanings individuals assign to phenomena, experiences or issues. These meanings are personal (Pratt, 1992) and relational (Svensson, 1997) and are created from the person's interaction with the external world.

Conceptions are important in "facilitating the grasp of concrete cases of human functioning" (Marton, 1981, p.177). Hence, it is critical that we examine instructors' conceptions of reflective learning to gain insights about their understandings and related instructional strategies. Several factors, such as disciplinary orientations and scholars' theoretical perspectives, are considered responsible for the diversity of conceptualizations and models of reflective learning. For instance, Lyons (2010) interpreted the meanings of reflection based on the works of three prominent scholars on the topic. She asserted that reflection should be understood as a mode of thinking, knowing and critical consciousness based on works by Dewey, Schön and Freire respectively. Speaking of disciplinary differences, reflection has been mainly understood in relation to practices and actions in professions such as teaching, nursing, and social work (Fisher, 2003). The theoretical perspectives through which interpretations are made are also sources of diversity. Conceptualizations from a critical theory stance, for example, tend to focus on power and hegemony (Brookfield, 1995; 2009). Our review of empirical studies on reflective learning also revealed conceptions ranging from conceptual understanding to examination of broader socio-cultural contexts (Ch. 2).

In general, theoretical frameworks and models that purport to explain what reflective learning and practice entails abound. However, there is a dearth of research that empirically explores instructors' conceptions of reflective learning in the higher education context. Similarly, although researchers have tried to map out different categories and levels of reflection, mainly based on students' artifacts of assignments and reflective tasks, studies that examine the conceptions of educators who design those tasks and assignments are scarce. This study therefore builds on previous work in

the field to explore the different ways in which instructors of education understand reflective learning. Specifically, the study answers the following main question:

- What are university instructors' conceptions of reflective learning in the context of education courses?

3.2. Methods

The purpose of this study was to examine instructors' conceptions of reflective learning using data from interviews with instructors at a Canadian university. We employed a phenomenographic approach to answer our research question. Phenomenography is a research approach that aims "to investigate the qualitatively different ways in which people understand a particular phenomenon or an aspect of the world around them" (Marton & Pong, 2005, p.335). In other words, participants' conception of the phenomena of interest is at the heart of phenomenographic research (Entwistle, 1997; Richardson, 1999; Tight, 2016). In this study, the phenomenon of interest is instructors' conceptions of reflective learning.

Data were collected from instructors in the Faculty of Education during three academic terms in 2020. First, instructors who were assigned to teach education courses at graduate and undergraduate levels during the data collection period were identified. Then, we selected courses that included some form of reflective learning experiences through a preliminary assessment of course descriptions posted online. Such inclusion of reflective learning experiences in courses took different forms and levels, such as a learning outcome/objective, assessment strategy, a program/course value or principle, etc. This helped to ensure that participants who had experiences of the phenomena of interest were included, which is considered important in phenomenographic studies (González, 2011). Instructors for courses identified in this way were invited to participate in the study. A total of 32 instructors consented to participate.

Among the instructors who participated in the study, 31.3% were teaching undergraduate courses, 34.4% preservice teacher education (hereafter PTE) courses and 34.4% graduate courses. PTE is the Faculty's signature initial teacher education program, where students are admitted after completing a bachelor's degree and trained to be teachers in elementary or secondary education. In terms of academic position, 13

participants were tenured/tenure-track faculty, 2 were adjunct professors, 9 were sessional instructors and 8 were faculty associates. Faculty associates are seconded K-12 teachers who are recruited by the Faculty to teach exclusively in the teacher education program. Sessional instructors are hired to teach courses on a term-by-term basis.

As detailed above, participants represented a wide variation in terms of academic positions, program areas and teaching experience. They were also affiliated with different programs in the Faculty, such as Curriculum Studies, Educational & Counseling Psychology, Arts Education, Mathematics Education, Language Education, Science Education, Educational Technology, and Educational Leadership. In terms of teaching experience in higher education, participants ranged from one to over forty years of experience. Many of the professors (tenured/tenure-track and adjunct) had more than 15 years of teaching experience in higher education. Faculty associates and sessional instructors also had several years of teaching experience either at K-12 levels or in higher education as graduate students.

Although researchers may use different data collection methods to understand participants' conceptions of phenomena, interviewing is considered the primary method in phenomenographic research (Åkerlind, 2005; Marton, 1986). This is because interviewing is "the most appropriate means of obtaining a detailed and rich encounter with the lifeworld" of the participant (Ashworth & Lucas, 2000, p. 302). Interviews allow for probing, which is essential to explore the different aspects of participants' understanding and experience of the phenomena of interest. Accordingly, we employed a semi-structured approach to interviewing that involved improvising questions and prompts when appropriate and reordering and sometimes skipping questions based on the responses of the interviewees.

The general purpose of the interviews was to explore instructors' understanding of reflective learning, related instructional strategies they use to foster reflective learning and their perceptions of barriers to students' engagement in reflective learning processes. However, the data used for this study focus specifically on instructors' conceptions of reflective learning. Examples of interview questions that helped to elicit participants' understanding of the concept include: How do you define reflective learning? What are the purposes of learning activities you designed in the course? Why

is reflective learning important? What kinds of responses make you think that students have engaged in reflective learning? However, it should be noted that descriptions of conceptions can be identified from responses to questions concerning instructional strategies or barriers to reflective learning and were included in the analyses of conceptions when appropriate.

Interviews were conducted both in-person and virtually. Since most of the data were collected during the Coronavirus pandemic, phone and zoom interviews were used depending on the participants' preferences. Interviews were audio-recorded and transcribed verbatim. The length of interviews ranged from 27 to 56 minutes each.

Data analysis in phenomenography is an iterative process of reading and rereading through transcripts, identifying and segmenting data relevant to the research question, examining underlying meanings, and comparing and contrasting responses across interview transcripts (Åkerlind, 2005; Forster, 2016; Tight, 2016). Accordingly, from the general corpus of interview transcripts, we segmented responses focusing on instructors' understanding of reflective learning (our phenomenon of interest) and assigned descriptive codes to the segments (Miles & Huberman, 1994). Then, we read the transcripts multiple times to explore similarities and differences between participants' conceptions. Categories of descriptions, which are the main outcomes of phenomenographic analysis (Åkerlind, 2005; Entwistle, 1997; Svensson, 1997), were developed through constant comparison of descriptive codes, along with their respective transcripts across the data set. Although the individual contexts from which the transcripts are drawn are important in understanding participants' meanings, analysis mainly focused on the collective experience to identify the range of conceptions across the whole sample (Åkerlind, 2005; Tight, 2016).

3.3. Results

Analysis of interview transcripts indicates that most of the participants held multiple understandings of reflective learning. Their responses related to issues such as why reflective learning is important, what learning activities it involves and what students reflect upon. Based on closer examination of recurring descriptions within and across the interview transcripts, we constructed four categories of reflective learning: critical engagement with content, improving professional practice, identity development, and

critical consciousness. Excerpts from transcripts are used to illustrate each category below. In reporting participants' responses, alphanumeric codes are used to conceal their identities. Codes of UT, GT and PD are assigned to instructors who were teaching undergraduate, graduate, and preservice teacher education courses respectively. The different instructors' understandings of reflective learning are summarized in Table 3.1. This table provides a brief description of the four categories as well as excerpts as examples for each category.

3.3.1. Critical Engagement with Content

In this category, reflective learning is seen as developing an in-depth understanding of course content. This is evident from participants' descriptions of the purposes, learning activities and objects of reflection that they provided while answering the interview questions. Whichever aspect their responses focus on, they tend to distinguish reflective learning from non-reflective learning by its focus on developing an in-depth understanding of concepts, theories, or ideas students are presented with in the courses. For example, UT12 clarifies the purpose of reflective learning in relation to critical thinking:

> I want them to be critical thinkers. That is important. I want them to not just consume the material and eat it up and be like, oh, great this tastes good. ... I want them to be able to exit this class and think critically about the material . . . I think that higher education is not just about absorption and like spitting out an answer at the end of the day, it is about critically engaging with the ideas you are presented with. (UT12)

This participant's response makes a distinction between reflective and non-reflective learning in that the former aims to bring about critical conceptual understanding and the latter just focuses on rote memorization. Another participant (GT04) also explained the main goal of her course as conceptual development, and she viewed reflective learning as key to the realization of such goal. She stated:

> All I do in my classes I said that my goal is conceptual development of my students. So, in my world, if I will help students to develop conceptually, with that alone, it is impossible without them honing this reflectively and metacognitively. . . My care is conceptual development, it is not personalized yet . . . I would recommend not to personalize education because it is not about persons but conceptual development. (GT04)

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In her personal theory of concept development, this participant contends that concepts are systemic and cannot be developed unless one possesses a reflective capacity. The participant focused on describing personalized (or not) education to express her dissent from views of reflective learning as concerning personal reactions and feelings. When asked about the kind of student responses or activities that make her think students are engaged in reflective learning, her reply also focused on the depth of thought and understanding students develop about the course materials they were presented with.

> Well, it is very clear that the students' responses will show clearly stating their argument about the complicated concept, not the ones who just sort of done overnight, but the ones who took a lot of time to prepare to elaborate on the research literature for supporting the argument. And then once they get to that level of sort of attaining these concepts, they also become sort of attached to it because it is a lot of intellectual labor. (GT04)

Table 3.1.   Categories of conceptions of reflective learning

Category	Description	Example
Critical engagement with content	An in-depth and critical intellectual engagement with ideas and concepts presented in the course. It entails going beyond surface learning that focuses on regurgitation of information and rather focus on conceptual understanding and analysis	"the quality or the kinds of questions that provoke discussion, they are a sign rather than staying on the surface, why did the author say about this or give a quote for, so rather than those kinds of, you know, surface level questions, if they are engaging with a really in-depth question about one of the contradictions between this and that more like" (GT02) "So, I think reflection for me is there is a part that is interpretation that is contact with ideas or with a text you read or a webinar that you listen to. So, there is a part that is being into contact with and then processing it, deciding how you understand it" (PD28)
Improving professional Practice	A tool for improving professional practice. It involves anticipating potential issues of professional contexts and/or looking back to practice and then taking actions to improve or change the practice.	"It [reflective learning] enables people to really take a look at their own practice, their own work in the midst of the work. And it helps them to gain insights into what they are doing, and the kinds of adjustments and changes that need to take place" (PD33)

Category	Description	Example
Identity Development	An examination of one's beliefs, biases, assumptions and experiences with the aim of becoming aware of oneself and developing one's identity	"I think … to bring it back on you like where are your biases, what are you feeling, how does this get in the way of your work, you know . . . questioning themselves, turning the mirror back on them, which is the goal really … you got to change yourself and your views and not just change but understand them. It does take a certain amount of like it is that reflexivity, right, to be able to develop your identity" (GT19). "I would say, we need to have a good understanding that the development of the whole person is vitally important in our students. ... So, I think that is the first thing that we need to have that awareness that we are developing human beings here. And that development necessarily involves reflection" (GT21)
Critical Consciousness	Examining and challenging taken-for-granted assumptions and practices and becoming aware of how broader systems and structures affect one's personal and professional lives.	"I see it as a method for critique, but you know, like in a sort of classic theoretical sense of like, you know, challenging assumptions and challenging ideology and unpacking their social location" (UT01) "the school is not a neutral space. There is power in the school. So the gaze is something that gives value to objects and practices, and people, and the role of teachers is to develop critical consciousness. So, making students aware of the social environment" (UT08)

In critical engagement with content, there is also a greater focus on the nature of learning activities in participants' descriptions of reflective learning. Most participants reported critical reading and thinking as well as reviewing experience as important facets of activities that they regard as reflective learning. When they described learning activities that represent reflective learning, participants often made reference to the level of students' task-related cognitive engagement. Such descriptions reinforce the features of this category because the focus is on criticality and depth in thinking pertaining to the course content. PD26's comparison of reflective and non-reflective learning activities clearly illustrates this idea.

> I feel like when they are not just regurgitating what they heard or saw, but when they are commenting on what they heard, or saw, or bringing it back to how it connects to them … I think, you know, when they are not [reflecting], it is just kind of seems very surface, it seems like yeah, there is nothing new here. There is nothing to show that they have sort of chewed it up a bit and have really tried to wrestle with whatever they have come up with. (PD26)

GT07's description of his students' reflective capacity and development is also indicative of the level of thought as a distinguishing feature of reflective learning. He stated that students' reflective capacity has developed over the duration of the course as they were responding to each other in more engaging ways and asking more meaningful questions rather than simply complimenting each other. The following excerpt is from a participant who was describing the changes she made to the learning activities to foster reflective learning.

> I want to give them a slightly different experience. So, I cut back a little bit on the regular writing. So sometimes I like to have critical reading responses as ongoing thing so that I get a sense [of students' thinking], but also the students are able to integrate their learning and their reading throughout the semester. (GT02)

The point that the above excerpt demonstrates is that reflective learning activities are seen as involving synthesis of ideas from reading materials, which is distinct from "regular" writing involving descriptive summary of readings. Whether students are tasked with reading, writing, questioning, or responding activities, depth and criticality are central to the meaning of reflection for these instructors. In other words, this conception incorporates learning activities that involve a way of thinking that goes beyond the surface level and simple observation.

The other focus in this category is on engaging students in reviewing and relating experience to promote depth and criticality in content learning. UT12, for instance, emphasizes the importance of reviewing one's learning experience, with the aim of checking on their understanding of the content they have learned:

> I think it is very important that students have the opportunity to reflect back on how they have developed in the term, how they are under to kind of hold a mirror up to their understanding of the coursework, you know they are reading these articles every week or doing the modules, and the quiz feedback, that is one way that they get a reflection of how they were doing.

The emphasis on course readings, concepts and ideas as objects of reflection is also another manifestation of the view of reflective learning as critical engagement with content. Although subject matter content could be the starting point for all other categories of conceptions, it is seen as the main target of reflective learning by some participants. When asked about the meaning of reflective learning, PD27's responses emphasized two types of objects of reflection, of which subject matter content is one.

So, I think I guess what I am saying here is I think there is sort of two aspects. One is, I think it is important for them to reflect on the ideas that are being presented to them . . . And then, it is important for them to reflect on their own worldviews that have shaped them in various ways, their own worldview and experiences.

Speaking about the differences in the nature of reflective learning in different programs, GT02, a professor who was teaching a graduate course, pointed out that reflective learning in her course targets the contents of the material or course.

I have to sort of insist that no, this is not about writing your feelings. This is about the material, so there are multiple different kinds of reflection activities. And so, I think, depending on the purpose of a particular program of study. So, in PDP or in teacher education, we engage in more reflective practice in reflecting on one's practice. In, say a graduate or an undergraduate course, we, depending again on the area of study, so philosophy of education would be very different than sociology of education, where we encourage students to think about the material aspects (GT02).

Indeed, the participant is explaining how reflective learning can be understood differently based on the nature and goals of the programs. More specifically, she distinguished what students in teacher education programs and other education courses reflect upon. Whereas practice and feelings are targeted in teacher education courses, subject matter content is the primary focus of other education courses including her own.

In general, reflective learning in this category is seen as critically engaging with knowledge or subject matter content in the discipline, with the goal of enhancing students' conceptual understanding. The level of understanding that students are expected to develop might be described using different modifiers such as critical, in-depth, understanding, etc. However, their common facet is that they are distinguished from rote retention of content. This perspective is related to what is commonly known as deep versus surface approaches to learning. That is, reflective learning is seen as a deep approach that involves "critically interacting with the content, relating ideas to previous knowledge and experience, and focusing on the content's underlying meaning to achieve learning with understanding" (Huang, 2021, p.41). On the other hand, learning activities that are seen as non-reflective adopt a surface approach characterized by memorization and reproduction of content.

3.3.2. Improving Professional Practice

In this category, reflective learning is understood in terms of bringing about changes in one's practice or deliberating on how it should be improved. It is seen as a tool for solving problems of professional practice. In most cases, participants who espoused this conception made reference to teaching practice when explaining their perspectives on reflection. The following excerpts from two participants' responses to questions on why reflective learning is important clearly demonstrates this conception:

> If I do not take the time to reflect, then I could keep doing that same thing that is not working. Or I could accidentally keep doing the same thing and not realize why it is working. So, then I do not try to figure out what else I need to bring back in. … So obviously, and if we do not examine things, we could be in danger of replicating things that maybe are not so good. So, we need to take that time to look at what we are doing and think about the why I am doing what I am doing. (PD26)

> This idea that we are always needing to be responsive to the students who are in front of us and view each sort of teaching moment is a new moment. I think that there are things that are both, you know, the reflection on practice is one thing but the reflection for practice and looking into the future [is another thing]. I think it just keeps the profession alive, whether you are in higher education or in K to 12. And yeah, I don't know, I'd say it is hard for me to separate it from good teaching, period. (PD32)

Participants were focused on developing professional practice for which students are preparing. This view of reflective learning as improving practice or solving problems of professional practice was seen in two ways: 1) anticipating what will happen in future practice and planning accordingly, and 2) reviewing and reflecting on one's practical experience. These two perspectives are evident from GT06's notions of "preflection" (participant's terminology for anticipatory reflection) and reflection pertaining to his immersive model of course design. Describing the immersive model, this participant noted that his graduate students first engage in a K-12 lesson (i.e., they take the role of K-12 learners and the instructor as K-12 teacher) in a subject that they are preparing to teach, and then followed with discussions on theories and concepts. Thus, preflection entails examining the application of what they have experienced and discussed in the course to professional (school) contexts. The instructor explained the importance of preflection as:

One of the things that is important for me is not only reflection, but preflection. So preflection, for me, is where we discuss something in class, they have experienced something and then I may ask them to anticipate how this will work in their classroom. Where will the challenges be? Which students will respond well, which students won't? Those sorts of things of anticipating and resolving issues before they actually happen is and sort of cementing their commitment to things through preflection, to me is an important thing. (GT06)

Such anticipatory reflection is considered crucial for addressing new and original problems (Wilson, 2008). Reflective learning as a tool for solving professional problems also entails looking back to practice and improving it based on review. This perspective is illustrated by GT06, who provided his definition of reflection as:

I think I would define reflection the same way [as Donald Schön]. So, for me reflection is to think back on your actions, to think back on the results of those actions, and try to build a link between my actions and the results of the action. So, my action is my teaching. The reaction is the learning or the student behavior, and to think about those things. And Donald Schön asked us to think about those things with an explicit purpose of using that sort of feedback cycle as a way to change your actions. (GT06)

In this category, reflective learning is seen as a tool for improving not only the practice of individuals but also the community of professionals at large. PD31's response to the question on the importance of reflective learning reinforces the perspective of reflection as a process of reviewing practice to solve problems. He stated:

It is really important because … when a school is faced with a serious problem, it is just that community of educators, brainstorming solutions on the basis of however many ways they can view the problem, that is generally how we address these things. So having them understand even this early in the semester in the program, having them come to an understanding of the community of educators, that they are becoming a part of the professional community that they are joining. (PD31)

In the context of professional development, this category also embraces the notion of reflective learning as a lifelong learning strategy that professionals use to keep abreast of the demands of their profession. The excerpt from the following participant illustrates such conception:

So, what I've told my students in the past about the why reflection is important for teachers throughout their career is that they will leave their teacher certification program with some useful skills and knowledge. But they will be expected to continue to refine their practice over a period of 20 years or more. And, they will have to learn new

things because society is a moving target, it presents new challenges all the time . . . And essentially, teachers have very little . . . by way of resources to meet those challenges other than their own intellect and the intellect of their fellow teachers in a school. And so, reflection is important because they have to be continuously learning about all of these new challenges that they face, or new ways of addressing old challenges. (PD31)

In general, the conception of reflective learning as a tool for solving problems and improving professional practice is distinct from the previous category. It is conceivable that students who developed an in-depth understanding of course content may use their knowledge to improve practice. However, in the previous category, the primary purpose of reflective learning is not to translate theory into action but rather to grasp content and improve understanding of concepts. On the other hand, practice driven purposes and views target changes in action through reflection. The emphasis in this category is on reflective learning as examination of professional practice such as teaching and the reconsideration of how it is being done and/or how it can be improved.

3.3.3. Identity Development

In this category, reflective learning is crucial for students' identity development. Palmer (2017) described identity as "an evolving nexus where all the forces that constitute [one's] life converge in the mystery of self" (p.13). Participants' reference to identity may be specific to their professional identity related to the program they are attending, or to their personal identity more generally. For instance, UT30 described the purposes of reflective learning that combines both personal and professional identity development. She stated:

I say to them, what I want you to develop, and what I want you to understand is, who you are as a person … or who you believe you are as a person has everything to do with who you are going to be in that classroom. So, it is about thinking about what kind of person do I want to be in this world, to everyone, to my family, to people I do not know . . . Because education is fundamentally about identity formation. (UT30)

In the above excerpt, one can notice the phrases ('what I want you', 'who you are', 'what you believe you are', what kind of person I want to be') that communicate how UT30 values identity as an overarching theme that guides what students are going to do both in professional and personal life contexts. Hence, reflective learning experiences

are considered as promoting the development of one's identity. Although the concept of identity in general and professional identity in particular is complex and dynamic, an aspect of professional identity can be seen in terms of one's unique approaches and philosophies of professional practice (Walkington, 2005). An instructor of a graduate leadership course, for example, explained how reflective engagement can help students develop personal leadership approaches:

> When you are thinking about self-reflection, you know, it helps to develop an awareness of personal approaches. That is what this course does to leadership in and relates it to education and profession, professional expertise. It allows you to share, to contrast personal styles of leadership to reflect and to look at strengths and some of those challenges and leadership theories and also your own personal leadership skills (GT17).

As Palmer (2017) noted, identity constitutes not only one's strengths, potentials, and good deeds, but also weaknesses, limits, wounds, fears, and biases. In most of the responses that belong to this category, identity development begins from self-awareness. But different layers could be identified from this general conception. In some cases, reflection is becoming aware of what one is doing, during either learning or professional practice. For others, the focus of awareness is about one's prior beliefs, biases, and experiences. Still for others, the focus of awareness is on how they are implicated in the social space they occupy or being aware of their influences on others. What ties all these descriptions together is that reflective learning is seen as helping students become aware of and develop their personal and/or professional identities. The following excerpts from transcripts typify this conception of reflective learning as developing self-awareness:

> I have sort of elucidated here that we need to have this understanding if we are going to be good professionals, we know that we really need to know who we are. And you know, this goes beyond educational professionals. This applies to any professional, having a deep sense of self and an understanding of oneself is critical in any role. (GT21)

> I think coming to know oneself is a big part of maturing as a human being. That is a big part of a valuable education. I think we are seeing now more than ever, what can happen when people do not do that, you know, politically with what is going on right now, we are seeing all the dangers, many of the dangers of what can happen when people do not reflect honestly. And so, to be aware of oneself . . . is a really big thing. (UT15)

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> For me, everything has to do with identity. And so therefore, in order for us to learn anything we have to think about our identity. And in order to do that, it is fundamentally about reflexivity. I cannot teach you who you are as a person . . . Identity theory is about you coming to your own meta understandings of who you are in this world. So fundamentally the only way you can get at that is critical reflexivity, asking the hard questions. (UT30)

The focus on self-awareness and identity development implies that the self becomes the main object of the reflective process. PD25 distinguished reflective and non-reflective learning based on the objects of learning and emphasizing that reflective learning targets the self. She explained about the inward-looking nature of reflective learning in her course:

> So, I think that when the course, the program ran with reflection, that we often, at the end of the semester, and after we finished all the eportfolios, we have half our conference now, roughly everybody has about half our conference with each student. It is like emotionally draining because we are sometimes half therapist, half social workers, half instructors, because it brings out very deep aspects of who they are. (PD25).

In general, in this conception, education is seen as a process of identity development, and reflection as playing a critical role in that process. This conception differs from the previous category that targets change or improvement by examining what works and what did not, as well as the techniques and strategies that can be applied to improve professional practice. The focus here is rather on guiding students on an inner journey toward self-awareness which is crucial to one's life, both personal and professional. This relates to Palmer's (2017) fundamental thesis in his influential book, The Courage to Teach: Exploring the Inner Landscape of a Teacher's Life, that "identity and integrity are more fundamental to good teaching than technique" (p.12). That is, answering the question of "who teaches" is more important than the "what", "how" and "why" questions in teaching and education (Palmer, 2017, p.4).

3.3.4. Developing Critical Consciousness

Critical consciousness is understood as "learning to perceive social, political, and economic contradictions, and to take action against oppressive elements of reality" (Freire, 1970, p.35). In some instances, participants viewed reflective learning as a way of creating such critical awareness of concerning societal issues. Becoming aware of

issues like privilege, oppression, crisis, and hegemony feature strongly in this conception of reflective learning. For instance, the following excerpt from UT08 indicates that she aims to help her students become aware of power dynamics as well as hegemonic ideas and structures that affect their lives:

> So, since this is an education course, it is connected, I show them, I hope that at the end of the course, they get the sense of how they are part of a history of a conversation that has been going on for a long, long time, and because they are interested in power dynamics, I mean, I tried to introduce the idea of the hegemony, right? So, I guess that is what I do for that course. (UT08)

This same participant explains how the goal of developing awareness about critical social issues such as power was approached in her two courses differently.

> I still bring that idea that there is a power structure that permeates any educational space. So, making students aware of that in [course that she is teaching] is a little more explicit. But in [another course she is teaching], making people aware of how their voice is positioned is a little more subtle, but [creating] the sense that this is not neutral space. (UT08)

What differentiates this category of conception of reflective learning from the previous categories is that it aims to help students become conscious of more subtle, complex, and broader systems and structures and the effects these might have on their own lives. The following excerpt from a participant who compares his initial response with a later one during the interview indicates the distinctions between the notions of reflective learning as self-awareness and as critical consciousness:

> Well, I, at the outset I talked about awareness as being a word that I gravitate more to. So, I do feel the difficulty with the word reflective in that it can become a bit self-absorbed as if it is enough for a teacher simply to be aware of themselves and nothing else. Now, I do not think that is the intent of reflective learning, right? … the awareness that it seems to me [is] of greatest value is this much more inclusive awareness, where you are asking similar sort of reflective questions, not only of what happens in the classroom, but what is going on outside the classroom, what is going on in the lives of my students? (GT03)

Empowering students to be more conscious of the world they are living in so that they protect themselves from exploitative and oppressive practices is another example that belongs to this category. This is at least in part explained by an excerpt from the transcript of UT05:

When I see the social context in general, be it the political situation in different countries and the increasing dominance of populist views especially, you know, those who have alienating views, to some extent, I want students to develop reflection so that they won't be taken advantage of by interest groups.

Similarly, UT01 spoke of the way he understood reflective learning as a "political project" with the aim of making students aware of hegemonic structures and systems in the society. Taking the university in which he was working in as an example, the participant explained the crucial purpose that reflective learning could serve in such a project:

I mean, to me it's a political project, particularly in a context of privilege, but I think like, in a context of an institution like [this University], which I would describe as a more white supremacist institution, or at least like white fragile institution, and the education system as a whole within this sort of settler colonial structure that it sort of operates in it, I think, like reflective learning as a way to get students to think more clearly about those systems that operate in their lives. (UT01)

This instructor also illustrated the view of reflective learning as critical consciousness by sharing his expectations from students' reflective responses. When asked about the kind of student activities or responses that made him think that students were engaged in reflective learning, he replied:

Identifying oppression and oppressors. In terms of what I'm looking for, what I see is like, effective reflection is, I mean, it is just like, I am more interested in seeing them showing a critical, you know, kind of a meta, like an ability to see their own lives within social systems. . . But there is a danger there . . . which is that there is kind of a danger of like, I have a sort of fetishizing a certain type of reflection, like a certain type of reflection comes off as more authentic or more meaningful. If it doesn't, I'm very conscious I might have a fear that I have a pattern that I'm expecting. So, I mean, like to oversimplify it, I think like students who are able to examine their own privilege or name their own oppressors are more likely to see that as meaningfully reflective.

In general, reflective learning seen as critical consciousness focuses on challenging and uncovering systems and structures that affect students' personal and professional lives. The reflective process targets larger institutional, social, cultural and political systems with the aim of developing critical awareness about the effects that these systems and structures have on individuals and the society at large.

3.4. Discussion

The purpose of this study was to examine education instructors' conceptions of reflective learning. Our analysis distinguished four different ways that instructors of education courses understand reflective learning. In the first category, reflective learning is viewed as involving critically interacting with course content students are presented with. While targeting the content, the process may involve critical reading responses, interpretation of the meaning of content, and relating ideas and theories to personal experience and knowledge. The primary aim in this category is to enhance students' understanding of the content dealt with in the course. In the second category, improving professional practice, reflective learning targets professional practice. Through both anticipatory and retrospective reflection, the aim is to improve one's practice such as teaching. Identity development characterizes the third conception of reflective learning. In this category, the process of reflection involves examining one's background experiences, biases, assumptions, strengths, and weaknesses with the aim of becoming aware of oneself and developing one's professional and personal identity. The fourth category focuses on broader systems and structures in society, with the purpose of developing critical consciousness about how they affect the lives of individuals and groups who are involved and served by education.

A closer examination of the identified categories reveals two important issues. The first is the importance of reflection both as a tool and outcome of learning. Reflection is used as a means of facilitating better understanding of learning materials, improving professional practice and developing one's personal and professional identity. Being able to reflect is also an expected outcome of learning in higher education generally. The second issue is that while the four conceptions identified in this study are not mutually exclusive (because in some cases responses from the same instructor were coded into more than one category), we contend that the conceptions become broader and more holistic as we move from the first to the last in the order of presentation. At one end, reflective learning as critical engagement with content relates to Jay and Johnson's (2002) "descriptive reflection" as well as considering theory and concepts in relation to personal experience. The main focus, however, is understanding the salient features of a topic or an issue and finding significance in it (Kember et al., 2000). At the other end is reflective learning as critical consciousness, where the goal is understanding and

challenging broader, systemic issues where the result might not be as immediate. This relates to Ward and McCotter's (2004) notion of "transformative reflection" and Mezirow's (1991) "premise reflection" where learners are primed to challenge taken for granted assumptions.

No prior study developed the four categories of conceptions reported in this study. However, individual categories discussed here relate to findings reported elsewhere. For example, in addition to the ones mentioned above, our second category, improving professional practice, is consistent with van Manen's (1977) "practical reflection" that focuses on making informed choices with the purpose of improving professional practice. Similarly, our "identity development" relates to Grossman's (2009) self-authorship reflection in terms of the object of reflection, i.e., looking inward. However, whereas Grossman's self-authorship focuses on analyzing and understanding the effects of inner experiences on one's emotions and actions, reflective learning as identity development is more holistic and emphasizes achieving integrity of the self.

The categories we identified are useful in that not only are they based on empirical data from instructors, but also have practical significance given the sensitive and often complex nature of the contexts prospective professionals join after graduation. For instance, being able to understand content and evaluate the credibility of sources is important for teachers as they educate the younger generation to be critical in their thinking and reasoning, especially in the face of misinformation and disinformation. It is also essential that professionals not only look back and improve their practice, but also determine their position in society and the positive role they can play, be it in terms of training the youth or participating in voting and public service (Feldman, 2009). The contemporary world demands much more of us than understanding subject matter content and applying scientific theories to professional practice. The Coronavirus pandemic has taught us how societal issues affect every individual's personal and professional life. Besides, issues of social justice are prominent in the current North American climate, and developing critical consciousness helps us to understand issues of oppression and discrimination.

Three issues are worth considering for future study. The first is that while the four categories identified in this study are timely and of practical relevance, we don't know much about specific instructional approaches and strategies for developing these

conceptions as learning outcomes for students. This boils down to the issue of learning design. How do we design learning environments to engage education students in various aspects of reflective learning and develop their skills, identities and awareness? The second issue is the question of transfer of learning. That is, how much of their learning about reflection do prospective graduates transfer to their professional practice? Part of such transfer depends on the relevance they see for reflection in the context of their workplace and environment. The third issue relates to the diversity of students in higher education. Canadian institutions host hundreds of thousands of international students and new immigrants. These students bring unique backgrounds, experiences, and perspectives to the learning environment. Hence, teaching and learning approaches in general and reflective learning pedagogy in particular should consider the needs of these diverse students. Due to their cultural backgrounds, they may take a different approach to reflective learning (Ryan & Barton, 2020) and attach different values to it. This also points to the need for examining conceptions of and engagement in reflective learning in relation to student backgrounds.

Chapter 4.

Student Engagement in Reflective Learning and Relationships with Instructors' Conceptions

A modified version of this chapter has been submitted to a peer-reviewed journal as Bailie, A. L. & Gebre, E. H. Student engagement in reflective learning and relationships with instructors' conceptions.

Abstract

Reflection is one of the cross-disciplinary and transferable skills that students need to develop in higher education. It serves crucial purposes in the context of learning and everyday life. The values and purposes attributed to reflective learning can be achieved when students have the opportunities to engage with relevant experiences. The purpose of this study was to determine dimensions of students' perceived engagement in reflective learning and its relations with instructors' conceptions of reflective learning. Principal component analysis with promax rotation and multivariate analysis of variance were conducted on survey data collected from 274 university students in three programs of education sciences. We also examined the relationship of student engagement with findings from a related study on instructors' conceptions of reflective learning. The results indicated four dimensions of student engagement in reflective learning: transformative, personal, metacognitive, and relational reflection. Subsequent analysis of extracted components showed significant differences in undergraduate, preservice teacher education and graduate students' engagement in all four dimensions. Results also indicated differences in students' perceived engagement in reflective learning in relation to instructors' conceptions of reflection. Students whose instructors understood reflective learning as critical engagement with content reported significantly less engagement in transformative and personal reflection. The findings have implications for further study and learning design for reflective learning.

Key Words: Reflective Learning; Engagement; Conceptions; Factor Analysis

4.1. Introduction

Reflection is one of the cross-disciplinary and transferable skills that students need to develop in higher education (Alsina et al., 2017; Colley et al., 2012). This is because the development of reflective skills serves crucial purposes in the context of learning and everyday life. Reflective learning allows students to understand their experiences in non-absolute terms (Coulson et al., 2007). Such an understanding helps them make informed decisions and consider relevant data (Colley et al., 2012). The benefits of reflection can also be related to the enhancement of the quality of learning in their higher education experience. For instance, reflective learning experiences can lead to high quality discussion, engagement with materials on a personal level, and greater confidence in one's abilities and self-awareness (Dukewich & Vossen, 2015). Moreover, reflective learning enhances students' agency for learning as power shifts from the teacher to the students (Lin & Schwartz, 2003).

The values and purposes attributed to reflective learning can be achieved when students have opportunities to engage with relevant experiences. The development of reflective skills should be given priority in university classes if real engagement and improvement is to be achieved (Ryan, 2011) in the "ever challenging personal, cultural, and structural landscape of our students and education today" (Duggins, 2019, p.71). To this end, students need to engage in reflection through concrete, guided and contextual experiences.

Students' engagement in reflective learning often depends on their perceptions of its relevance. In other words, for students to engage in reflection, they need to not only have an encounter with the experience but also perceive the potential significance inherent in the experience (Rodgers, 2002). Since students differ in their ability to perceive such significance, clarifying the importance of reflection for students could help to facilitate their engagement. They need to know how the reflective activities relate to the purpose and context of their learning experience (Ramsey, 2010). For instance, Mitchell (2017) reported that many undergraduate students do not see the value of reflective tasks for their learning or professional practice. As a result, they tend to complete the tasks merely for the purpose of meeting course requirements where they undertake pseudo-reflection (Ramsey, 2010).

Previous studies focused on examining the extent to which students engage in reflective learning through analysis of journals, essays, and papers (Gelfuso, 2016). Such studies would help to determine the levels of students' reflections and thereby devise ways of improving it. However, it is also important to investigate students' perceptions of their reflective learning experiences. Reflective learning experiences and outcomes are subjective in nature (Cambra-Fierro & Cambra-Berdún, 2007; Harford & MacRuairc, 2008) in that reflective learning processes, strategies used to foster reflection, and experiences that trigger reflection are different for different people (Boyd & Fales, 1983). Thus, understanding students' perceptions of their engagement in reflective learning is important since each person is a judge when it comes to deciding whether they were engaged in reflective leaning as well as whether it was meaningful and significant (Cambra-Fierro & Cambra-Berdún, 2007).

Accordingly, studies have been conducted to determine students' reflective learning engagement and capacity through self-report surveys (e.g., Aukes et al., 2007; Kember et al., 2000; Larrivee, 2008; Priddis & Rogers, 2018; Sobral, 2000). Within this approach, a wide range of frameworks was adopted, and different dimensions of reflective learning and practice were identified and discussed. Though existing frameworks and tools provide valuable insights about the nature of student engagement in reflective learning, it is worth asking questions about their use in contexts other than those for which they were developed and theorized. Some of these tools (e.g., Kember, et al., 2000) are too generic to be suitable in examining reflective engagement in the context of education courses. Others were developed and used in the context of health sciences (e. g., Aukes et al., 2007; Sobral, 2000). In addition, some of these frameworks have been challenged both statistically and conceptually. For instance, confirmatory studies by Lethbridge et al. (2013) and Zhang & Dempsey (2019) did not support the four-factor structure of the widely used generic framework developed by Kember and colleagues. In the field of education, frameworks such as those developed by Larrivee (2008) and Hatton and Smith (1995) provided valuable insights on understanding and capturing preservice teachers' reflective engagement and capacity. However, the focus has mainly been the practicum component of teacher preparation programs. Our study therefore aimed to explore dimensions of students' engagement in reflective learning in a wide range of courses and programs in the field of education.

4.1.1. Student Engagement in Reflective Learning

In higher education research and discourse, the notion of student engagement is pervasive (Baron & Corbin, 2012; Kahn, 2014; Kahu, 2013; Zepke, 2017). This is due to its presumed association with positive educational processes and outcomes such as effective learning and quality education (Coates, 2005; 2007), academic achievement (Kahn, 2014; Kahu, 2013), student autonomy (Bryson & Hand, 2007), and student success as defined by criteria including retention, completion, and preparedness for employment (Zepke, 2017). As it is often related to a wide array of student experience in higher education (Coates, 2007), there exist different views and frameworks of student engagement. Baron and Corbin (2012) asserted that "ideas about student engagement in the university context are often fragmented, contradictory and confused" (p. 759).

At a broader level, Zepke (2017) discussed mainstream and critical conceptions of student engagement. The mainstream view focuses on learner agency, success, and personal well-being. The critical view focuses on engaging students in a holistic way with the goal of fostering social justice. In a related vein, McMahon and Portelli (2004) grouped definitions and meanings of student engagement into three categories: "conservative or traditional, liberal or student-oriented, and critical-democratic" (p. 61). They noted that the critical-democratic conception is qualitatively different from the other two categories because of its focus on both procedural and substantive aspects of student engagement. That is, engagement includes not only techniques and behaviours but also purposes of personal and social transformation. Another widely recognized perspective of student engagement includes behavioural, affective, and cognitive components (Axelson & Flick, 2010; Baron & Corbin, 2012; Goldspink & Foster, 2012).

Student engagement has been theorized and studied as a generic construct encompassing varied aspects of student experience in higher education (Coates, 2007). However, the nature of student engagement can take different forms depending on the context of the learning environment. In the context of technology-rich learning environments, for instance, Gebre et al. (2014) identified four components of student engagement, which include goal clarity, cognitive and applied, social, and reflective engagement. In another study on campus-based undergraduate students' engagement with learning management systems, Coates (2007) characterized students' engagement into four styles: intense, collaborative, independent or passive.

Cognizant of the varied demands of tasks in different learning environments, it would be crucial to understand the nature of student engagement pertaining to more focused and transformative student learning experiences in higher education. Zepke (2014) called for extending student engagement research beyond instrumental and generic indicators to include issues like active citizenship and well-being. Bowden et al. (2021) also underscored the transformative outcomes of student engagement in post-secondary education. Reflective learning experiences can provide students with opportunities for engaging with such kinds of life-wide and lifelong experiences that feed into and out of the classroom learning environment. In a study on the reflexive basis of engagement in online learning environments, Kahn et al. (2017) demonstrated the significant role that the reflexive demands of the learning environment play in student engagement. This study therefore aims to explore dimensions of student engagement in reflective learning in education courses at a Canadian university.

4.1.2. Instructors' Conceptions of Reflective Learning

The relations between instructors' conceptions and practices of teaching have been widely studied. Such studies are premised on the idea that our conceptions and beliefs influence the decisions we make on various aspects of the instructional process and thereby students' engagement and learning. In the past four decades, studies have demonstrated various kinds of relationships between conceptions and practices of teaching and learning in higher education (e.g., Kember & Kwan, 2000; Lam & Kember, 2006; Pedrosa-de-Jesus & Lopes, 2011). Pedrosa-de-Jesus and Lopes's (2011) study, for instance, indicated how instructors' conceptions of teaching and adopted teaching approaches are related and maintained during the three years of the study period.

Building on research on conceptions of teaching and related instructional approaches and student learning, it is imperative to examine instructors' conceptions of reflective learning because of the potential effects it might have on the nature of students' reflective engagement. Students' perceptions of their academic tasks influence their approaches to and engagement in the task (Trigwell & Ashwin, 2006) and their understanding of the tasks is also situated in that they adopt their understanding based on perceived learning contexts. The relationships between instructors' conceptions and students' engagement in reflective learning could thus be mediated by the learning tasks and experiences that instructors design and which, in most cases, are informed by their

conceptions. It can be then argued that instructors' conceptions of reflective learning could influence students' engagement through the effect it has on the design of tasks and learning environments.

In higher education programs, such as education, health and social work, efforts have been made to incorporate reflective learning experiences in courses. However, there is a paucity of research on instructors' conceptions of reflective learning. Sukhato et al. (2016), for instance, posited that studies on instructors' perceptions and experiences are relatively scarce despite the important role they play in facilitating reflective learning. In the context of education courses, Bailie et al. (2021) have recently examined instructors' conceptions of reflective learning. Through a phenomenographic approach, we identified four qualitatively different ways of understanding reflective learning: critical engagement with content, improving professional practice, identity development, and developing critical consciousness.

In the first category, critical engagement with content, reflective learning is understood as critical and in-depth intellectual engagement with ideas, theories, principles, and concepts that are presented in the course. In the second category, reflective learning is seen as a way of improving professional practice. That is, one's practice, such as teaching and leadership, is considered a primary object of reflection with the goal of improving it. The process involves both anticipatory reflection on potential issues of professional contexts and retrospective reflection on practice-related experiences. Reflective learning as identity development is an inward-looking conception that focuses on examining one's beliefs, assumptions, biases, and preconceptions with the aim of developing self-awareness. The fourth category, developing critical consciousness focuses more on larger systems and structures. That is, reflective learning entails providing students with opportunities of questioning and challenging taken-for-granted assumptions and practices with the aim of developing critical awareness of how institutional, societal, cultural, and political systems and structures affect individuals, groups, and the society at large (Bailie et al., 2021).

The present study extends findings on instructors' conceptions of reflective learning to students' perceived engagement in reflection. To the best of our knowledge, there is no research that examines students' engagement in reflective learning in relation to instructors' conceptions. This study therefore focuses on determining students'

perceived engagement in reflective learning and its relations to instructors' conceptions in the context of education courses. It encompasses a wide range of courses offered at different levels in a Faculty of Education at a Canadian university. Specifically, the purposes of the study were to: 1) determine dimensions of students' perceived engagement in reflective learning; 2) examine differences in perceived engagement in reflective learning among undergraduate, graduate, and preservice teacher education (PTE) students; and 3) examine differences in students' perceived engagement in reflective learning in relation to their instructors' conceptions of reflective learning.

4.2. Method

Participants for the survey were recruited from undergraduate, graduate, and preservice teacher education programs of the Faculty of Education at a Canadian university. Based on a preliminary assessment of course descriptions posted on the University's website to facilitate student enrollment, we selected courses that incorporated some form of reflective learning experiences. This could be an explicit statement of reflection as a course or program principle (e.g., "the program uncovers how to use critical inquiry and reflection as tools for ongoing professional development"); formulation of reflection or reflective learning as one of learning outcomes or goals in the courses (e.g., "students will demonstrate the ability to engage in self-reflection"); or inclusion of reflective learning activities or assignments (e.g., "each student writes a reflective log"). Then, the selected courses' instructors were invited to participate in the research. Once consent was obtained from instructors, their students were invited to participate. As a result, 32 instructors agreed to participate and a total of 274 students completed the survey.

This paper mainly focuses on the survey of students' perceived engagement in reflective learning. However, the findings from the phenomenographic analysis of interview transcripts of the 32 instructors (Bailie et al., 2021) were also used to examine the relations between instructors' conceptions and students' engagement in reflective learning. Based on prior analysis of categories of conceptions, 11 instructors were assigned to the category of critical engagement with content, 7 to improving professional practice, 5 to identity development, and 9 to developing critical consciousness categories. Although some participants held multiple conceptions, they were assigned to one of the four categories based on most recurring ideas in their interview responses

and/or using exemplifying core elements of participants' understandings of the phenomenon. The students who completed the survey were taking courses taught by these 32 instructors. Among the 274 students who completed the survey, 131 (47.8%) were undergraduate students taking different education courses, 97 (35.4%) were post-baccalaureate preservice teacher education students, and 46 (16.8%) were masters students in different fields of education. Education courses in these programs focus on curriculum, pedagogy, educational technology, educational psychology, educational leadership, learning environments, and related issues in education.

For this study, data were collected from students through a survey. A new instrument was developed for the purpose of this research (Appendix A). The development process involved a thorough review of the extant literature on students' reflection and research tools. Based on the review, I developed an initial list of 43 items that were related to reflective learning experiences. The list was reviewed by two PhD fellows in education and a Learning Sciences professor to ensure the face validity of the items. The feedback obtained from these assessors helped to reword vague items and delete closely related items, which reduced the list to 32 items. Moreover, a thorough discussion on each item among the research team helped to refine the language of the items and to retain a final list of 26 closed form items that were intended to determine students' perceived engagement in reflective learning experiences pertaining to education courses. The items were constructed on a five-point Likert scale ranging from 1 representing 'totally disagree' to 5 representing 'totally agree'. In addition, the survey included demographic questions and open-ended items.

Data were collected over three academic semesters (Spring, Summer, and Fall) using paper-based and online surveys based on the preferences and convenience of participants. I visited each participant instructor's class in order to provide students with explanations about the research and to invite them to participate. Participants who consented to participate and showed a preference for a paper-based survey completed it during the classroom visit. For others, an online survey link was sent by their instructors.

In this study, three variables (independent and dependent) were considered for analyses. The independent variables were the program levels in which students were taking courses (i.e., undergraduate, graduate, and preservice teacher education) and instructors' conceptions of reflective learning. In the graduate programs, students were

enrolled in master's programs with variety of specializations in education such as mathematics education, equity studies, educational technology, and educational leadership. The preservice teacher education program (PTE) is a post-baccalaureate teacher education program which students take to become teachers after completing a bachelor's degree in different disciplines. At the undergraduate level, students from various faculties and programs, including education, were enrolled in courses offered by the Faculty of Education. Instructors' conceptions of reflective learning, as described in a related study (Bailie et al., 2021) in a larger project with same participants, was the second independent variable. In Bailie et al. (2021), we identified four categories of instructors' conceptions: reflective learning as critical engagement with content, as improving professional practice, as identity development, and as developing critical consciousness. The third variable in the present study, students' perceived engagement in reflective learning, was entered as a dependent variable.

To answer the three research questions, principal component analysis (PCA) and multivariate analysis of variance (MANOVA) were carried out. PCA was carried out to extract a small number of components or factors (Meyers et al., 2017) of reflective learning from the survey that initially consisted of 26 items. A combination of criteria such as eigenvalues, scree plot, communalities and structure coefficients or loadings were used to determine dimensions of reflective learning (Henson & Roberts, 2006; Meyers et al., 2017). Once the components were built and their reliabilities ensured, two sets of MANOVA were carried out to examine differences (if any) in students' perceived engagement in reflective learning as a function of program levels as well as instructors' conceptions of reflective learning.

4.3. Results

4.3.1. Dimensions of Student Engagement in Reflective Learning

Preliminary principal components analysis (unrotated) on 26 items resulted in four components with eigenvalues greater than 1.00. The Kaiser-Meyer-Olkin measure of sampling adequacy was .94, indicating that the data were suitable for principal components analysis. Similarly, Bartlett's test of sphericity was significant ($p < 0.001$), indicating sufficient correlation between the variables to proceed with the analysis. Then, a rerun of principal component analysis with promax rotation was carried out on 23

items, removing three items with low communality values which were not substantially captured by the component structure (Meyers et al., 2017). We performed an oblique rotation (promax) because of enough correlations (higher than .32) among the components that warrant the strategy (Tabachnick & Fidell, 2013). As a result, four components were extracted, cumulatively accounting for 63.3% of the variance in student engagement.

The first component, which accounts for 43.4% of the variance, consists of nine variables. The component includes variables related to asking critical questions and challenging established beliefs, norms, and traditions. It also focuses on examining educational issues in terms of the wider socio-cultural and political context. Whereas some of the variables entail questioning and challenging common assumptions and practices, the component also incorporates variables that indicate the changes that engaging with these experiences brings about. These include developing new perspectives (Item 5 & 8), reframing professional practice (Item 6), and developing personal theories (Item 7) (See Table 4.1). We therefore labelled this component as transformative reflection.

The second component, which accounts for 10% of the variance, is comprised of five variables. The variables that loaded on this component focus on examining, understanding, and relating personal experiences and background in the learning process. In this component, exploring educational beliefs and practices in relation to personal life experiences and educational backgrounds is emphasized. Thus, we named it personal reflection.

The third component consists of five variables and accounts for 5.5% of the total variance in student engagement. Analyzing and appraising one's learning goals, strategies, reactions, and development characterize the variables that loaded on this component. The target being one's learning and thinking about learning goals and strategies, we labeled this component metacognitive reflection.

The fourth component accounts for 4.4% of the total variance and consists of four variables. A closer look into these four variables reveals that the focus is on reflecting with others, mainly peers. That is, students engage in examining both others'

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perspectives and their own in relation to those perspectives. We interpreted this component as relational reflection.

Table 4.1. **Four components rotated structure coefficients: Principal component Analysis/Promax**

	Variables	TFR	PRR	MCR	RLR
1	Critically question learning experiences in terms of moral, socio-cultural and political dimensions	.843			
2	Question commonly held beliefs and assumptions about educational issues (e.g., the nature of assessments, student-teacher relationships, etc.)	.838			
3	Recognize and challenge your firmly held beliefs about educational matters such as teaching, learning, technology, research, etc.	.830			
4	Challenge conventional norms and practices in the field of education	.822			
5	See things anew or differently based on alternative perspectives from others	.793			
6	Reframe or reconstruct future professional practice	.788			
7	Develop personal theories of education	.760			
8	Discover and change personal beliefs, which you had previously believed to be right	.726			
9	Suspend your own emotions and take the perspective of others to realize how other people may feel	.631			
10	Think about the meaning of issues/topics you were learning in relation to your personal experiences		.837		
11	Explore the role of your personal background and life history in the forming of educational beliefs and practices		.821		
12	Examine and understand the factors (e.g., prior experiences, people, courses, readings, etc.) that have an impact on your professional identity		.800		
13	Draw personal relevance and meaning from learning/course experiences		.796		
14	Appraise your experience so you can learn from it and improve your future performance		.706		
15	Discover professional development needs you were not previously aware of			.542	
16	Recognize and evaluate what you learn and how you learn			.801	
17	Understand what you need to do to achieve your educational goals, for example your learning approaches			.796	
18	Become aware of and reflect on the uncertainties and conflicts in scientific explanations about issues dealt in the course			.675	
19	Analyze the intentionality and depth of your reactions to course activities			.645	
20	Recognize and reflect on differing perspectives of peers on a particular issue dealt in the course				.809
21	Assess the validity of reasons and perspectives presented by peers				.784
22	Test your own judgments against those of others				.764
23	Evaluate and take personal positions on controversies related to course contents				.667

Note: TFR (Transformative Reflection); PRR (Personal Reflection); MCR (Metacognitive Reflection); RLR (Relational Reflection)

Cronbach's alpha test of reliability indicated coefficients of .923, .858, .782 and .798 for transformative, personal, metacognitive, and relational reflection respectively. Based on Meyers et al. (2017) guidelines for interpreting Cronbach alpha reliability

coefficients, the results indicate an outstanding to very good reliability. Composite scores for the latent variables were computed based on the mean of scores of observed variables subsumed in each component.

4.3.2. Differences in Students' Perceived Engagement in Reflective Learning

Two sets of MANOVA were computed, using the two independent variables, i.e., program levels and instructors' conceptions of reflective learning, to examine their effects on students' perceived engagement in reflective learning.

Students who participated in this survey were from three programs in the Faculty of Education: undergraduate (N = 131), preservice teacher education (N = 97) and graduate programs (N = 46). We presumed that the focus and extent of reflective learning experiences varies across program levels. Hence, we conducted a one-way MANOVA to examine how engagement in the four components (dependent variable) we identified varies as a function of program levels (independent variable). Bartlett's test of sphericity was statistically significant (approximate chi square = 460.283, df = 9, p< .001) indicating sufficient correlation between the dependent variables to support the MANOVA. We examined the multivariate effect using Pillai's Trace because of "its robustness in the presence of unequal multivariate variance (Meyers et al., 2017, p.812).

The multivariate effect of program levels was statistically significant, Pillai's Trace = .201, F(8, 538) = 7.504, p < .001, indicating that program level effect accounted for 20.1% of the multivariate variance. Following the statistically significant result of the multivariate test, we analyzed the univariate effects. Table 4.2 shows univariate F ratios, eta squared values, means and standard deviations of the groups for each dependent variable. The effects for all four components were statistically significant at p values of <.05. Eta squared values of .166 for transformative reflection and .052 for personal reflection indicate large and medium effects respectively (Cohen cited in Meyers et al., 2017). On the other hand, the results indicate a very small effect of program level on metacognitive and relational reflection.

Table 4.2. **Means, Standard Deviations and *F* Ratios of undergraduate, PTE and graduate students' engagement in the four components of reflective learning**

Component	F(2,271)	eta^2	Undergraduate (N=131)		PTE (N=97)		Graduate (N=46)	
			M	SD	M	SD	M	SD
Transformative Reflection	28.11	.166	3.37	.87	4.11	.64	3.86	.50
Personal Reflection	8.43	.052	3.99	.68	4.33	.63	4.20	.54
Metacognitive Reflection	3.54	.018	3.69	.73	3.92	.69	3.68	.60
Relational Reflection	4.17	.023	3.60	.76	3.86	.73	3.83	.50

The Tamhane T2 post hoc test was applied to the variables in order to closely examine how the univariate effects played out across the program levels. The results indicate that graduate and PTE students reported engaging in more transformative reflection than undergraduate students. Also, PTE students' perceived engagement in personal reflection was significantly higher than undergraduate students. However, graduate students' mean value on personal reflection did not show a statistically significant difference from either undergraduate or PTE mean values. For the third and fourth components, i.e., metacognitive and relational reflection, the univariate effects, though statistically significant, are very small as evidenced by eta squared values. The post hoc test indicated marginal differences between undergraduate and PTE students' engagement in metacognitive and relational reflection, in favor of PTE students. However, graduate students differ neither from undergraduate nor from PTE students in metacognitive and relational reflection.

We also examined the effect of instructors' conceptions of reflective learning on students' perceived engagement. The multivariate effect of instructors' conceptions was statistically significant, Pillai's Trace = .260, $F(12, 807) = 6.382$, $p < .001$, indicating that instructors' conceptions effect accounted for 26% of the multivariate variance. Following the statistically significant result of the multivariate test, we analyzed the univariate effects. Table 4.3 shows univariate *F* ratios, eta squared values, means and standard deviations of the groups for each dependent variable. The effects for three of the four components, i.e., transformative, personal, and metacognitive reflection were statistically significant. On the other hand, the results indicate that instructors' conceptions did not have a significant effect on students' engagement in relational reflection. Eta squared values of .079 for transformative reflection and .062 for personal reflection indicate

medium effects (Cohen cited in Meyers et al., 2017). On the other hand, the effect on metacognitive reflection is small.

Table 4.3. **Students' engagement in four components of reflective learning as it relates to categories of instructors' conceptions**

Component	$F(3,270)$	eta^2	CEC (*N*=106) M	CEC (*N*=106) SD	IPP (*N*=39) M	IPP (*N*=39) SD	IDD (*N*=42) M	IDD (*N*=42) SD	DCC (*N*=87) M	DCC (*N*=87) SD
Transformative	8.86	.079	3.44	.84	4.09	.58	3.95	.79	3.76	.78
Personal	7.02	.062	3.93	.63	4.38	.47	4.23	.84	4.26	.60
Metacognitive	3.14	.023	3.82	.59	3.94	.61	3.86	.84	3.59	.76
Relational	1.14	.002	3.69	.71	3.88	.61	3.62	.85	3.77	.72

Note: CEC (critical engagement with content); IPP (improving professional practice); IDD (identity development); and DCC (developing critical consciousness)

The Tamhane T2 post hoc test was applied to transformative, personal, and metacognitive reflection and showed statistically significant univariate effects. The results indicate that students whose instructors understood reflective learning as critical engagement with content reported significantly less engagement in transformative and personal reflection. Also, instructors' conception of reflective learning as developing critical consciousness is related with less engagement in metacognitive reflection. However, instructors' conceptions of reflective learning did not show a statistically significant difference in students' engagement in relational reflection.

4.4. Discussion

In this study, we examined dimensions and differences of student engagement in reflective learning. The four dimensions our study reported are in line with the literature, although one or more dimensions are emphasized over others in different studies and frameworks. For instance, scholars (e. g., Brookfield, 1995) who subscribe to a critical theory perspective tend to focus more on challenging assumptions and examining larger sociopolitical contexts, and hence relate to the transformative dimension. The importance of reviewing and reflecting on one's personal experience is pervasive in the literature of reflective learning and practice (e.g., Boud et al., 1985; Boyd & Fales, 1983; Dewey, 1933). The emergence of personal reflection from PCA as one dimension of students' engagement confirms the place it has in the theoretical discussion. Metacognitive reflection, which involves thinking about thinking and learning as well as self-monitoring and regulation has also been considered an inherent part of reflection

(Mair, 2012). Besides, students should engage in reflecting not only on their prior experiences and learning strategies but also on the perspectives of others. Indeed, whether reflection is a solitary private undertaking or a social practice has been an issue in the concept of reflection (Conway, 2001). Our findings showed that reflecting with others is an important dimension. Such relational reflective engagement includes not only interaction and dialogue but also opportunities to weigh and evaluate alternative perspectives presented by others, such as peers.

Differences in students' levels of engagement across the three programs can be partly attributed to the design of learning tasks. Higher mean scores for PTE students on all four dimensions might be attributed to the program's explicit focus on critical inquiry and reflection compared to the other programs. Besides, we observed collaboration among the PTE instructors in designing tasks, which is likely to have contributed to the provision of significant reflective learning experiences to their students. On the other hand, graduate students significantly differ from their undergraduate counterparts in their engagement in transformative reflection, but not in personal reflection. This appears a surprising finding, as graduate students are expected to explore a wide range of professional and life experiences related to course experiences. Despite our expectation, the findings imply that the design of learning tasks is more impactful on the nature of students' engagement than their background and experiences. Further qualitative studies can help to gain insights about the nature of instructional strategies that facilitate student engagement in reflective learning.

The findings on instructors' conceptions and students' perceived engagement also provide valuable insights about the important role that the instructor's conception plays in the process of designing learning environments. When instructors understood reflective learning as critical engagement with content, the main objects of reflection become concepts, principles, and theories of the subject matter. It is therefore quite logical that students who were taught by instructors with such conceptions reported significantly less engagement in transformative and personal reflection. These dimensions of reflection entail going beyond prescribed subject matter theories and principles to include experiences from societal and personal encounters respectively.

The small and insignificant effects of instructors' conceptions on metacognitive and relational reflection are also comprehensible in that both dimensions of reflection

can easily be aligned with the purposes embedded in the four categories of conceptions. For instance, reflecting with peers and in relation to their perspectives, which is a key indicator of relational reflection, can be considered a relevant learning experience by instructors with any of the four categories of conceptions.

The values of reflective learning extend beyond the walls of university classrooms. The world we inhabit is increasingly becoming more complex, unpredictable, and challenging. The ability to critically reflect on the encounters of work and everyday life is of utmost importance. Schaffer and Rodolfa (2020) underscored the crucial role of reflection, stating, "humans will never attain a level of knowledge that obviates the necessity of reflecting carefully about ourselves and actions" (pp. 1-2). This points to the need to provide students with opportunities to develop the capacity and dispositions to critically reflect during their higher education experiences. This in turn requires intentional design of learning environments that encourage students to engage in reflecting not only on course content and learning strategies but also on personal beliefs and assumptions as well as broader sociocultural and political structures and practices. In that regard, the role of instructors who design such kinds of learning environments is crucial. Hence, faculty development endeavors need to aim toward developing an expanded awareness of possibilities through exposure to alternative conceptions of reflective learning. Besides, it could also be helpful to adopt the practice of collaborative course design and team teaching evident in the preservice teacher education program in other programs in higher education.

Chapter 5.

Summary and Conclusion

Reflective learning has gained growing attention in teaching and learning in higher education, particularly in professional preparation programs (Ewing et al., 2022; Guo, 2022). The aim of this dissertation has been to explore instructors' conceptions of and students' engagement in reflective learning. In this chapter, I present a summary of the main findings from the three studies, followed by some discussion and an exploration of the implications of the work.

5.1. Summary of Findings

This dissertation is comprised of three manuscripts. The first manuscript (Ch. 2) presents a systematic review of studies on reflective learning. The purpose of this manuscript was to identify the range of conceptualizations of reflective learning and related instructional strategies that are evident from studies on education courses. Although reflective learning and practice has been theorized and studied for several decades, there is still a lack of clarity regarding what it entails and how it can be fostered (Alexander, 2017; Chan & Lee, 2021; Clarà, 2015; Moon, 2004). The systematic review was therefore motivated by the need to understand conceptualizations of reflective learning and related strategies, and thereby lay a foundation for the empirical parts of the study.

The review resulted in five categories of conceptualizations of reflective learning. One of the common conceptualizations of reflective learning is as a meaning-making process building on experiences that students are engaged in through reading, discussion, lectures, and field activities. Another view of reflective learning focuses on evaluating perspectives and alternatives. That is, reflective learning entails comparing and evaluating different sources of knowledge and experience and making rational choices among them. Reviewing and evaluating practice, with a particular focus on teaching practice, characterizes the third category. Other studies emphasized metacognition and self-reflection in their descriptions of reflective learning. Here the processes of interrogating one's prior beliefs and assumptions and examining and

monitoring learning strategies and goals are emphasized. In the last category, reflective learning is described as the process of examining educational issues and practices in terms of wider sociocultural and political contexts. These processes of reflective learning were applied to targets of reflection which include educational concepts, practices, learning processes, and personal and social factors. Students were engaged in reflecting on these targets through varied strategies such as modeling reflection through stories, questions and exemplars, and journal, autobiographic and topical writing tasks.

The findings from the systematic review helped to establish perspectives of reflective learning in the extant literature. In addition to what was understood from the review of studies, it was also necessary to explore how practicing university instructors understand reflective learning, since they are those who are engaged in designing and enacting reflective learning experiences. The purpose of the study which is reported in the second manuscript (Ch. 3) was therefore to gain insight into university instructors' conceptions of reflective learning in the context of education courses. Although we were able to capture a range of conceptualizations through a systematic review of the literature, we didn't use these as a priori categories for analysis. Instead, we inductively analyzed instructors' interviews. Such approach allows to "look at the data afresh and undiscovered patterns and emergent understandings (Patton, 2002, p. 454). It also created an opportunity to discuss conceptions identified from instructors' interviews in relation to the existing literature in the area.

Analysis of instructors' interviews enabled the delineation of four qualitatively different conceptions of reflective learning. Instructors who viewed reflective learning as critical engagement with content emphasized going beyond rote memorization to develop an in-depth understanding of concepts, ideas, and theories. In another category, instructors' conceptions of reflective learning focused on improving professional practice. Whether one engages in retrospective or anticipatory reflection, the aim here is to enact changes in professional practice. Promoting the development of learners' personal and professional identity characterizes the third category of conceptions of reflective learning. Here awareness of one's beliefs, assumptions, and actions is considered central to the reflective learning process. Instructors also understood reflective learning as developing critical consciousness. In this category, societal issues such as hegemony, oppression, privilege, and power become the primary objects of reflection with the aim of creating awareness among the learners.

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Scholarly efforts to understand, theorize, and propose various conceptualizations and perspectives are intended to develop effective ways of establishing fertile grounds for students' engagement and thereby support the development of their reflective capacity. Hence, in the study that is reported in the third manuscript (Ch. 4), I extended and related findings on instructors' conceptions to students' reflective learning experiences. Specifically, the purposes of this study were to: 1) determine dimensions of students' perceived engagement in reflective learning; 2) examine differences in perceived engagement in reflective learning among undergraduate, graduate, and preservice teacher education (PTE) students; and 3) examine differences in students' perceived engagement in reflective learning in relation to their instructors' conceptions. Through the method of principal component analysis, I identified four dimensions of student engagement in reflective learning as reported by students themselves: transformative, personal, metacognitive, and relational reflection. Students reported engaging in transformative reflection that involves asking critical questions to challenge taken-for-granted assumptions and practices. Such engagement also leads to changes in one's perspectives and/or practices. Another form of reflective engagement is personal reflection that focuses on relating formal university learning experiences to personal life experiences and educational backgrounds. In the third dimension, metacognitive reflection, participants reported engaging in analysis and evaluation of learning strategies and processes. Lastly, in relational reflection, students engage with others and examine issues from diverse perspectives.

After having determined dimensions of students' perceived engagement in reflective learning, I examined if there was a relationship between their engagement and instructors' conceptions of reflective learning. A multivariate analysis of variance (MANOVA) showed that instructors' conceptions were indeed related to the nature of their students' engagement in reflective learning. More specifically, students' engagement in transformative and personal reflection was significantly less for those whose instructors understood reflective learning as critical engagement with content. On the other hand, variations in instructors' conceptions didn't significantly relate to relational reflection. The results also indicated differences in students' reflective learning experiences across program levels. That is, the mean values on all four dimensions of reflection were found to be higher for students who were taking courses in the preservice teacher education (PTE) program. Compared to undergraduate students, PTE students'

engagement was significantly higher in transformative, personal, metacognitive, and relational reflection. On the other hand, graduate students' engagement in transformative reflection was significantly higher than that of undergraduate students, but there were no significant differences between graduate and undergraduate students in the other three dimensions.

5.2. Discussion

5.2.1. Conceptualizations of reflective learning

The findings generally indicated that the range of conceptualizations illustrate qualitatively distinct understandings of reflective learning. As stated in the summary section of this chapter, the systematic review of the literature resulted in conceptualizations of reflective learning ranging from content understanding to analysis of sociopolitical contexts of education.

At a more basic level, reflective learning is described in terms of the level of cognitive engagement with course content. More specifically, reflective learning entails an in-depth interaction with course concepts, ideas, and theories. Although expressed in a variety of ways, reflection in this category targets disciplinary content with the aim of developing deep conceptual understanding. Such conceptions focusing on mental processes and individual meaning making experiences are related to cognitive-oriented perspectives of reflection (Risko et al., 2002; Thompson & Pascal, 2012). When viewed in this way, reflective learning activities have been mainly used for consolidating disciplinary knowledge (Guo, 2022). This view of reflective learning can be also related to Mezirow's notion of instrumental learning which, unlike emancipatory learning, focuses on scientific knowledge and skills that are needed to carry out tasks often having predetermined outcomes (Mezirow, 1996, 2003; Kreber, 2022). Although the value of instrumental knowledge is irrefutable, meaningful reflective learning experiences should go beyond promoting fidelity to expert knowledge. Instead, post-secondary education should give sufficient focus on providing students with opportunities to engage in critically analyzing the limitations of such technical and instrumental knowledge as well as in questioning the status quo (Chappell, 2007; Kincheloe, 2004).

Another distinct conceptualization of reflective learning evident from the systematic review focuses on reviewing and evaluating practice in professional contexts. Such views are not uncommon, as the influences of Schön's (1983; 1987) reflection-in-action and reflection-on-action and Kolb's (1984) experiential learning theory are profound. Because Schön's work has been influential in professional programs such as teaching and nursing, the concern has been more on reflection-on-action, reflection that is undertaken after the event or practice has occurred (Nguyen et al., 2014). In a similar vein, conceptualizations informed by experiential learning theory also emphasize retrospective reflection in which reflection is understood as the learner's reaction to the experience (Boud et al., 1985; Kolb, 1984; Kolb et al., 2001). Although there are different ways of understanding the notion of experience in experiential learning theory, it is usually used in the sense of placements, field work, internship, and work-based learning in formal education contexts (Moon, 2004). The results of the systematic review also showed that conceptualizations focusing on practice often include descriptions that are related to the practicum component of professional preparation. Indeed, opportunities to retrospectively review and evaluate one's experience are important learning activities for prospective professionals. However, it becomes problematic when reflective learning experiences are limited to the practice context. This is because more of the learning experiences in higher education focus on classroom learning than experiential learning. Besides, retrospective reflective activities focusing on practice are often less relevant to students with little professional experience (Urzúa & Vásquez, 2008). On the other hand, reflection-before-action, which most course-based learning experiences focus on, allows students to deliberate and consciously decide on possible alternatives (Edwards, 2017; Loughran, 1996).

Even when it is necessary to reflect on practice-related experiences, there are concerns pertaining to the narrow scope of such reflections. It is argued that the notions of reflection-in and on-action that both target practice emphasize the pedagogical context and neglect socio-political contexts (Morrison, 1996). Arguing that theories of learning are theories of society, Philip and Sengupta (2021) posited that perspectives that neglect sociopolitical contexts are equally political and perpetuate existing problems of equity and justice. Hence, even the aims of improving professional practice through reflection can be realized not only by reflecting on technical and practical factors but also on the wider socio-cultural and political contexts in which the practice is situated (Dohn,

2011). In teacher education, for instance, reflection should aim at not only developing knowledge of pedagogical strategies that help to address teachers' survival concerns but also an awareness of the complex ways that sociopolitical factors shape the various aspects of practice such as educational goals and good teaching practices. So, while still focusing on practice, there can be a significant difference in the intended purposes of engaging in reflective learning. Reflection can be used to examine if intended sets of practices are working as intended, or to question the intent itself and challenge the structures and systems that framed those sets of practices (Brookfield, 2009).

Whether reflection should focus on the self and its inner experiences and assumptions, or wider social factors has been disputed in the literature (e.g., Dohn, 2011; Frost, 2010; Rose, 2013). The findings of this study confirm that both are important foci in the conceptualizations of reflective learning, albeit with differing levels of attention. Some of the studies we reviewed described reflection as inquiry directed towards the self. These studies emphasized metacognitive and self-reflection processes that target learning strategies and prior assumptions and experiences. On the other hand, conceptualizations focusing on wider sociopolitical factors in which learners engage in analysis of educational issues in terms of such larger frameworks are consistent with critical perspectives of reflective learning. For instance, Fook et al. (2006) made distinctions between critical reflection and reflection, arguing that the former aims at transformative outcomes through social and political analysis, and the later focuses on technical and descriptive thoughts that are often non-transformative.

Like the aforementioned categories developed through a systematic review of the literature, phenomenographic analysis of instructors' interviews also resulted in qualitatively distinct conceptions of reflective learning. Instructors' understandings of reflective learning were found in most cases to be similar to those found in the literature. For instance, in the first category, instructors viewed reflective learning as critical engagement with content, which is similar to the notion of reflective learning as understanding material or experience (Ch. 2). These conceptualizations are similar in their descriptions of the object, process, and purpose of reflection. That is, course content is the main object of reflection in both categories. This conceptualization is related to what Moon (2001) described as "processing cognitive material" (p. 15). In terms of the process of reflection, depth and criticality characterize these content-

oriented views of reflective learning. Relatedly, the primary purpose of reflective learning in this conceptualization is to improve students' conceptual understanding.

Instructors' view of reflective learning as a form of identity development is also related to the metacognitive and self-reflection category of conceptualization in the systematic review. Although both categories focus on the self, reflection as identity development is a more holistic view of reflection than those focusing on examining different aspects of the self for purposes such as metacognition and self-regulation. Such holistic approaches to self-reflection enable students to better navigate and understand the complexities of personal and professional life (Klein, 2008). The finding is also consistent with the literature in that the self is often stipulated as the main object of reflection as well as a key distinguishing feature in its conceptualization (Atkins & Murphy, 1993; Boyd & Fales, 1983; Colomer et al., 2018).

Views of reflective learning as developing critical consciousness are consistent with critical and transformative perspectives of adult and higher education (Brookfield, 1995; Cranton, 2006; Mezirow, 1990; 2003). Notwithstanding the ranges of such perspectives, instructors' conception builds on the literature that discusses reflective learning in relation to wider sociopolitical contexts. Within these perspectives, reflective learning can be used to refer to an examination of how one's thoughts and practices are influenced by the dominant discourses of society (Ryan & Walsh, 2018). However, the goal of developing critical consciousness through reflection goes beyond self-awareness to include systemic awareness. This is in keeping with Freire's idea of conscientization that entails "[a] process of developing a critical awareness of one's social reality through reflection and action" (Freire Institute, 2022). Hence, views of reflective learning as developing critical consciousness extend to systemic issues such as ideology critique, unveiling oppression, unmasking power structures, and awareness of hegemony and privileges.

In general, although with different levels of emphasis, the findings reported in the studies indicated conceptualizations of reflective learning that extend from engaging with content to engaging with sociopolitical contexts for purposes ranging from conceptual understanding to critical consciousness. Indeed, whereas the categories that emerged from the systematic review tend to focus more on *processes* of reflection, instructors' conceptions are more inclusive of the *purposes* of reflective learning. This may be due to

the nature of the interview questions and process used in the study, which go beyond mere definitions of reflective learning to prompt and probe into instructors' understandings from different perspectives. Purposes and processes of reflective learning are often intertwined and, as Procee (2006) noted, examining the different aspects provides better insights into its essence. However, it is noteworthy that there is not usually a one-to-one correspondence between purposes and learning activities. That is, a particular purpose could be achieved through engagement in different learning activities, and a particular learning activity may be considered useful for achieving a variety of purposes. In this regard, conceptualizations of reflective learning as reviewing and evaluating practice or as comparing alternative perspectives (Ch. 2) indicate more of the processes involved in reflective learning. On the other hand, understandings of reflective learning as identity development or developing critical consciousness (Ch. 3) emphasize the purposes to be achieved by engaging in reflective learning. I contend that viewing reflective learning in terms of different aspects would provide not only better insights into what it entails but also allow for greater potential of its application.

Despite the relevance and utility of perspectives with varied purposes and foci, I argue that those focusing merely on conceptual understanding or professional practice would not be sufficient for developing the kind of reflective capacity that is needed to learn, work, and live in the contemporary world. Such experiences can create opportunities for learners to develop the reflective capacity needed to improve their learning outcomes and practice, but could also mistakenly convey the message that reflective learning entails a mere recollection and review of learning strategies and practice-related experiences. It is important to note that reflective learning should be fostered in higher education not only to help students develop professional knowledge and skills and thereby enculture them to the norms and practices of their respective professions, but also to develop the habit of mind they need to cope with the uncertainties of both professional and life contexts. In their recent article, Philip and Sengupta (2021) called for perspectives of and studies on learning that would help us address "the extreme global environmental threats, ballooning levels of inequality, increased societal polarization, and rising authoritarianism that we are currently experiencing" (p. 334). Cultivating and developing transformative approaches to reflection during higher education studies could set a foundation for students to use it in their own lives. To do so, educators' perspectives of reflective learning should extend

beyond reviewing and describing experiences or a mere enunciation of thoughts related to events, and rather focus on unearthing subtle and systemic assumptions and structures that impact our lives and aim at developing informed citizenry. When reflection focuses on such systemic and larger issues, it can help to foster what Sannino et al. (2016) called transformative agency. Transformative agency entails "breaking away from the given frames of action and taking the initiative to transform it" (Sannino et al., 2016, p. 603). It requires going beyond the confines of the classroom and engaging in activities that matter to the society at large.

Although such goals could be achieved in different ways, one important avenue is through faculty development programs in higher education institutions. Historically, faculty development programs have mainly focused on techniques of teaching (Entwistle et al., 2001). Despite the utility of such approaches for immediate application, Entwistle et al. (2001) noted that the effects on improving instructional practice have been less successful. An alternative approach in faculty development is thus to focus on the conceptual perspectives that guide instructional approaches.

Hence, given the range of conceptions of reflective learning observed in my study, I suggest that faculty development programs need to aim at both uncovering instructors' conceptions of reflective learning and providing them with alternative conceptual frames that expand their horizons. Such faculty development activities need not necessarily aim to replace existing conceptions with new ones. Instead, exposure to diverse perspectives has the potential to invoke instructors to stop and think how these might translate into their own courses. Instructors who are trapped in unexamined and limited perspectives may not adequately integrate reflective learning experiences into their courses. In cases where they try to incorporate reflective learning, there is a tendency to focus on limited ranges of conceptualizations of it (Connell, 2014) and mainly for assessment purposes (Roberts, 2016). Professional development activities can thus be avenues for providing instructors with a wide range of conceptualizations for a wide range of purposes. From this perspective, the findings of this study can be useful since they map out the categories of conceptions of reflective learning to be discussed in those faculty development programs.

5.2.2. Student engagement in reflective learning

One of the important findings of my study on student engagement (Ch. 4) regards the dimensions of students' perceived engagement in reflective learning and their relations to instructors' conceptions of it. Previous studies on student reflection, mainly based on analysis of learning artifacts, reported varied results regarding the nature and level of reflection. The findings of my study indicated that students reported engaging in transformative, personal, metacognitive, and relational reflection. These findings are corroborated by the literature, although inclusion and emphasis of the dimensions may differ across existing models and frameworks of reflective learning. For example, the features of relational and transformative reflection can be somehow related to what Jay and Johnson (2002) described as comparative and critical reflection respectively in their three-dimension typology of reflection. On the other hand, the transformative dimension of students' reflective engagement is consistent with what several frameworks described as the highest level using different terminologies such as premise reflection (Mezirow, 1990;2003) and critical reflection (Brookfield, 2009; 2017; Hatton & Smith, 1995; Kember et al., 2000; 2008). On the other hand, personal and metacognitive dimensions did not often stand out in existing models and frameworks as distinct dimensions, even though the features are described in one form or another.

My study on student engagement contributes to the existing literature by identifying these four components of reflective engagement in the context of education courses. That is, I statistically confirmed the dimensions of reflective engagement, although one or more dimensions were described here and there in the literature. Besides, my findings are based on students' self-reports, unlike studies in education that often relied on analysis of written reflections on teaching practice (e.g., Hatton & Smith, 1995). As noted in the earlier sections of this study, it is important that students engage in reflection not only on practical experiences but also classroom learning experiences (Edwards, 2017; Loughran, 1996) and their perception of the relevance of the experience is crucial (Cambra-Fierro & Cambra-Berdún, 2007; Rodgers, 2002). The four components therefore provide insights into the nature of reflective learning experiences that students were engaged in education courses. Furthermore, although developing higher levels of reflection is considered challenging to students in higher education (e.g., Gay & Kirkland, 2003; Risko et al., 2002), the findings of this study indicate moderate

levels of engagement in all four components including transformative reflection, albeit with differences across variables.

Another contribution of this study concerns the relationships between instructors' conceptions and student engagement in reflective learning. Despite the prevalence of studies on the relations between teacher beliefs or conceptions and instructional approaches, studies on reflective learning largely focused on application of self-chosen strategies (Gardner et al., 2006) and assessing reflective outcomes (Gelfuso, 2016). My study therefore adds to the literature by illustrating the relations between the way instructors understood reflective learning and their students' self-reported reflective engagement. For instance, the findings indicated a significantly lower level of engagement in transformative reflection for students whose instructors' view of reflective learning focused on engagement with content. This finding comports with assertions in the literature that instructors' perspectives of how learning occurs fundamentally drive the ways they design courses to support that learning (Danish & Gresalfi, 2018; Entwistle et al., 2001; Ertmer & Newby, 2013), and lead to differences in the design of classroom learning.

The findings pertaining to differences in the nature and level of student engagement across the three educational programs also confirmed my presuppositions about the role of learning design. Previous studies that compared reflective learning experiences across different programs reported contradictory results (Frazier & Eick, 2015; Kember et al., 2000; Naghdipour & Emeagwali, 2013; Sargent, 2015). The results, which were based on different contexts and fields of study, include graduate health science students engaging in higher levels of reflection than their undergraduate counterparts (Kember et al., 2000); senior preservice language teacher education students engaging in higher levels of reflection compared to junior counterparts (Naghdipour & Emeagwali, 2013); lack of significant association between more college experience and engagement in higher levels of reflection (Sargent, 2015); and undergraduates being more reflective than graduates when using video journals (Frazier & Eick, 2015). The findings reported in this study indicated significant differences in students' reflective engagement across programs, favoring preservice teacher education (PTE) students in most of the dimensions of engagement. In addition, graduate students reported engaging in more transformative reflection than undergraduate students. Pertaining to personal reflection, which entails relating professional and life experiences,

however, I surprisingly found out no significant differences between graduate and undergraduate students. On the grounds of such varied results from comparisons of student reflection that are evident from both previous studies and my study, I again argue that the nature and level of students' engagement in reflective learning can be attributed not only to differences in their backgrounds but also to the nature of the reflective tasks they were engaged with. This in turn implies the crucial role of intentional design and facilitation for fostering reflective learning for a variety of purposes.

These findings, which highlight the crucial roles instructors play, have important implications for fostering and facilitating reflective learning in courses. It is important that instructors see the value of reflection and make it an integral part of their courses. This will help not only to engage students in reflective learning activities but also to help them see the value of doing so (Huang, 2021; Loughran, 1996). Although integrating reflection into the curriculum is an important step towards its enactment, it is not sufficient to effectively engage students. The way students understand the meaning and purpose of reflection is crucial for their engagement. This is because the notion of reflection is a less familiar and underutilized term for many students and thus they may not appreciate its value (Morrison, 1996). The significant differences in students' perceived engagement, favoring PTE students, can be partly attributed to the explicit instruction about reflection in the program. Loughran (1996) made an important distinction between educating about reflection and training in reflection as key to valuing reflection. The former, which entails not only learning to reflect but also why one needs to reflect, is essential to the value that students ascribe to reflection. Hence, instructors who seek to foster reflective learning also need to communicate the underlying values and purposes of reflection to their students.

5.3. Further Research

Three possible areas of further study could be suggested. The findings reported in this study indicated relations between instructors' conceptions and the nature of students' engagement in reflective learning. The ranges of instructors' conceptions imply the use of different instructional strategies and tools to foster reflective learning. However, better insight and guidance for an optimal approach to designing and fostering reflective learning can be obtained through a more detailed analysis of the ways tools and methods are used in actual instructional processes. To achieve this purpose, two

study approaches might be employed. One is an ethnographic approach to examining actual curriculum enactment in selected courses. In this case, a study of courses in which reflective learning is an integral component would help to establish the nature and structure of reflective learning activities that foster reflective learning. A design-based research approach is another possibility. Although findings of students' perceived engagement provided insights into the nature of their reflective learning experiences, the quality of their reflections was not examined. There are differing reports in the literature regarding the level of guidance and structure needed to foster reflective learning in higher education (e.g., Brookfield, 2017; Callens & Ellen, 2011; 2015; Jay & Johnson, 2002; Risko et al., 2002). For instance, whereas Callens and Ellen (2015) reported the importance of linear and structured tasks for fostering critical reflection, others (e.g., Brookfield, 2017; Rose, 2013) found these kinds of learning activities reductionistic and troublesome. Hence, a potential area of further study is a fine-grained analysis of the effect of selected designs of reflective learning activities on students' reflective engagement. Here the focus could be on altering the level of structure of reflection prompts and analyzing the effect that the variations could have on the nature and level of student reflection.

Another possible area of further study could be validating and adapting the instrument we developed to examine students' perceived engagement in reflective learning. Such a process of validation could be undertaken by designing a confirmatory study on the current instrument using larger samples and a variety of participant groups. On the other hand, qualitative case studies could be undertaken to adapt and use the four components of reflective learning engagement for assessing students' oral and written reflections. This work requires translating closed form survey items into qualitative indicators. In addition, such qualitative studies could aim to explore the effect of variables such as student background on students' reflective work. Our quantitative analysis indicated the effect of program levels and instructors' conceptions on students' reflective engagement. We need to know more about the ways in which such background and experience factors as well as the learning environment impact the quality of student reflection, and how such factors might interact and foster the development of reflective capacity.

Lastly, the affective dimension of reflective learning is understudied (Bruno & Dell'Aversana, 2017; Moon 2001). Although I didn't specifically aim to examine this

dimension in my study, the findings of self-reflection as one category of conceptualization (Ch. 2) and personal reflection as a dimension of students' reflective engagement (Ch. 4) imply that students reflect on personal life experiences that could have emotional implications. That is, when engaging with one's inner beliefs and experiences, it is possible that students make connections with experiences that are emotional in nature, and which may trigger traumatic events. Hence, further study could examine ways of enacting trauma-informed strategies for fostering reflective learning.

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Appendix A.

Reflective Learning Engagement Questionnaire

Dear students:

The purpose of this questionnaire is to explore the nature of learning experiences you were engaged in X course. The responses you give have nothing to do with your grades or course evaluation; it is only for research purposes [Note: your course instructor will not have any access to this data].

Thank you in advance!

A. Background Information
   Program Level: Undergraduate____PDP____ Masters ____ PHD/EdD ___ other_____
   Course: _____
   What year are you in the program? _____
   Previous professional experience, if any: a) area of practice _____
                                             b) years of practice_____

B. Try to remember what you have been doing in this specific course and rate the extent to which the descriptions of each item apply to you (1 representing 'totally disagree'; 2 representing 'disagree'; 3 representing 'undecided'; 4 representing 'agree'; and 5 representing 'totally agree').

   For each of the items in the table, the leading question is: **To what extent did you agree that the learning experiences in the course (eg. assignments, online or face-to-face discussions, journal or portfolio writing, etc.) engaged and/or helped you to:**

No	Item	Responses				
1	Think about the meaning of issues/topics you were learning in relation to your personal experiences	1	2	3	4	5
2	Appraise your experience so you can learn from it and improve your future performance	1	2	3	4	5
3	Become aware of and reflect on the uncertainties and conflicts in scientific explanations about issues dealt in the course	1	2	3	4	5
4	Evaluate and take personal positions on controversies related to course contents	1	2	3	4	5
5	Question commonly held beliefs and assumptions about educational issues (e.g., the nature of assessments, student-teacher relationships, etc.)	1	2	3	4	5
6	Recognize and challenge your firmly held beliefs about educational matters such as teaching, learning, technology, research, etc.	1	2	3	4	5
7	Discover and change personal beliefs, which you had previously believed to be right	1	2	3	4	5
8	Analyze how your emotions and values could impact professional decisions and actions	1	2	3	4	5
9	Recognize and evaluate what you learn and how you learn	1	2	3	4	5
10	Understand what you need to do to achieve your educational goals, for example your learning approaches	1	2	3	4	5
11	Draw personal relevance and meaning from learning/course experiences	1	2	3	4	5
12	Analyze the intentionality and depth of your reactions to course activities	1	2	3	4	5
13	Discover professional development needs you were not previously aware of	1	2	3	4	5
14	Explore the role of your personal background and life history in the forming of educational beliefs and practices	1	2	3	4	5
15	Test your own judgments against those of others	1	2	3	4	5
16	Weigh competing claims and viewpoints and justify educational decisions and practices	1	2	3	4	5
17	Recognize and reflect on differing perspectives of peers on a particular issue dealt in the course	1	2	3	4	5
18	Assess the validity of reasons and perspectives presented by peers	1	2	3	4	5
19	Suspend your own emotions and take the perspective of others to realize how other people may feel	1	2	3	4	5
20	See things anew or differently based on alternative perspectives from others	1	2	3	4	5
21	Critically question learning experiences in terms of moral, socio-cultural and political dimensions	1	2	3	4	5
22	Examine and understand the factors (e.g., prior experiences, people, courses, readings, etc.) that have an impact on your professional identity	1	2	3	4	5
23	Challenge conventional norms and practices in the field of education	1	2	3	4	5
24	Develop personal theories of education	1	2	3	4	5
25	Reframe or reconstruct future professional practice	1	2	3	4	5
26	Change many of your firmly held beliefs	1	2	3	4	5

C. Open-ended Questions
1. How do you define reflective learning?

2. What kinds of instructional strategies employed in the course promoted your engagement in reflective learning? Why?

3. What were the barriers or challenges to engage in reflective learning in this course?

4. What suggestions do you have for fostering student reflection in education courses?

Appendix B.

Interview Guide for Instructors

Background Information:

Academic Rank_____

Program/field of study_____

Experience in Teaching in Higher Education_____

Course currently teaching_____

Introduction: Introducing the researcher, purpose of the research, approximate duration of the interview, etc

Questions:

1. Could you please tell me about the purpose of the course and the expected learning outcome for the students?

2. What kinds of learning activities and assignments do you give in this course? What were the purposes of those activities?

3. How do you explain or describe reflective learning in this course?

4. What strategies did you use to promote reflective learning in your students in this course?

5. How is being reflective important in higher education?

6. What kinds of activities or responses make you think that students have engaged in reflective learning?

7. How do you see the level of reflective skills of your students? A) How do students differ in reflective activities? B) Why are some students more reflective than others?

8. In your view, what kinds of skills do professors need to foster reflective learning among their students?

9. How often do you reflect about your teaching and what specific things do you do when you reflect?

10. What things did you find easy or difficult in helping students develop reflective learning? What about yourself?

11. What do you think are enabling/ hindering factors for students to engage in reflective learning?

Appendix C.

Assumptions and Outputs of Statistical tests

Additional information on quantitative data analysis (Chapter 4) is presented below including scree plot, eigen value and explanations on test assumptions and decisions.

a) Scree plot

Scree Plot
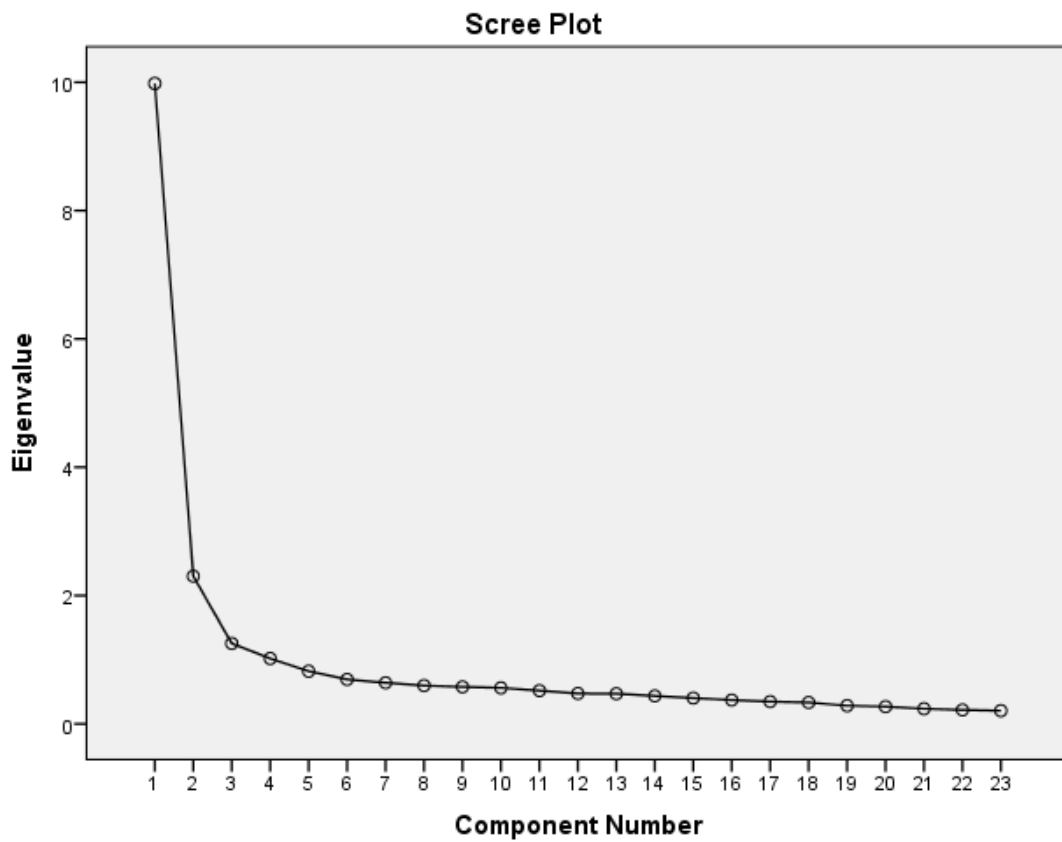
b) PCA: Components, Eigen Values, and Variance Explained

Total Variance Explained

Component	Initial Eigen values			Extraction Sum of Square Loadings		
	Total	% of variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.981	43.397	43.397	9.981	43.397	43.397
2	2.301	10.005	53.403	2.301	10.005	53.403
3	1.253	5.449	58.852	1.253	5.449	58.852
4	1.019	4.430	63.282	1.019	4.430	63.282
5	.820	3.565	66.847			
6	.692	3.010	69.858			

c) Assumptions for using Principal Component Analysis and MANOVA

I employed two main statistical tests, i.e., principal component analysis (PCA) and multivariate analysis of variance (MANOVA) pertinent to the research questions I formulated. In this section, I provide brief explanations about the assumptions and decisions of the tests used.

PCA was used to determine dimensions of students' perceived engagement in reflective learning. Principal component analysis and factor analysis are the two statistical procedures that can be used to identify a small number of dimensions or components underlying a large set of variables. Because of important statistical differences, one or the other can be employed pertaining to the problem being researched. I used PCA because it is conceptually simpler (Meyers et al., 2017) and a preferred method when the primary interest is in reducing a set of variables to few components (Tabachnick & Fidell, 2013). It should be noted however that both PCA and factor analysis were run on the same data, and they yielded a similar structure.

An important phase in principal component analysis is rotation of factors or components helps to achieve a simple and interpretable structure without changing their underlying mathematical properties (Meyers et al., 2017; Tabachnick & Fidell, 2013). There are two main factor rotation techniques: orthogonal and oblique rotation. Meyers et al. (2017) suggested starting with oblique rotation when there is no solid expectation or theory regarding the correlation of factors and choosing the same strategy "if some of the factors correlate in the range of the high .3s or higher" (p. 432). Accordingly, I opted for oblique rotation (Promax) because the factor correlations were found to be in the suggested range. Furthermore, when oblique rotation is used, it yields two types of

coefficients (loadings): pattern and structure coefficients. Scholars offer different explanations regarding which coefficient should be used when interpreting and reporting results. I examined both coefficients and they yield similar solution (component) structures. However, I reported structure coefficients because it is more intuitive in that it presents variable-factor correlations (Meyers et al., 2017).

The other statistical test used in the study was MANOVA. It was used to examine differences in students' perceived engagement in reflective learning due to differences in the programs they were attending and their instructors' conceptions of reflective learning. It is an appropriate method when two or more dependent variables are analyzed simultaneously (Meyers et al., 2017). To ensure the validity of results, assumptions of multivariate analysis were checked, and appropriate measures were taken. For example, moderate correlations between dependent variables is an ideal situation for using MANOVA (Meyers et al., 2017). Accordingly, the correlations between the four dependent variables (components) of this study ranging from .33 to .64. illustrate the appropriateness of using MANOVA. Bartlett's Test of Sphericity is also significant and indicate that the dependent variables are sufficiently correlated. However, Box's test was significant indicating violations of assumptions of homogeneity of variance. Thus, I used Pillai's trace which is a robust multivariate test of statistical significance in cases of violations of assumption of homogeneity of variance (Meyers et al., 2017). Besides, I performed Tamhane's T2 test which is a recommended post hoc comparison test when assumptions of homogeneity of variance is violated (Meyers et al., 2017).

Appendix D.

Strategies for Ensuring Trustworthiness of Qualitative Analysis

I used different strategies to ensure the trustworthiness of the qualitative analysis by adhering to the principles of qualitative research in general and phenomenographic study in particular. It is argued that the quality of a study in each research approach should be judged by its own criteria (Patton, 2002), and thus the strategies used to address quality in qualitative research are not the same as in quantitative research. Accordingly, strategies pertinent to qualitative research and phenomenographic study such as interpretive awareness, dialogical reliability, and searching for alternative and rival explanations were used to ensure the trustworthiness of the findings (Ashworth & Lucas, 1998; Hajar, 2020).

Phenomenographic analysis aims to examine the lifeworld of the participant and understand their conceptions of the phenomena. This requires suspending presuppositions and a priori categories during analysis (Ashworth & Lucas, 1998). Accordingly, despite the prevalence of various frameworks and models of conceptions of reflective learning in the literature, the process of data analysis was conducted with an open mind and without imposing any existing structure or framework. Such a process of setting aside prior assumptions and a priori categories is named as bracketing by phenomenographers and is considered an important strategy for ensuring that the analysis and interpretation of data is not infiltrated by preexisting frameworks (Ashworth & Lucas, 1998; Hajar, 2020).

A thorough and prolonged engagement with the data was also another important strategy used to enhance the quality of the findings. That is, I spent a considerable amount of time and worked back and forth between the data within and across the transcripts to search for alternative and rival descriptions of the phenomenon. This helped to gain a better understanding of participants' conceptions and develop credible categories.

Discussions or dialogical reliability (Hajar, 2020) was also used to ensure the dependability and trustworthiness of the results. That is, I was engaged in several

discussions with my supervisor while coding the data and developing the categories. These continued discussions resulted in common understandings about the approaches to coding as well as agreements in the categories developed. Furthermore, the categories developed were checked for internal homogeneity and external heterogeneity (Patton, 2002). Whereas the former concerns with the consistency of data within each category, the latter focuses on the boldness and clarity of differences among the categories. In this case, the descriptions of the categories along with the data (excerpts) grouped into and presented in the categories illustrate that four categories represent qualitatively distinct conceptions of reflective learning.