Navigating postsecondary learning during dual enrolment: the transition experience of a group of students in Minnesota, U.S.

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ABSTRACT

Despite the increase in dual enrolment (DE) programs in Minnesota and throughout the United States, there has been little research on the transition experiences of DE students to understand the challenges encountered and the approaches they use to manage their postsecondary learning. The purpose of this study is to investigate how a group of students navigated postsecondary learning while participating in a dual enrolment (DE) program. A single case study approach was adopted to explore the experience of 16 current DE students at a private university in Minnesota. Semi-structured interviews were used with students and instructors, along with a student focus group, to help understand and enter into the participants' lived experiences. Transition and self-regulated learning theories were utilised to assist in interpreting the findings.

The findings revealed that both social and academic factors were significant in the transition experience of the DE students. Participants experienced challenges adapting to the new university environment and could hold exaggerated views of how difficult DE courses would be. Student desire to be accepted and to establish social connections at the university was strong but at the same time feelings of loneliness and disconnection were common.
With this in mind, participants made intentional effort to start well and to create systems to monitor their progress. If they hit an obstacle while working through a course, they would attempt to maintain progress although this was difficult at times. Over time, student self-confidence increased as they became familiar with the environment and developed the necessary skills to successfully navigate DE courses. Adapting previous strategies for DE was found to be particularly helpful.

The study concludes that to avoid DE students trying to succeed as lone, independent learners, institutions should facilitate social connections, such as through robust onboarding and orientation activities, and provide ongoing opportunities to integrate these students into the community. In addition, instructors play a critical role in supporting student progression and helping students feel a sense of belonging. If students are able to feel confident and take greater ownership for their learning, as expected in postsecondary contexts, they will likely be more successful. This can be accommodated in part

by educating students on the effective use of self-regulated learning principles. A critical application of the selected theoretical lenses on the study's findings resulted in the introduction of a new conceptual model, *Learning in the Dual Enrolment Landscape*, to portray the transition experience of DE students.

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Finally, to my Lord and Saviour, Jesus Christ – thank you for giving me the wisdom and strength needed to bring this to completion (Philippians 4:13).

AUTHOR'S DECLARATION

I declare that, except where explicit reference is made to the contribution of others, this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

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ABBREVIATIONS

ACT	American College Testing
CAQDAS	Computer-Assisted Qualitative Data-Analysis Software
CCHSWG	College Credit in High School Working Group
CCRC	Community College Research Center
CHSA	College in High School Alliance
CoP	Communities of Practice
DE	Dual Enrolment
ECS	Education Commission of the States
HLC	Higher Learning Commission
LoP	Landscapes of Practice
MDE	Minnesota Department of Education
MOHE	Minnesota Office of Higher Education
MVPS	Mounds View Public Schools
NACEP	National Alliance of Concurrent Enrollment Partnerships
NCES	National Center for Education Statistics
PSEO	Postsecondary Enrollment Options
PSLE	Postsecondary Learning Environment
SLE	Secondary Learning Environment
SRL	Self-Regulated Learning
TCF	The Century Foundation
UNWSP	University of Northwestern – St. Paul
USDE	U.S. Department of Education

CHAPTER 1 – INTRODUCTION

1.1 – Overview

The purpose of this study is to investigate how a group of students navigated postsecondary learning while participating in a dual enrolment (DE) program. There are two particular areas of focus in this study. The first is to understand what principal challenges were experienced by DE students while transitioning from high school to university. The second is to examine how the students managed their university learning while in a DE program and consider if self-regulated learning (SRL) provides a helpful framework for explaining their approach.

The motivation for this study comes from various sources. Since 2003, I have worked at colleges and universities that have provided educational offerings to DE students. During this time, the number of students participating in DE programs has grown significantly at my own institution, at neighbouring schools (MDE, 2019), regionally, and beyond (NACEP, 2019b). My own university has seen its DE population grow from approximately one quarter of enrolments in 2010 (UNWSP, 2012) to over half of all enrolments in a few short years (UNWSP, 2017). This trend emphasises the importance of examining the experiences of DE students to ensure they can be effectively supported in their courses and in a postsecondary environment. Several areas of inquiry can inform a better understanding of these students such as what contributes to successful transitions from one learning context to another (Scott et al., 2014), especially the boundary crossing experience (Wenger, 1998) into higher education given concerns about an increasing number of students being unprepared to enter postsecondary environments (Weinstein et al., 2011); how DE students navigate the unique transition experience of entering the “middle space” (Hofmann, 2012) between secondary and postsecondary contexts; how students approach and manage their university learning while in DE and to explore if they operate as independent learners as researchers suggest (Christie et al., 2008; Wingate, 2007).

1.2 – Background and Significance of the Study

The state of Minnesota, where this study takes places, defines DE as, "a program that allows 10th-, 11th- and 12th-grade students to earn college credit while still in high school, through enrollment in and successful completion of college-level courses" (MDE, 2018). DE programs are known by other names such as concurrent enrolment, Postsecondary Enrollment Options (PSEO), and early college but they all share the fundamental characteristics of high school students completing college-level courses. DE is the common name that often represents programming at colleges and universities and will be used for the purposes of this study. This program has experienced significant growth in recent years. Approximately 1.4 million high school students in the United States earned college credit through participation in DE programs in 2011 (USDE, 2015). Gross (2016) examined growth in the U.S. and noted that "participation is growing by seven percent a year — in many states at considerably higher rates" (para. 5). In 2016, 80% of students in one local school district earned college credits while attending high school (MVPS, 2016, p.6). In 2018, that number jumped to 90% of students. Just as noteworthy, in that same year, 71% of high schoolers earned one semester or more of college credit (totalling 12 or more credits) before graduating high school (MVPS, 2019, p.8).

As this population of students has grown rapidly in recent years, there is a need to better understand factors of the DE student experience, particularly challenges they face, in order to more effectively support these students going forward. The increasing number of DE students demonstrates that a new type of student experience is emerging as students move through the educational pipeline. Traditionally, high school students would complete their course requirements at a single secondary institution, graduate, and then begin their postsecondary experience. This type of lateral transition (Beach, 1999) had a distinct line of movement for learners going from one context to another, in a single direction. It allowed students to focus on the practices and knowledge that proved helpful in their high school setting before moving to a separate postsecondary learning environment. After moving on to a college or university, they could focus on identifying, developing, and using practices and strategies that were most helpful for that particular context. Today, high school students increasingly need to be able to adapt to the multitude of demands,

expectations, and complexities of being active in two learning environments while being enrolled in two, or sometimes more, institutions through DE programming.

This leads to a key point, that DE students are a special and relatively new type of student group who are in a more dynamic learning environment. They have diverse participation and experience levels with university courses that can challenge established support models and instructional practices. Traditional assumptions about student ability, knowledge, and commitment to the university cannot be taken for granted. Institutions and instructors must be prepared to contend with DE students who are unique from students of the past. Their engagement could be described as a “collateral transition” (Beach, 1999) since they are simultaneously participating in, and moving between, high school and postsecondary settings (further described in Section 3.3). A student may take a single DE course to complement their secondary studies or they may take their full course load through DE. Students may also concurrently participate in multiple DE programs offered through different universities. A variety of modalities are used to deliver DE courses including online, in person at the high school, and in person at a college or university. In addition, it is worth noting that “each participating college and university [sets] their own requirements for enrolment into the PSEO courses and programs” (MDE, 2018). For example, that prospective students must have a minimum high-school grade point average to be eligible for admittance into a DE program. These factors seem to support the argument that modern learners need to be more "independent" (Christie et al., 2008; Wingate, 2007) and "fluid" (Quinn, 2010) in order to seamlessly navigate various contexts, such as the experience of DE. Interestingly, there is currently a lack of empirical research focused specifically on how students navigate their university learning while engaged in a DE program.

With these factors as a backdrop, this study was originally intended to focus on engaging with DE students to explore how they managed their university learning. Particular attention was on exploring if SRL, which “is an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognitive, motivation, and behaviour, guided and constrained by their goals and the contextual features in

the environment" (Pintrich's (2000b, p. 453), is effective in explaining their practices with an assumption that they were working in a mostly independent manner. However, through the interview process, analysis of participant data, and a critical review of relevant literature, it became clear that two extensions of the original focus would provide key insights into this groups' engagement with DE. First, the broader transitional experiences of participation in DE should also be considered within the context of the study. For example, students were attempting to navigate more than one educational environment, were trying to develop context-specific practices to complete their coursework, and were struggling to establish a sense of identity and belonging (Honkimäki & Kálmán, 2012). This required going beyond what SRL could sufficiently address on its own. Second, in addition to the responses provided by students, it was determined that capturing the perspectives of DE instructors would generate a fruitful and complimentary perspective on how students manage their learning and the experience transitioning to a postsecondary context while in DE. By reflexively responding to these discoveries (Jacobson & Mustafa, 2019), I determined the conclusions and contributions of the study would potentially be more robust and well informed if these related points of reference were considered together. Therefore, the scope of the study was expanded to also include an investigation into the transitional experiences of students, including the influences of context and environment(s) around the learner (Bandura, 1986; Vygotsky, 1978), as well as the perspectives of DE instructors on student learning and transitions within this context.

Having introduced the background and significance of the study, the theoretical framework used in this study will be briefly outlined.

1.3 – Theoretical Framework

Several theoretical perspectives presented themselves as potentially useful for exploring and understanding factors that impact the learning and transition experiences of DE students. As highlighted in the previous section, there are advocates who suggest that students are moving toward more independent learning styles. Therefore, it is helpful to consider what specific practices students are using to manage their learning and consider if they are in fact functioning as independent learners. SRL frameworks (Panadero, 2017; Pintrich,

2004; Zimmerman, 2013) have the potential to effectively explain the approach of DE students by providing common principles of planning, monitoring, and reflecting on their learning (Zimmerman, 2013). Such frameworks are undergirded by a social cognitive theoretical position (Bandura, 1986) which emphasises the relationships between behaviour, personal cognition, and the environment. These perspectives acknowledge that students have agency and responsibility in their learning while also recognising that their behaviour is influenced by their environment.

In addition, with appreciation to the challenges DE students experience while navigating multiple learning contexts, theoretical insights from research on learner transitions can prove useful. This can help account for academic and social elements of student transitions in order to identify relevant factors encountered in their courses and beyond (Vygotsky, 1978). Among various transitional perspectives, the theoretical framework of landscapes of practice developed by Wenger-Trayner et al. (2015), combined with the framework of consequential transitions provided by Beach (1999) can provide a helpful theoretical lens to examine the complexity of DE transitions. These frameworks will be used in addressing the study's research questions which will be outlined next.

1.4 – Research Questions

This study aims to better understand the high school to university transition experiences of a group of DE students and to discern what academic and social factors impact those experiences. In addition, the study seeks to understand how these students manage their learning while participating in a DE program. In the process of reviewing the literature relevant to the topic of interest, the following research questions were derived for the study:

1. What are the principal challenges encountered by one group of dual enrolment students in Minnesota, U.S. during the secondary school to university transition experience?
2. How can self-regulated learning help enhance our understanding about the way a group of dual enrolment students managed their university learning?

Having established the theoretical framework and research questions of the study, the next section will address the methodological approach employed.

1.5 – Methodology

Mason (2002) emphasises the importance for researchers to be aware of the "essence" of their enquiry. This essence plays a significant role in guiding the derivation of the research questions, identifying the paradigm within which the study is situated, and informing the corresponding ontological and epistemological positions. Identifying the research paradigm is of primary importance as it provides the foundation for the study in a way that will influence the methodology and methods used.

The research approach used for this empirical study follows an interpretivist paradigm using a single case study approach and qualitative methods. Qualitative methods were adopted in order to capture the "experiences and perceptions of individuals…rather than rely on numbers or statistics" (Thanh & Thanh, 2015, p. 26). The qualitative methods used were designed to capture the realities of DE students in an authentic way. The bounded context (Merriam, 1998) for this case were active DE students from a single postsecondary university in Minnesota. Semi-structured interviews were carried out with 16 DE students. Following those interviews, a focus group session took place with four of these students to assess if additional issues or topics were raised or expanded by the students in a group setting (Krueger, 1995). The interview questions were primarily designed around the four phases of SRL (Pintrich, 2004) and perceived levels of self-efficacy (Bandura, 1986) related to each SRL phase. In addition, semi-structured interviews were conducted with three active DE instructors to capture their perspective on how DE students manage their learning and factors that are impactful to the transition experience. Responses to the interview questions provided the primary data for an inductive approach to analysis (Brinkmann, 2013).

1.6 – Positionality

Position of the Study

This study is located at the intersection of two larger bodies of research. The first being self-regulation (Boekaerts et al., 2000; Zeidner et al., 2000), with a particular focus on learning (Pintrich, 2004; Puustinen & Pulkkinen, 2001; Zimmerman, 2000), and the second being around transition experiences (Bailey et al., 2002; Beach, 1999; Fenton-O'Creevy et al., 2015b; Karp, 2012), with particular focus on the context of educational settings (Dembo & Seli, 2013; Wenger-Trayner & Wenger-Trayner, 2015). Additionally, since this study is focused on DE students and learning in that environment, the connection with secondary and postsecondary contexts must be acknowledged to ground the study's relevance and scope (Bailey et al., 2002; Gale & Parker, 2014).

Position of the Researcher

As a researcher, I bring my own values, biases, and assumptions into the analysis of data and engagement with the research process (Partington, 2001). This has been noted as an area for critical reflection as I engaged in the process of generating meaning from the research participant data (Goldkuhl, 2012). As I am not and never have been a DE student, I consider myself an outsider (Merton, 1972) of this group. However, as a professional currently working at a university that has a significant population of DE students, and as one who has taught courses to these students, I also carry some insider perspectives (Merton, 1972). Each of these positions provide advantages and disadvantages related to access, interpretations, and knowledge creation (Darwin Holmes, 2020). For this study, I consider the role of the "researcher 'in the middle'" (Breen, 2007) to more accurately describe my positionality.

The next section provides an outline for the dissertation by briefly describing the structure and contents of each chapter.

1.7 – Organisation of the Dissertation

This dissertation is organised into the following chapters. Chapter 2 includes an examination of literature related to DE including a brief look at the history of DE followed by an exploration of the current landscape of adoption, policy, and practice. Chapter 3 provides a critical examination of the nature of learner

transitions as it relates to the context of DE. Key issues of identity, knowledge, and trajectories will be analysed along with theoretical conceptualisations of transfer and transitions. The chapter will also examine SRL, particularly from a social cognitive perspective, and related elements of self-efficacy that factor into navigating the DE context. The sections of this chapter will provide a critical review of existing research to situate the study, provide rationale for the theoretical lenses used in this study, and to formulate the research questions. Chapter 4 focuses on methodology and the approach used for this study. This chapter will explain how an interpretivist paradigm, using a single case study approach and qualitative methods, was used for this study along with the rationale for that approach. In addition to exploring the major underpinnings of this paradigm, details on the research design, questions, participants, data collection techniques, and data analysis approach will be explored. Chapters 5 and 6 present the findings from data collected from the participant interviews to identify emergent themes that help address the research questions. Chapter 5 presents findings which analyse the social and academic transitional experiences of DE students and how they simultaneously navigated different contexts. Chapter 6 examines findings related to student practices for managing their university learning while participating in DE courses along with participant levels of self-efficacy related to various phases of SRL. After key findings have been presented, Chapter 7 adopts a critical application of the selected theoretical lenses on those findings to address the study's research questions. Chapter 8 concludes the paper by connecting the main themes through a critical reflection on the study, recognising limitations, and providing recommendations for professional practice and future research.

CHAPTER 2 – THE DUAL ENROLMENT LANDSCAPE

2.1 – Introduction

This chapter will provide a critical review of existing literature focused on dual enrolment (DE) to underscore how this program has grown and impacted higher education. The chapter begins with an examination of the current state of DE activity and participation in the United States (U.S.). This section will consider the history, adoption, and participation of DE at various levels. Factors which encourage and challenge participation by students and institutions will be examined. Since this study is based in Minnesota, particular attention will be given to policies and activity specific to that state while referencing and acknowledging relevant studies and data from national sources.

2.2 – Dual Enrolment

Understanding the nature of DE, and the types of students impacted by this programming, is important to help contextualise this study. As noted in Section 1.2, there are several forms of dual credit programming offered in Minnesota including concurrent enrolment, articulated credit, and Postsecondary Enrollment Options, also known as PSEO, (MOHE, 2017). These forms are representative of the types of programming available in other states (CCRC, 2012; Kilgore & Taylor, 2016; NACEP, 2021). Dual credit, or DE programs, allow eligible high school students to take postsecondary courses from one or more institutions and simultaneously receive both high school and college credit (HLC, 2013). In Minnesota, a student is required to live in the state and have either junior or senior standing in high school. This means the typical age of a DE student is between 16 and 18 years old. In order to participate, students must comply with established DE admissions standards which are determined by each postsecondary institution. Students can remain active in DE through the completion of grade 12, their final year in secondary school. They are allowed to complete up to two years' worth of college courses through DE and can earn up to a full associate degree (Kilgore & Taylor, 2016) while also earning their high school diploma.

DE courses are offered in a variety of delivery formats (Fink et al., 2017) including online, on-campus at the resident university, at the student's

secondary school, and a combination of those through blended learning. In particular, online options have greatly expanded at universities as online education has become “part of the fabric of college and university life in the United States” (Stocker, 2018, p.114). Additionally, a single DE course may include student enrolments from various secondary schools along with university students from that institution. This incredible variety of offerings did not begin immediately but have evolved over time, along with the higher education industry, to meet the needs of new learners.

2.2.1 – Brief History

In the U.S., social mobility is said to be “written into the DNA of America” (TCF, 2019, p. 29). At the beginning of the twentieth century, completing a secondary education was considered to be sufficient to meet the needs of life. That changed with the growth of the working class and the subsequent requirement for further education (Carnevale et al., 2018; Karp, 2015). In response, two-year junior colleges, later known as community colleges, were established with a focus on vocational curriculum and training (Grubbs, 2020). In addition, since the end of World War II, the higher education sector has been consistently expanding with significant growth in the number of institutions and student enrolments (NCES, 1993). During that time, new opportunities were introduced for academically strong students to take advantage of test-out options, waiving the requirement to sit through a course via Advanced Placement exams (Tinberg & Nadeau, 2011). A decade later, International Baccalaureate diploma programs provided courses across subject areas that would be accepted for postsecondary credit (HLC, 2013). As the postsecondary secondary sector expanded, and community colleges grew in relevance, “separate governance and funding structures for secondary and postsecondary education” (Kisker, 2006, p. 80) were established in most states by the 1970s. Government funding for higher education increased during this time (Grubbs, 2020) and community college emphasised their “open door” ethos (Dougherty et al., 2017). This allowed community colleges to attract more diverse students regardless of their background, levels of academic preparedness, and previous performance (Morest, 2013). These programs laid the foundation for the expansion of future opportunities for students to accelerate their ability to earn college credit.

In the 1980s, additional integration between secondary and postsecondary sectors began taking place which has continued to this day (ECS, 2021). In 1985, Minnesota became the first state in the U.S. (USDE, 2008) to adopt state-level dual credit legislation "enabling secondary pupils to enroll full-time or part-time in non-sectarian courses or programs in eligible postsecondary institutions" (Postsecondary Enrolment Options Act, 2019). In 2008, the Higher Education Opportunity Act (2008) established a national framework allowing eligible postsecondary institutions to concurrently enrol U.S. secondary students as students at their institution. Originally, DE was seen as a way to provide academically "gifted and advanced students" (Kilgore & Wagner, 2017, p. 57) a more challenging alternative to their "regular, age-graded high school programs" (Bailey et al., 2002, p. 9). Today, it has expanded from a niche program to include representation from students at many academic and socioeconomic levels (An, 2012). Interestingly, this type of program is distinct to the U.S. Although other countries offer programs by similar names, for example, Dual Credit Programs in Canada (Ontario, 2021), the U.S. is the only country to provide broad programming for high school students to concurrently enrol in university courses. Expanding participation in the U.S. has created both challenges and opportunities for supporting DE programming.

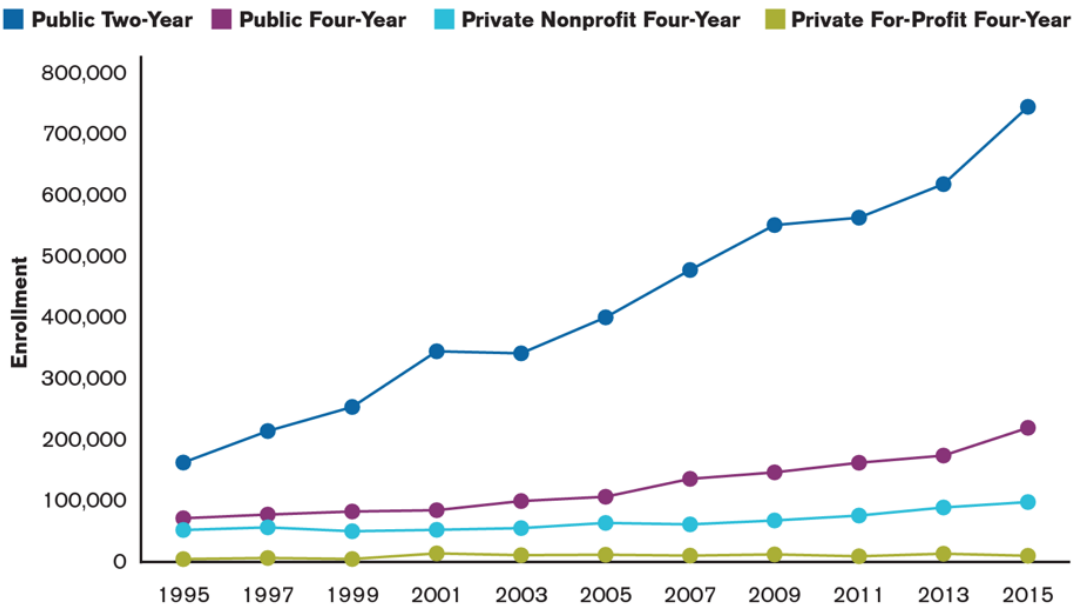
2.2.2 – Participation and Policy Development

Growing Participation

As the participants of this study are based out of a private university in Minnesota, this section will begin with the adoption and participation levels of that state and then expand into national adoption and participation levels. The upcoming section refers to PSEO which is a form of DE programming (see Sections 1.2 & 2.2) in Minnesota formalised in 1985. Since that time, the number of students participating has risen from 3,528 to 9,939 in 2017 (MOHE, 2019). That number jumps to 31,917 when concurrent enrolment students are included, which was introduced in 2007. As of early 2019, 18 private colleges, 8 public universities, and 33 community and technical colleges were participating in PSEO for a total of 59 institutions (MDE, 2019). In addition, the National Alliance of Concurrent Enrollment Partnerships (NACEP, 2021) found that in Minnesota, "42.8% of public high school graduates enrolled in at least one college course in the 2018-2019 school year" (para. 4) which exceeds the national average of 34%.

In 2017, (the most recent data compilation available at the time of writing) 82% of public high schools in the U.S. offered DE programming (NCES, 2020). The number of students participating in DE more than doubled between 2003 and 2011, jumping from 680,000 students to 1.4 million students (Xu et al., 2021). It is worth noting that this increase has not been distributed evenly across institution types. Fink et al. (2017) found that the majority of DE growth has been "concentrated in the community college sector" (p. 3) which held nearly 70% of enrolments in 2015 by students age 17 or younger, as shown in Figure 1 (community colleges are classified as "Public Two-Year" in this figure). By contrast, that sector only represents approximately one third of total higher education student enrolments (Dougherty et al., 2017).

Figure 1 – Fall Enrolments by Sector 1995-2015 of Students 17 or Younger
From: Fink et al. (2017, p. 3)



DE programming has become commonplace in postsecondary schools as they seek to strengthen and broaden student enrolment pools (Kilgore & Taylor, 2016). Since the majority of high school graduates attend a college in their home state (Yoon, 2019), institutions may be motivated to participate in DE as a matriculation strategy to increase their ability to attract local students. This can be encouraged by fostering partnerships between neighbouring high schools and colleges (Bailey & Karp, 2003). Factors contributing to the growth of DE from the

student perspective include accelerating the completion of degree requirements (Bailey et al., 2002), reducing the cost of postsecondary education which has been shown to be rising rapidly (Archibald, 2017), becoming more accustomed to a postsecondary environment's practices and expectations (Kilgore & Wagner, 2017), and gaining early exposure to a variety of college experiences (Bailey & Karp, 2003). Today, this program continues to provide a vital pathway for students seeking to jumpstart their higher education journey. In 2019, NACEP noted that 18 state governors discussed topics related to earning college credit prior to high school graduation in their "State of the State" addresses. In that same year, "states considered 219 bills related to dual enrollment" (Pompelia, 2020, p. 1).These numbers demonstrate how DE has become a topic of relevance to many states as part of their strategy for student success and expanding access to higher education.

Policy Development Attempts to Address Challenges

As DE has seen significant growth within the state of Minnesota, there have also been increasing concerns around key issues related to credit transferability, course rigor, and equity of access (MDE, 2017). At a national level, along with growing awareness and adoption, there is great variation amongst states in the format, eligibility requirements, and structure of DE programs and policies (Zinth & Barnett, 2018). These variations include areas such as participation parameters (NACEP, 2019b), responsibility for paying tuition (Kilgore & Taylor, 2016; Pierce, 2017), and ensuring program quality (HLC, 2013). Because of these variations, concerns have been raised about program quality, equity, and accountability, along with challenges to increasing transparency about credit transferability (CCHSWG, 2017). These areas must continue to be examined and addressed in order for the program to fully realise its potential. As of 2016, 47 of 50 states had developed official policies to oversee DE programming (ECS, 2021). These numbers demonstrate how DE has received increasing attention (Kisker, 2006) and reached the policy level of nearly every state (Pompelia, 2020) and yet "there is no comprehensive federal policy framework" (CHSA, 2021, p.3) or cohesive national policy strategy overseeing DE. Developing a federal policy would enhance the ability to define common issues and establish principles, priorities, and funding to support and strengthen DE programming (CHSA, 2020).

To help overcome these issues, the Higher Learning Commission (HLC), the regional accrediting body responsible for the state of Minnesota, developed accreditation standards related to DE in 2014 "ranging from faculty qualifications to academic rigor to learning outcomes and resources" (HLC, 2014, p.1). Likewise, NACEP has created standards and best practices related to partnerships, faculty considerations, assessment, curriculum, student eligibility and success, and evaluation for participating in DE programming (NACEP, 2019a). These are important steps to guide states, districts, and institutions in their attempts to shape program offerings as adoption levels increase. The ability to support DE students through specific policies, processes, and structures will improve to create more "seamless pathways for students" (CHSA, 2020, p.1) as institutions expand their engagement with entities such as NACEP and the HLC, and as policymakers move state and national initiatives forward. Having examined the current landscape of DE participation and policy, I will now look more closely at the value, opportunities, and challenges of DE for institutions and students.

2.2.3 – Value, Opportunities, and Challenges

One of the main drivers for states to create policy and legislation to support DE is that it furthers the nation's goal of increasing college attainment levels by allowing "students to progress to their next academic challenge without having to wait until high school graduation" (USDE, 2007). As Hofmann (2012) articulated, DE "embodies the college transition agenda from its unique position in the middle space" (p. 3) by assisting students to complete their secondary education and become more prepared for postsecondary education. The completion agenda Hofmann refers to aligns with what Carnevale et al. (2018) considered the "inevitable end game of education reform" (p. 13) by establishing "the bachelor's degree as the gold standard" (p. 13) for educational attainment and social mobility in the U.S. There is urgency for this reform as it has been noted that "social mobility in the United States is on the decline" (TCF, 2019, p. 2).

Since DE programs allow high school students to take courses from multiple institutions (MDE, 2018), students have the opportunity to sample the educational experiences of multiple institutions as part of their process for

evaluating and selecting postsecondary schools. Moreover, studies have shown that students in Minnesota who participate in DE programs demonstrate higher rates of college readiness and persistence (Davis et al., 2017; Nathan et al., 2005). Improved preparedness and success in postsecondary education will ultimately contribute to fulfilling the nation's college completion agenda (Rubin & Hearn, 2018). Furthermore, by jumpstarting their college education, DE allows students to potentially shorten their time to degree (HLC, 2013). Shortening the time to degree will allow students to enter their chosen field of employment more quickly which has employment, civic, and market advantages (Higher Education Opportunity Act, 2008).

In addition to providing benefits to students, DE also provides value and opportunities to institutions as well. One of the desired benefits for secondary institutions participating in DE is their ability to increase the rigor and intensity of education (Bailey et al., 2002) which is an area that has been targeted and criticised by various constituents (ACT, 2007; Mirpuri & Jimenez, 2019). DE can also strengthen the collaboration and partnerships between secondary and postsecondary sectors (ECS, 2021; Karp et al., 2007; Williams & Perry, 2020). As noted by Carnevale et al. (2018), some have even argued that creating a single K-16 system that directly integrates secondary and postsecondary sectors is in the best interest of the nation (Kisker, 2006). However, as the relationship between these sectors evolves and strengthens, it presents an existential fault line between two ideological positions and directions as Bailey et al. (2002) noted:

> At one extreme, it could fundamentally change the content of the high school junior and senior years and at the same time promote a more focused and perhaps coherent role for postsecondary institutions, particularly community colleges. At the other extreme, it could reduce the amount of effective education received by students if they emerge from high school having learned exactly the same things that they would have in a regular high school program, but now having accumulated some college credit for that high school education (pp. 30-31).

Time will tell which direction the relationship moves and what ramifications that presents. Regardless, it will be important for policymakers and academic leaders to collaborate and work together on effective ways to coordinate student mobility between these two sectors (Karp, 2015). These sectors will be stronger if they can work together to clearly define and articulate their roles in

developing students and facilitating successful transitions (O'Donnell et al., 2016). Here again is where DE can help support students in the "middle space" (Hofmann, 2012). Somewhat provocatively, Karp (2015), referencing Hofmann's concept, envisions that if DE is implemented fully and successfully, it "may go even further, eliminating the middle space entirely" (p. 106) by strategically and systematically restructuring and linking these two sectors where greater collaboration between institutions takes place. Links from this type of reform would create smoother pathways and "greater curricular coherence" (Dougherty et al., 2017, p. 19) between secondary to postsecondary environments. This would address the fragmentations of different governance and funding structures (Kisker, 2006) and may even result in a reclassification of institutional categories applied to higher education that have been in use since the 1970s (McCormick & Cox, 2003).

Jones (2017) identified another key contribution that DE programs provide, particularly in serving community colleges. Just as community colleges are positioned to increase access to higher education for individuals "seeking to avoid downward mobility" (TCF, 2019, p. 3), DE also aims to provide early access to students, particularly to underrepresented populations (Pompelia, 2020; Williams & Perry, 2020; Zinth & Barnett, 2018). This factor is especially relevant for students and families in the state of Minnesota where the PSEO program is state funded (MDE, 2017) which provides significant financial savings on the cost of postsecondary tuition. The expansion of DE to support increasing numbers of underrepresented student groups represents a shift from its original purpose to provide opportunities to only academically strong students (see Section 2.2.1). This theme is consistent with other research looking at the benefits of DE as it relates to college readiness and academic achievement of all students (CCRC, 2012) and especially those from more diverse socioeconomic settings (An & Taylor, 2015; NACEP, 2021).

Despite the aforementioned benefits, there are challenges that should not be overlooked. For example, Kilgore and Wagner (2017) note that "private institutions are less likely than public institutions to accept dual enrollment credit for transfer" (p. 61). Similarly, the growth in enrolment has not been equitable across student types. For example, Williams and Perry (2020) noted

disparities with participation levels between genders and race/ethnicity across various states. While many studies promote the positive benefits of participating in DE, An (2015) notes that the majority of research examines *whether* DE has a positive influence but very few focus on *how*. This leaves "the processes through which dual enrollment programs influence a student's college experience as a black box" (p. 100). Among barriers to participation in dual enrolment, Kilgore and Taylor (2016, p. 46) found that institutional culture, particularly by institutions that prioritize research and are concerned faculty would not embrace a secondary population, was the reason most cited by institutions who are not participating. This barrier and others will need to be considered and addressed as this program matures. Weinstein et al. (2011) warned that "at a time when we have increasing needs for an educated and skilled citizenry and workforce, the number of students entering postsecondary education who are not prepared to benefit from their studies is increasing" (p. 51). Morest (2013) argues that the process for preparing for higher education needs to begin well before students begin taking college courses which is a need and opportunity DE can help meet.

2.3 – Summary

This chapter provided a critical review of literature and research related to DE programming with particular attention given to Minnesota. Relevant background features of DE were explored including how it has grown to become a pathway for students to gain early access to postsecondary experiences and for institutions to establish a matriculation pipeline. Within this context, I have shown examples of the benefits to students and institutions through participation in these programs and have also demonstrated some of the challenges that must be addressed by states and policymakers. Engagement in DE has become a critical enterprise for student transitions as they seek to bridge the gap between secondary and postsecondary learning environments. This warrants an examination of the transition experience of DE students and how they can approach the management of their learning in university courses which will be explored in the next chapter.

CHAPTER 3 – STUDENT TRANSITIONS AND MANAGING LEARNING

3.1 – Introduction

The previous chapter contextualised the dual enrolment (DE) landscape which set the stage for this chapter focusing on learner transitions and approaches to managing learning. Although the study was originally conceived to focus entirely on understanding the strategies and practices DE students use to manage their learning, aspects of the transition experience featured so prominently in the data from participant interviews that a critical analysis of the literature on learner transitions was needed to help position these experiences.

The chapter will begin with a critical review of the literature on learner transitions and the transition context of DE (Section 3.2). Special attention will be given to research on student experiences moving from secondary learning environments (SLE) to postsecondary learning environments (PSLE), and moving from in person to online learning environments, both of which are relevant to DE. This will be followed by an examination of various theories, conceptualisations, and themes of transition experiences (Section 3.3), with particular attention given to Beach's (1999) theory of consequential transitions and Wenger's (Wenger-Trayner et al., 2015) theory of landscapes of practice (LoP), to provide theoretical lenses from which to analyse my findings. From this point, the chapter will critically examine literature on self-regulated learning (SRL) as a potentially useful framework for understanding how students manage their learning (Section 3.4). This section will outline influences of a social cognitive theoretical perspective on SRL with special attention given to Zimmerman's (2013) cyclical model and Pintrich's (2004) four-phase model as the key frameworks underpinning the study and will conclude by expanding on the relationship between SRL and self-efficacy. After the review of SRL, a more focused and critical analysis of SRL as it applies to the learning environment of DE will be undertaken with specific attention given to postsecondary and online contexts (Section 3.5). The sections of this chapter will provide the needed information, interpretative tools, and analytical frameworks to analyse and explain the research data in order to situate the study and from which the study's research questions can be addressed.

3.2 – Learner Transitions

Having explored the background and context for DE in Chapter 2, it is clear that the program is situated at the intersection of SLEs and PSLEs, or what Hofmann (2012) called the "middle space." Unlike a traditional university student who first completes their secondary education and then fully transitions to a postsecondary institution, participation in DE programs require students to operate with a markedly different experience, one where students live in a constant state of transition for months or even years. As demonstrated by Fink et al. (2017), and shown in Figure 1 (see Section 2.2.2), the vast majority of dual enrolment participation has taken place at public, two-year community colleges and not in private, four-year institutions where this study took place. Therefore, the available body of research on DE has primarily focused on students in these types of environments. However, research from both two-year and four-year environments will be helpful for understanding student transitions experiences of moving between sectors and modalities, which are both relevant to DE transitions. The next sections examine dynamics related to the transition landscape of DE programs which will lay a foundation for Section 3.3 that explores various conceptualisations and theories of learner transitions, and outlines the theoretical frameworks on which this study will draw to help interpret the experiences of DE students.

3.2.1 – The Transition Context of Dual Enrolment

As outlined in Section 2.2, DE programming provides an early access point into higher education systems. It is helpful to recognise that higher education is experiencing a dramatic increase in the variety of students participating in programs. For example, there are higher numbers of "non-traditional" adult learners, international students, and secondary students participating in acceleration programs such as DE (David, 2009; Devlin & McKay, 2014; Morley & Lussier, 2009). When looking more closely at student transition experiences, "it is impossible, then, to speak of student transition in higher education in the singular" (Gale & Parker, 2014, p. 745). Institutions can no longer assume their established programs and procedures designed to support a traditional, homogeneous student population will be effective as student diversity increases (Knox & Henderson, 2010). To understand DE transitions requires an understanding of both the broader transition context of postsecondary education

just described along with an understanding of more specific ways DE students interact with the higher education sector. A key issue for student success at any level, and especially DE, "is the transition between differently structured learning environments" (Scott et al., 2014, p. 12). In reality, participating in DE represents a *partial shift* to a different learning environment which "brings new sets of risks, because the students must negotiate the meaning and significance of the everyday practices embodied in the new learning setting" (Christie et al., 2008, p. 579). The DE transition should be thought of as a partial shift since learners have not fully left their SLE, nor fully entered into a PSLE. Two significant types of structured environmental changes DE students experience include the adjustment from a SLE to a PSLE along with an adjustment from in person to online learning modalities (Kilgore & Wagner, 2017).

3.2.2 – Secondary and Postsecondary Environments

One of the primary considerations of the transition experience for DE students is their movement into a PSLE while remaining a part of their existing SLE. Students must recognise that both SLEs and PSLEs have systems, structures, operations, and experiences that are materially different (TCF, 2019). Dembo and Seli (2013) highlighted several experiential differences for students between these environments including times of operation, class and program structures, student support offerings, and requirements for progression. They go on to effectively described some of the differences between environments noting that high schools tend to follow a compacted schedule with students in classes 30 hours per week with up to15 hours of homework; however, universities tend to flip that model by have alternating class days and times where students spend 12-16 hours in class per week with up to 30 hours of homework. Another difference noted is that secondary contexts often allow students to retake or resubmit assessments if scores are low. In postsecondary contexts, the typical experience is that an assessment can only be completed once. Furthermore, high schools tend to be more lenient with assignment submission due dates where universities tend to enforce deadlines or include greater consequences (e.g., grade reductions) for late work. In addition, students may participate in DE courses from multiple institutions at the same time which increases the diversity of experiences and challenge of balancing various expectations at a given time.

Bailey et al. (2002) noted the difficulty students face in the process of adjusting to a PSLE and fully understanding the expectations of being a learner in that setting. If students have incorrect or incomplete expectations about higher education, and cannot recalibrate themselves quickly during the transition, there is a risk they will fall behind or not succeed academically (Gale & Parker, 2014). Maunder et al. (2012) explored the phenomenon of expectations versus reality of students entering PSLEs and noted that there were often conflicts and discrepancies between the two. For example, several students expected more difficult coursework and increased pressure, and were surprised that it was not like this. Without a grasp of understanding how to succeed in a PSLE, Christie et al. (2008) found evidence suggesting that "the students' security was threatened by a lack of tacit knowledge about the rules of the university" (p. 571). DE can help students by raising awareness of postsecondary expectations earlier (An, 2015) and improving college readiness (Kilgore & Taylor, 2016). As such, DE students can develop and increase confidence in their ability to succeed in subsequent courses and as a university student. However, this is not necessarily a universal experience. Hu and Chan (2021) did *not* find that students "who took at least one DE course on a college campus by 11th grade were more likely to be college ready" (p. 21); in particular, differences were noted between students from different socio-economic statuses.

DE also provides opportunities for students to "make the psychological transition" (Bailey et al., 2002, p.12) of being a higher education student (Duncheon, 2020) by facilitating engagement in that context (Van Kleef & Werquin, 2013). Through participation in DE, students "learn to navigate a complex system of bureaucratic requirements, learn new study habits and time-management strategies, and engage in new kinds of social relationships" (Karp, 2012, p. 22). In studying the process of becoming a university student, Christie et al. (2008) noted that "many [non-traditional] students described the process of transition in emotional terms" (p. 570). They identified that one reason for the emotional attachment to the transition process is that it presents the opportunity, and even the requirement, for students to create a new identity (a topic further explored in Section 3.3.1). For example, Duncheon's (2020) study of secondary students learning at a community college found that interacting

with instructors was “intimidating” at first and that students were initially “nervous” to engage with older classmates.

The transition experience of DE students effectively represents Quinn’s (2010) description that “transition, rather than being a rare event, is actually an everyday feature” (p. 124), as these students are concurrently engaged in multiple contexts. This is similar to the daily transitions Hughes et al. (2010) studied of children moving between home and school where the transition is “ongoing and oft-repeated…between two simultaneously coexisting contexts in the child’s life, rather than a single transition between two successive contexts” (p. 16). They recognised that students are constantly negotiating their identity, behaviours, and roles in various contexts. Similarly, transitioning to higher education also poses the challenge of “constructing a new identity and a sense of belonging” (Honkimäki & Kálmán, 2012, p. 247).

Going further, Karp (2015) questions that value of using traditional student identities and classifications, such as *high school senior* versus *college freshmen*, since DE brings both types of students together. However, if a learner cannot concurrently navigate the various structures and negotiate their identity and expectations for participation in unique learning environments, they may behave in ways that are incongruent with achieving academic success in a particular setting (An, 2015; Hussey & Smith, 2010). DE can help students develop greater independence and freedom (Kanny, 2015) to be successful in a PSLE. Students who develop in this way follow what Christie et al. (2008) described as “new ways of learning…and moving closer to the model of the ‘independent learner’” (p. 573) which may require a shift in their self-conceptualisation. To help students understand their role while transitioning into PSLEs, Wingate (2007, p. 394) argues that universities must communicate to students that they are “to become independent learners, taking responsibility for their own learning” since university courses require increased autonomy and self-direction (Duncheon, 2020). These are essential characteristics of success that students must possess as they build their self-efficacy (Bandura, 1997) of being a college student. However, it must be noted that although these goals are well intentioned, it has been shown that they are not always realised. A 2012 study across 47 states showed that DE programs do not always provide “an authentic college

experience" (HLC, 2014) which may result in students having incorrect or incomplete expectations or ideas about what their identity should be. Participants and proponents of DE must be mindful of this reality.

For many DE students, the challenges discussed in this section of transitioning to a PSLE are coupled with the challenges of transitioning to a different learning modality which will be explored next.

3.2.3 – In Person to Online Learning Environments

Another distinct characteristic of the transition experience for many DE students is the transition from in person to online learning. Although not all DE programs operate online, increasing numbers are moving in this direction (ECS, 2021). Learning online can present a myriad of challenges for students, such as a lack of familiarity and experience with the online environment (Schulze & Scholz, 2018), needing to create a new role and identity (Cleveland-Innes & Campbell, 2012), limitations to establishing social presence and connections with others (Richardson et al., 2017; Stephen et al., 2020), and facing technical challenges (Bates & Khasawneh, 2007; Stocker, 2018). Abdous (2019) found that as students enter this new sociocultural learning environment, they are "often pressed to unlearn longstanding learning habits and to engage in new ways of learning" (p. 34). Wisneski and Ozogul (2019) found that this change can create feelings of anxiousness and insecurity as students attempt to transfer the knowledge and skills learned in other courses and modalities into the online environment. They specifically found that "students' self-judgment about their capabilities" (p. 17) were a critical contributing factor to online course satisfaction and completion. The need for learners to have skills and knowledge they can control and use, such as the "self-generated thoughts, feelings, and actions" (Zimmerman, p. 14) found in self-regulation (see Section 3.4), increases with each new and different environment they engage with. It is ultimately the learner's responsibility to purposefully engage with the community and use the skills and strategies they have developed to support their success. Advocates of designing effective technology-enhanced learning environments therefore stress the need for ensuring that students are "supported in acquiring and transforming their knowledge and skills to make them flexible across the different learning settings" (Aprea & Cattaneo, 2019, p.378).

Whether transitioning from an in-person environment, or simply learning online, Peacock et al. (2020) noted that some "find online learning to be a lonely experience from the outset" (p.19). Their research found that student interaction and learner support were key factors in developing a sense of belonging which was highly valued by online learners. This was supported by the findings of Symeonides and Childs (2015) who identified the challenges of establishing relationships and getting support in an online environment due to the increased reliance on written communication. Successful collaboration in this way may require the development of a new type of competency for learners as they navigate their role in an online community (Cleveland-Innes & Campbell, 2012) rather than relying on modes of communication and expression that were available when learning in person. While some institutions may be tempted to view online learners as lone, independent learners, it is more useful and accurate to see that online learners desire a sense of belonging "in a new and potentially alienating environment, remote from the physical campus and separated physically from their peers" (Peacock et al., 2020, p.30). The value of establishing social presence and connections has been shown to be an "exceedingly important function in predicting essential student outcomes, namely satisfaction and perceived learning" (Richardson et al., 2017, p. 412). As previously mentioned, it is helpful to not only think of transitions in physical or intellectual terms, but to also acknowledge that there are social and emotional elements of a transition which can impact the whole person. Just as Christie et al. (2008) noted the emotional impact of a transition to university, the emotional impact in transitioning to online learning was also recognised by Cleveland-Innes and Campbell (2012) and has the power to either support or detract from the transition experience.

Given the significant contextual changes that today's learners regularly face, they must be adaptive to their environments and to create what Quinn (2010) refers to as a "fluid learning self." This view of learning and of learner characteristics resonates with Bauman's (2018) conceptualisation of a "liquid world" where the dynamic nature of today's society and environments means the flow of time is of greater importance than space and physical proximity, such as in online learning environments. This requires what Barnett (2012)

described as “liquid learners” and “ecological learners.” These types of learners are in a state of constant transition as they face “a world at once of dissolving boundaries, of uncertain and competing currents and of turbulence” (Barnett, 2012, p. 10). The manifestation of this for DE students is that they must simultaneously navigate between various contexts of learning, operate in an expanding “middle space” (Hofmann, 2012), and be able to engage with and synthesise learning from the broader world. Barnett goes on to argue that the transitions between environments themselves are not of great significance, but rather “how those learning transitions are viewed by the learner and the learning gains” (2012, p. 20) that occur as a result of those transitions. This type of learning context warrants a consideration and exploration of how DE students manage their learning which will be explored in Section 3.4.

This section began by looking at themes and challenges related to student transitions pertinent to DE, with specific attention given to secondary to postsecondary transitions, as well as transitions from in person to online environments. A key theme from this section was the resounding call for today’s students to become independent learners (Christie et al., 2008; Quinn, 2010; Wingate, 2007). The following section will provide a critical examination of transition theories and conceptualisations that will be helpful to further contextualise this study.

3.3 – Transition Theories and Conceptualisations

As the previous section examined, DE transitions are multi-layered and complex. This assessment of transitions can be more fully understood through a broader examination of transition theory. Gale and Parker (2014) note that the experience of transitioning is a topic that is “under-theorised” in literature and that, when it is addressed, the focus tends to be on *what* it is rather than the equally important matters of *why* and *how* transitions occur in the lives of individuals (O’Donnell et al., 2016). Despite this claim by Gale and Parker, contemporary transition research has expanded and developed numerous conceptualisations about transitions. Major components of these conceptualisations include elements such as how a person’s sense of identity is impacted during a transition (O’Donnell et al., 2016; Quinn, 2010), the role peers can play in a transition (Wenger-Trayner et al., 2015), the influence of

society and institutions on transitions (Pritchard et al., 2010), transferring and translating prior knowledge to new contexts (Engeström & Sannino, 2020), and movement from one context to another along various trajectories (Fenton-O'Creevy et al., 2015b). The following sections will address these factors through examples that follow in the sociocultural theoretical tradition of transitions (Vygotsky, 1978) which Crafter and Maunder (2012) argue is a helpful approach for understanding transitions as it "situates the individual in a wider social and cultural context" (p. 17). There are many dynamics present when considering and attempting to understand transitions. O'Donnell et al. (2016) provide a helpful picture of transitions as being "more than just a move between educational contexts, or a bounded period of time; instead, transition is understood as a complex social phenomenon in which the relationships between individuals and their contexts are inextricably linked" (p. 11). The first major component of transitions that will be examined is the influence on shaping an individual's identity.

3.3.1 – Identity Formation, Negotiation, and Reconciliation

The impact to an individual's identity features prominently throughout transition research and literature. How identify formation is manifested by moving between new contexts and being exposed to new experiences ranges across theorists. For example, Zittoun (2004) uses the vivid term "rupture" to refer to the moments and events that change a person's inner self, their surroundings, or location that create disequilibrium and "put at stake certain routines or taken-for-granted situations…in the regular flow of one's experience" (p. 131). A rupture requires an individual to redefine their own identity. While a transition can be driven by a singular event, more theorists view transition as a process. For example, Gale and Parker (2014) endorse the notion of transition as "becoming" as an individual navigates multiple contexts which continuously shape their identity. Thinking of transitions in this way suggests identity formation is in a constant and perpetual state, rather than implying an individual can fully "become" at which point identity work is complete. Similarly, Quinn (2010) does not consider a transition to be an event, such as a rupture, but rather a condition, or a state of being, that requires continuous identity (re)development. Wenger (1998) argues that identity formation is an ongoing socially-negotiated experience and requires an individual to reconcile

the “interaction of multiple convergent and divergent trajectories” (p. 160). Like Quinn, Wenger also views identity as a process of becoming. Fenton-O’Creevy et al. (2015) recognise the reality that everyone has various levels of participation and memberships in multiple groups which requires “reconciling different aspects of our identities [as] a consequence of multimembership” (p. 33). This type of identity formation, as a result of multimembership from movement between contexts, leads to an individual being exposed to new types of information, knowledge, and ways of behaving which must be reconciled (Kubiak et al., 2015a).

3.3.2 – Social Knowledge and Knowledgeability

The transfer of skills and principles between settings is a common challenge in education (Bruner, 1977). It is assumed in some of today’s learning practices that “learners will be able to transfer the skills learned in an instructional setting and apply them to problems in different settings” (Wisneski & Ozogul, 2019, p. 88). This line of thinking emphasises the actions and capabilities of the learner. Developing knowledge and skills requires negotiation by the learner within their social contexts (Wenger-Trayner et al., 2015). Beach (1999) argued that individuals do not simply carry “the product of learning from one task, problem, situation, or institution to another” (p. 101); rather, he offered an alternative, socioculturally-informed view of transfer where “learning, development, and education are inherently cultural as well as personal enterprises” (1999, p.103). Wenger (1998) was also concerned with the ability to productively translate previously acquired knowledge into new settings. He suggested that there is a connection between the context of practice and the ability to apply knowledge “where it arises out of the combination of a regime of competence and an experience of meaning” (Wenger, 1998, p. 141).

In addition to the transfer of knowledge, there is an interaction that happens between the learner and the social environment which is foundational to sociocultural theories. Social environments are not static, and neither are the learners that comprise them. Rather, as Beach (1999) argues, “learners and social organizations exist in a recursive and mutually constitutive relation to one another across time” (p.111). Zittoun (2004, 2008) contends that when a learner experiences a rupture, the result is that the learner must search for and

leverage new skills and knowledge and be able to construct new meanings and cognitive resources in order to interact within their social context(s). This new meaning is shaped by the social environment and other members of the community. Lave and Wenger (1991) illustrate how a learner who gains context-specific knowledge is allowed to more fully enter into social dimensions as a form of “legitimate peripheral participation.” The new skills and knowledge often come from others who have experience in the setting or community, what Lave and Wenger (1991) would call the “old timers” of the community. These are the members who can expose an individual to the “symbolic elements” (Zittoun, 2004), “artifacts” (Wenger, 1998) and special knowledge of the community. They are able to show newcomers methods to harness resources by gaining additional social knowledge (Zittoun, 2008) during the transition and beyond.

In an educational context, Wenger (1998) argues that learning opportunities can be “impaired when experience and competence are too close and when they are too distant” (p. 140). This idea resonates with Vygotsky's (1978) notion of the Zone of Proximal Development where through interaction and support of others an individual can make greater progress and reach beyond their current levels of understanding (Pritchard et al., 2010), perhaps to reach levels of legitimate participation. Building on research that shows learning is socially constructed (Vygotsky, 1978), it is fair to say that learning involves, and perhaps even requires, co-participation between individuals and other learners in a given context. These relationships emphasise the importance of social connections to not only understand the social knowledge of a setting but to potentially enhance the individual’s sense of belonging (Crafter & Maunder, 2012).

When considered from a sociocultural perspective, assumptions of a learner’s continuity of knowledge and capabilities, the unchanging nature of environments for completing tasks, and the intentional (cognitive) application of skills associated with transfer can be problematic. It is for these reasons that Beach (1999) introduced the theory of “consequential transitions” as a more “effective means of looking at relationships between individuals and social contexts both of which are in a continuous state of change” (Van Kleef & Werquin, 2013, p. 658). Beach (1999) was attempting to address limitations with the historical

understandings of the transfer of knowledge across situations (Beach, 1995) while at the same time rejecting the Cartesian dualism which separated the experiences of individuals from their multiple environments (Jornet et al., 2016). Realising that individuals must contend with multiple environments is the very reason Wenger (1998) introduced the concept of "knowledgeability" which recognises that 21st century learners are not contained to only one context or domain, but rather they have a "connection with a multiplicity of practices across the landscape" (p. 81). Therefore, care must be taken to acknowledge the sociocultural features of transition. These features may result in challenges or clashes amongst cultural norms when engaging with a community, as when DE students move from secondary to postsecondary settings or begin learning online (as referenced in Section 3.2.3). For example, Van Kleef and Werquin (2013) demonstrated how immigrant nursing students with prior learning experience wrestled with being accepted within a new community of nursing practitioners. The immigrant students found that their prior knowledge, which was derived in a very different historical and social context, was not accepted as legitimate knowledge. Their transition experience highlights one of the types of challenges that come when crossing boundaries from one context to another.

3.3.3 – Boundary Crossing

Moving through and between environments is a common and potentially significant experience (Tynjälä et al., 2012). The movement between contexts and settings has been conceptualised by Wenger (1998) as crossing a boundary. This happens when an individual moves between various group settings, such as from one community of practice to another (Lave & Wenger, 1991), and can challenge a learner's sense of identity and feeling of legitimacy as discussed in the previous section. When an individual crosses a boundary of practice they must be ready for "potential misunderstanding and confusion arising from different regimes of competence, commitments, values, repertoires, and perspectives" (Wenger-Trayner & Wenger-Trayner, 2015, p. 17). A study of students learning to become healthcare professionals noted the challenge of continually crossing and re-crossing boundaries along with the need to adapt their identity and manage the expectations of others based on the various contexts they were in (Wenger-Trayner et al., 2015). These students experienced a disjunction between their various domains of participation.

As the previous section highlighted, there is a challenge with transferring knowledge (Beach, 1999) between various practices and groups. The skills and abilities of an individual may not have compatibility or utility with socially-constructed knowledge. The traditional notion of crossing the boundary of fragmented educational systems (Karp, 2015) from secondary into higher education contexts is problematic for Quinn (2010) who advocates for more flexibility in the higher education system. She challenges the classic understanding of a transition into higher education which has been conceived of as a "fixed turning point which takes place at a preordained time and in a certain place" (p. 122). The learning trajectories of today's students are more varied and dynamic than in the past and will require new ways of entering and exiting PSLEs to support their unique goals and desired levels of engagement during transition.

Several practices have emerged to help facilitate more successful boundary crossings. For example, locating and identifying "boundary objects," items that are "common enough to more than one world to make them recognizable, a means of translation" (Star & Griesemer, 1989, p. 393), can support connections and continuity between various practices (Akkerman & Bakker, 2011). Students may also need the assistance of others in "brokering" various boundaries (Kubiak et al., 2015b), identifying boundary objects, and in developing a working sense of knowledgeability (Wenger-Trayner et al., 2015). Fenton-O'Creevy et al. (2015a) suggest that "courses which are explicitly designed to bridge [boundaries] can play an important role in helping students reconcile and differentiate their experience" (p. 60). This type of orientation experience for students can help them identify boundary objects and brokers, facilitate early connections with other students, and correctly orient students with activities aligned with the direction of their learning goals.

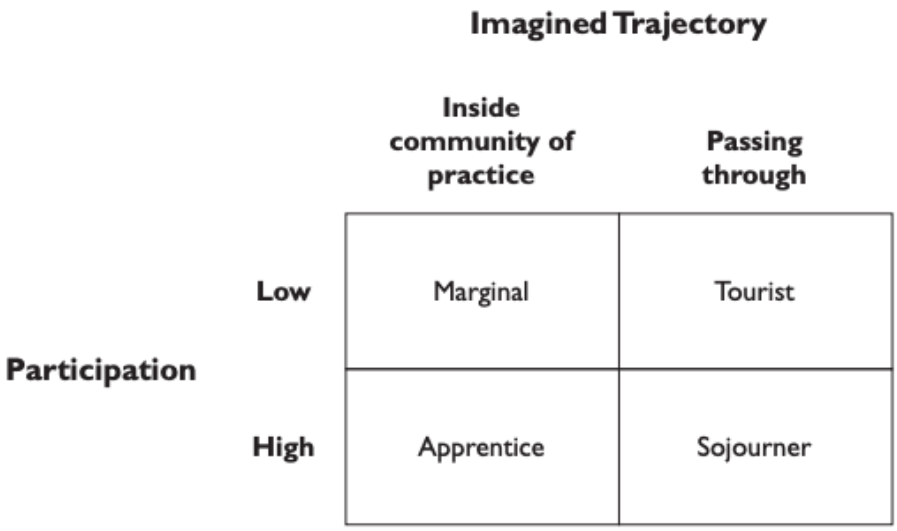
3.3.4 – Activities and Directionality of Transitions

The word "transition" implies movement from one point or context to another. Wenger (1998) would refer to this movement as a trajectory. Although it is a personal experience, it is shaped by the social environment and community surrounding the transition. The community encounters experienced on a

trajectory impact a person's identity (Wenger-Trayner et al., 2015). Lave and Wenger (1991) originally imagined trajectories of participation in Communities of Practice (CoP) as new members began outside of the community and then worked from the periphery toward the centre, potentially becoming an "old timer" of that community. While that conception of CoP is still appropriate in certain contexts, it is not sufficient to account for all learners given the robust landscape of learning found today.

Fenton-O'Creevy et al. (2015b) envisioned additional types and classifications of participation based on an individual's level of involvement and engagement within a community, as shown in Figure 2. For example, someone who desires high levels of participation and will likely stay within the community for an extended time would be considered an Apprentice. Alternatively, someone who might shy away from opportunities to participate and does not have long term commitments in the community would be considered a Tourist. These classifications can be helpful in understanding, interpreting, and supporting learners on their personal and divergent learning trajectories.

Figure 2 – Forms of Peripheral Participation
From: Fenton-O'Creevy et al. (2015b, p. 44)



Gale and Parker (2014) discuss how the language associated with moving through transitions reveals the philosophical priorities and assumptions held about transition. For example, speaking about learner "trajectories" puts greater focus

on the *individual* and favours a developmental viewpoint, which is defined as movement across various stages. This is in contrast to an inductionist perspective to transitions which favours learning "pathways" that are created by *institutions* which learners enter and travel. Bandura (1977) argued that it is important to resist the temptation to classify individuals by stages, a developmentalist perspective, to combat against potential stereotyping and forced conformity associated with this type of categorisation. Gale and Parker (2014) take issue with assumptions made by both inductionists and developmentalists and instead advocated for a view of transition as becoming (see Section 3.3.1).

Similarly, Beach (1999) suggested a typology of four different transitions that an individual may encounter including lateral, collateral, encompassing, and mediational transition experiences. Lateral transitions "occur when an individual moves between two historically related activities in a single direction…participation in one activity precedes and is replaced by participation in another activity" (p. 114). These types of transitions are relatively easy to identify and are typically not experienced on a regular basis (e.g., moving into secondary school from primary school). Collateral transitions "involve individuals' relatively simultaneous participation in two or more historically related activities" (p. 115). These types of transitions are far more common in everyday life (e.g., adult learners attending professional development training or school children moving between different classes). Encompassing transitions "occur within the boundaries of a social activity that is itself changing" (p. 117) and is reflected well in Lave and Wenger's (1991) notion of "legitimate peripheral participation" and the idea of newcomers becoming "old-timers" inside a community as described earlier. Mediational transitions "occur within educational activities that project or simulate involvement in an activity yet to be fully experienced" (p. 118) by the learner (e.g., children role playing or training and simulations in vocational education). In each type of transition, there is "some form of consequential change in the relation between the individual and one or more social activities across time" (p. 130). Examples of consequential transitions within education can include moving from primary to SLEs, postsecondary education to the workforce, postsecondary to graduate school, and from the workforce back to PSLEs.

In addition to the typologies of transitions, Beach (1999) also identified four "methodologies" for exploring consequential transitions including developmental couplings, leading activities, heterochronicity, and horizontal development. Developmental couplings recognise that both individuals and societies change and that the "coupling itself transforms or develops. Its directionality and causal relations are not efficient or antecedent/consequent; rather, they are correlational or relational in nature" (1999, p. 120). Leading activities, which feature prominently in Activity Theory (Beach, 1995), recognise that activities exist and are shaped by broader societal forces. Some activities may have greater importance for preparing for later activities. Heterochronicity considers the sequencing and timing of activities which may have a greater influence on a consequential transition. Horizontal development "consists of the transformation or creation of a new relation between individuals and social activities, not continuities or discontinuities experienced by participants at some points in the transition" (1999, p. 128). In each type of transitions, the idea of personal progress and development is central to Beach's argument which goes beyond simply transferring knowledge from one setting to another (Crafter & Maunder, 2012). This is consistent with the previous sections that identified changes in a learner's identity that comes "through the process of participation and experience in the social context" (O'Donnell et al., 2016, p. 11).

3.3.5 – Consequential Transitions and Landscapes of Practice

As mentioned at the beginning of Section 3.3, the sociocultural theoretical tradition, particularly that of Vygotsky (1978), has been considered as the theoretical foundation for understanding transitions. From this starting point, several additional theories have evolved which could provide value for this study. In particular, the theories of consequential transitions and LoP can provide a possible lens for describing and understanding the transition experience of DE students. In addition to those selected theoretical perspectives, other theories could have been considered for this study. For example, cultural-historical activity theory (CHAT) and CoP are two contemporary theories that trace their lineage to Vygotsky's work.

CHAT (Engeström, 1988) has been called a forgotten legacy of Vygotsky (Roth & Lee, 2007). In particular, the "third-generation" activity theory appears to have relevance to the study of DE students as it represents the "lateral interactions across the boundaries between participating activity systems" (Engeström & Sannino, 2020), has the ability to recognise that individuals may potentially "experience multiple subjectivities" (Williams et al., 2007b), and handles "contradictions" as a mechanism for changes in activities (Roth, 2012) particularly between activity systems (Daniels & Warmington, 2007). However, there are challenges with using CHAT as a basis for this particular study. One issue relates to the complexity of fully capturing the correct "nexus" of systems to accurately represent the intended boundaries and subjectivities and individual encounters (Williams et al., 2007a). This type of challenge was recognised by Langemeyer & Roth (2006) who wrestled with "how it [CHAT] can simultaneously represent a "germ cell" and reduce the complexity of the whole in a "manageable way"" (p. 29). For this study, the nexus of systems may have included activity systems of both PSLEs and SLEs, which would have been unique for each participant. Another misalignment of CHAT for this study comes from recognising that in "CHAT, the idea of activity centers on human collectives rather than individuals" (Foot, 2014, p. 333) which means the individual is conceptually "indivisible" from the entire system. This would require the scope of research for CHAT being broader than what is intended in this study by defining and potentially exploring each node in the activity system (Miles, 2020). For example, an essential element of CHAT is to define the labour power of the groups, or the division of labour, within the activity systems (Daniels & Warmington, 2007) which is not the focus of this study.

Wenger's (1998) CoP is another well-established theory that recognises the importance of participating in social experiences as the foundation for learning and the development of an individual's identity. This theory recognises the reality of community "multimembership" and the placement of "boundaries" between these communities. There appears to be an assumption in this theory that participants are working to become "full members" into the community they are engaged in, ultimately becoming "old timers" (Lave & Wenger, 1991). In the context of DE, it is not accurate to assume all students intend to become full members of the community or to even become full-time university students.

While there certainly is an element of wanting to experience belonging with the community (Wenger, 1998) that is not necessarily the goal for every student. In addition, part of the core framework of CoP is recognising and understanding that the community itself experiences transition as new members continue to enter (Crafter & Maunder, 2012) which is outside the scope of this study.

Having briefly explored why CHAT and CoP were not selected for this study, the two selected theoretical positions, along with rationale for their use, will be provided.

Why Consequential Transition Theory for this Study?

The theoretical framework of consequential transitions provided by Beach (1999) provides a potentially helpful theoretical lens in which to view the experience of DE students. Entering into a DE program can be thought of as both a lateral and collateral type of "consequential transition." It introduces a new social structure and environment which the individual (learner) must negotiate and enter into relationship with while still being a member of the existing SLE, changing the student's sense of who they are. Hall and Jurow (2015) apply this idea to the concept of "consequential learning" to create a situated perspective of learning that takes into account the "historical contingency in what is valued, making developmental transactions across cultural settings, and changing scales of participation (in time, space, and social relations)" (p. 177). This notion takes Bruner's (1996) consideration of human development as acquiring "accumulated knowledge" and "technology of one's ancestors" (Olson, 2007) into the development of "representational infrastructures" (Hall & Jurow, 2015) to provide mechanisms for identifying and translating meaning within a social setting to enable learners to be successful. The nature of DE student experiences might also be understood through Beach's methodology of developmental couplings and challenges the historical notion of leading activities since these students are simultaneously participating in a SLE and PSLE.

Why Landscapes of Practice Theory for this Study?

The theoretical framework of LoP developed by Wenger-Trayner et al. (2015), as an extension of CoP, can also provide a potentially helpful lens for analysing the transition experience of DE students. Although the theoretical framework of CoP does have viability, "shifting focus from communities of practice to landscapes of practice highlights other modes of participation" (Fenton-O'Creevy et al., 2015a, p. 43) which aligns more closely with the reality of DE programs and participants. Students participating in DE represent learners who regularly (re)cross and negotiate multiple boundaries as a part of their multimembership identity. This requires them to be cognisant of the competence they have and consider their knowledgeability in order to be most effective in each learning context. As with other learners, they are all on a unique learning trajectory with different intended levels of engagement, as indicated in Figure 2 (see Section 3.3.4), with the various communities they are connected to.

This section has explored topics and issues related to student educational journeys and transitions. Using a sociocultural theoretical perspective, a number of themes from transition literature were explored including identity formation, knowledge transfer, boundary crossing, and orientations of transition movement which are all applicable to the transition experience of DE participants. This section concluded by establishing Beach's (1999) consequential transitions and Wenger-Trayner's et al. (2015) LoP as the theoretical frameworks which will be given special attention for this study to evaluate features of the DE transition experience.

Having examined examples of the challenges that students face during learning transitions in the previous sections, it is important to consider how students might manage their learning while in the "middle space" (Hofmann, 2012) along with responding to the increased expectation for learners to operate with greater independence (Christie et al., 2008; Quinn, 2010; Wingate, 2007). If they do not simply transfer knowledge and strategies between contexts (Beach, 1999; Bruner, 1977), and in fact need to develop new knowledge and ways of behaving for a DE context (Kubiak et al., 2015b), how can this be explained and understood? Vosniadou (2020) noted that "the self-regulation of learning is being increasingly recognized as an important factor when investigating barriers in the

transition from secondary to higher education" (p. 2), a point certainly true for DE learners in a constant state of transition. Similarly, Grolnick and Raftery-Helmer (2015) emphasised the need for considering how SRL can aid in transitions by noting that "because they entail new expectations and requirements, school transitions may involve many challenges to established routines and thus require adaptive and flexible SRL skills" (p. 253). With this perspective in mind, attention will now be given to analysing SRL as a potential framework for understanding how DE students manage their university learning.

3.4 – Self-Regulated Learning

A major focus of this study is to understand the ways students manage their learning while in a DE program; therefore, it is helpful to have a framework to explore those practices. Having previously examined the transition literature and context for DE programs and students, this section will provide a critical analysis of SRL as a potential framework for opening up the "black box" (see Section 2.2.3) to understanding how students approach and manage their university learning while participating in DE. Pintrich (1995) identified that "the idea of self-regulated learning offers an optimistic perspective on college learning" (p. 7) which is perhaps a needed counterbalance to the transition challenges experienced by learners presented in the previous sections. This section will begin by exploring social cognitive theory (SCT), which has influenced many SRL frameworks (Panadero, 2017) and provides a helpful foundation for understanding the relationship between an individual, their behaviours, and their environment. Self-regulation will be examined from that theoretical position along with its various conceptualisations and its interconnectedness with self-efficacy, which features prominently in SCT (Bandura, 1991). This will lead to a critical analysis of distinct perspectives and features of SRL, that is, self-regulation principles specific to learning contexts and situations.

3.4.1 – Foundations of Self-Regulation

Directions from Social Cognitive Theory

Many of the core attributes and assumptions of SRL can be traced back to Bandura's development of SCT (Social Cognitive Theory) in the 1970s. Bandura created SCT to incorporate personal cognitive aspects, such as forethought, self-

reactiveness, and self-reflectiveness (2006, 2018), the cornerstones for SRL models, as important features of the theory in order to demonstrate "the influential causal contribution of thought processes to human motivation, affect, and action" (1986, p. xii). Bandura was motivated to develop a perspective of learning as being socially mediated in part to address a number of the shortcomings he found with alternative frameworks. These frameworks created various dualities such as human agency and a "disembodied social structure" (2006) which separated behaviour from the environment, treating them as separate entities (1977, 2002) and viewed behaviour as primarily being caused as a response to external stimuli, placing greater agency in the environment rather than the individual (1986). Bandura's goal was to emphasise the triadic reciprocality of behaviour, personal cognition, and the environment (1986). He argued that behaviour and environments both have the potential to shape and mutually influence each other stating, "social systems are the product of human activity, and social systems, in turn, help to organize, guide, and regulate human affairs" (Bandura, 2006, p. 165). Bandura's reciprocal determinism, which rejects unidirectional causation, has been challenged as not being supported through solid conceptual arguments (Phillips & Orton, 1983). This challenge has been addressed by researchers like Zimmerman (2013) who developed SRL models (such as Figure 3 later in this section).

Some researchers have argued that SCT uses language that is too informal and exposes the theory to "interpretation errors and ambiguities" (Vancouver, 2012). However, Bandura addressed this potential ambiguity by emphasising the individual cognitive components and that these "self-regulatory mechanisms do not operate unless they are activated" (1991, p. 279), again stressing the value of individual agency. The importance of an individual's efficacy beliefs (further examined in Section 3.4.3) and sense of agency to influence their actions and control their environment, as outlined in SCT, has given researchers a theoretical lens for developing a view of self-regulation. Zimmerman (2000) clearly notes this importance by stating that "our regulatory skills, or lack thereof, are the sources of our perception of personal agency that lies at the core of our sense of self" (p. 5). Having established some of the theoretical principles of SCT, various self-regulation frameworks aligned with SCT will now be examined.

Constructs and Frameworks of Self-Regulation

Boekaerts et al. (2000) studied self-regulation and noted that as an area of inquiry it has expanded significantly and spread into multiple domains and disciplines since the 1990s. This expansion includes areas such as education, health psychology, and business, and yet self-regulation "is a very difficult construct to define theoretically as well as to operationalize empirically" (p. 4). They lamented that the topic's popularity and diversity of research areas has created a "kaleidoscope of terms" which must be negotiated and reconciled. While variations in definitions and conceptions of self-regulation exist, Zeidner et al. (2000) found consensus between researchers stating it "involves cognitive, affective, motivational and behavioral components that provide the individual with the capacity to adjust his or her actions and goals to achieve desired results in light of changing environmental conditions" (p. 751). Identifying these common components is a helpful step forward along with Zimmerman's (2000) working definition of self-regulation which "refers to self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals" (p. 14). Zimmerman also recognised the value of SCT in challenging any definition that views self-regulation as "a singular internal state, trait, or stage that is genetically endowed or personally discovered" (2000, p. 34). In other words, self-regulation is not something an individual is born with or something that is fixed; rather, it is something that can be learned and improved with practice and attention.

In the analysis of self-regulation constructs provided by Puustinen and Pulkkinen (2001), and further by Panadero (2017), there is a clear emphasis on the role of the individual. What is striking in their analysis is the lack of explicit reference to the role of the contextual variables and the environment which Bandura (1977) argued must be included and was also reinforced in the analysis of Zeidner et al. (2000). Zimmerman (2000) offers a way to work through this challenge by recognising that "no self-regulatory strategy will work equally well for all persons, and few, if any, strategies will work optimally for a person on all tasks or occasions" (p. 17). In other words, self-regulation will vary by individual, context, and activity. Zimmerman recognised that the environment influences how an individual leverages their self-regulatory skills in a context-

dependent manner by suggesting that "new performance problems can uncover limitations in existing strategies and requires additional social learning experiences" (2000, p. 31).

Goals and Motivation

Having examined various constructs of SRL, it is important to examine what practices support self-regulatory processes. Herman and Polivy (2004) noted that "self-regulation is undertaken when our normal or typical regulatory processes do not accomplish what we want" (p. 493). In other words, it is an individual's intentional thought and action to override default thinking and action to move toward a specific goal. Individuals are active agents in selecting their personal standard(s) of performance and the particular activities they desire to master (Bandura, 2001), even as their environments influence individual goals and motivational aspirations (Bandura, 1977). Identifying a specific goal has been shown to be valuable in supporting self-regulatory practices and providing a greater sense of meaning to individuals (Carver, 2004). Goals can come from internal or external sources (Wolters et al., 1996) and support internal motivation as Bandura (1991) stated, "without aspirations and evaluative involvement in activities, people remain unmotivated, bored, uncertain about their capabilities, and dependent upon momentary external stimulation for their satisfactions" (p. 273). The key point for self-regulation is to increase reliance on *internal* motivation, which the individual can directly control and maintain through activities such as self-rewards (Bandura, 1977), rather than relying on *external* motivation, such as praise or mandates from a superior, which can inhibit long term self-regulatory practices (Ryan & Deci, 2006). A person's ability to identify a goal, take action to achieve that goal, and evaluate progress toward the goal are all hallmarks of self-regulation skills; however, these are only valuable if individuals can be self-motivated to activate and leverage those skills (Zimmerman, 2000). As Mischel and Ayduk (2004) articulated, "goal commitment is a necessary but not a sufficient condition for goal attainment" (p. 106).

Where goals present the *what* of self-regulation, motivation represents the *why*. Wolters (2003) identified motivation as a highly needed but often underemphasised aspect of research studies. Pintrich's (2000b, 2004) work has

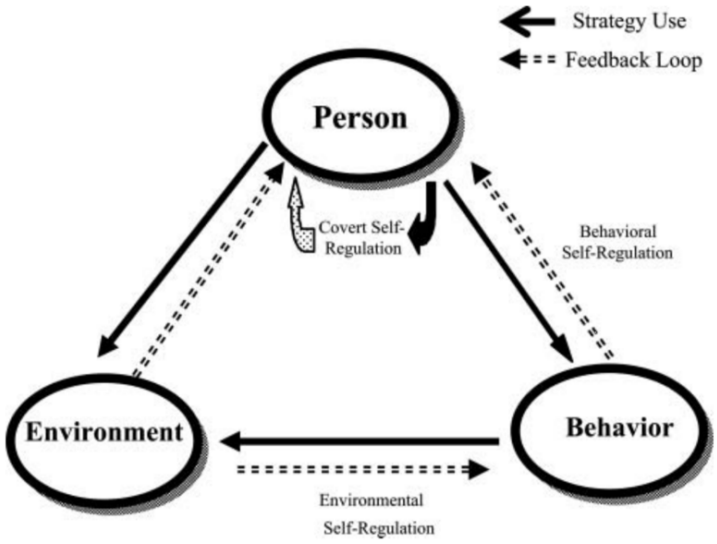
focused significantly on the integration of motivation and self-regulation. It is entirely possible for a person to create clear and attainable goals, possess effective cognitive and behavioural attributes, and still fail. If proper motivation is not present, perseverance will not follow when challenges arise. In other words, stating your goal and understanding its value are necessary steps but not ultimately sufficient. It takes intentional perseverance and effort to achieve goals, which represents the *how* of self-regulation. Effort control was defined by Rothbart and Bates (1998) as "the ability to inhibit a dominant response to perform a subdominant response" (p. 137). This definition is akin to thinking about how a person is wired or what might be called their temperament. "The self-regulation aspect of temperament is operationalized as effortful control" (Eisenberg et al., 2004, p. 260) and fits very well with the concept of self-regulation provided earlier by Herman and Polivy (2004).

Zimmerman's Conceptualisations and Models

To help conceptualise the influence of behaviour that is active in self-regulation, Zimmerman, one of the most well-known authors and researchers to create a model specifically for SRL (Puustinen & Pulkkinen, 2001), developed a Triadic Analysis model (1989). This model, seen in Figure 3, accounted for the three reciprocally influencing components found in SCT (Bandura, 1986): person (or self), behaviour, and the external environment.

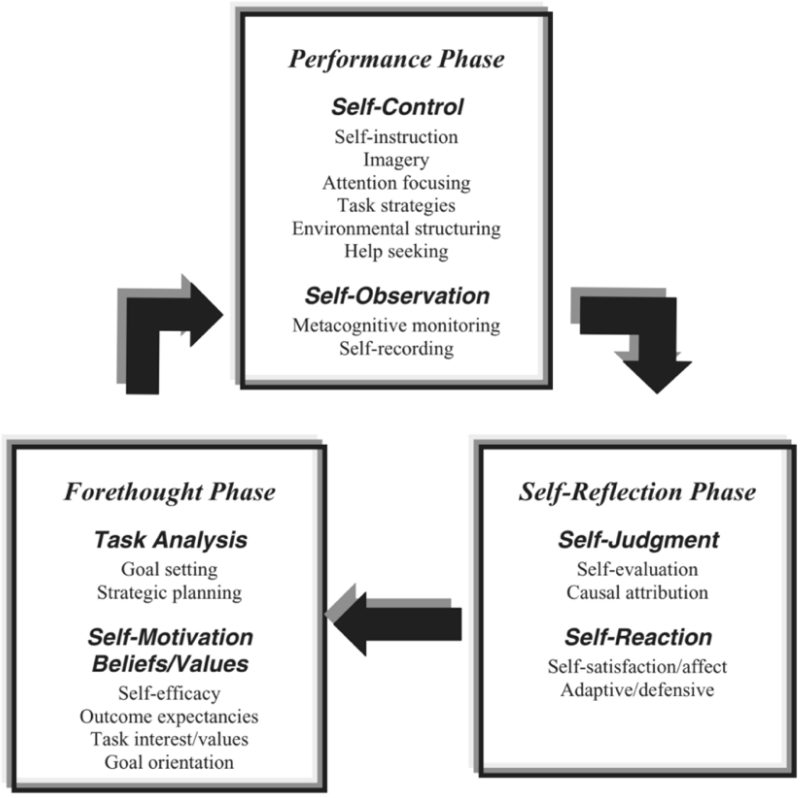
Figure 3 - Three Key Areas of Self-Regulation

From: Zimmerman (2013, p. 137)



Over time, Zimmerman expanded his initial model to account for additional features and adjusted his self-regulatory processes into a cycle of phases. The final iteration of Zimmerman's model (2013), seen in Figure 4, continued to include the key phases of forethought, performance (or volitional control), and self-reflection.

Figure 4 - Phases and Subprocesses of Self-Regulation
From: Zimmerman (2013, p. 142)



Each of these phases includes details of subprocesses to help define the activities and goals throughout the cycle (Zimmerman, 2000). Use of the word "self" indicates that the actions and activities taken are done by the individual in a proactive and intentional manner rather than in a reactive manner created by an external factor. Interestingly, this model does not explicitly show the interaction or influence from social or environmental sources which is heavily emphasised in SCT. This raises the issue of how to position this model, and the focus on the role of the individual, in relation to Zimmerman's initial model (1989) and the greater theoretical emphasis of SCT.

The Prominence of the Individual

Butler (2002) noted that early definitions of SRL focused largely on the knowledge and skills of the individual learner without much consideration for social contexts but that has changed in more recent definitions of SRL. However, in Western societies, where neoliberal agendas have taken hold and self-direction and autonomy are promoted (Vassallo, 2013b), there is still a strong emphasis on the individual. This thinking can minimise or discount the influence of social and environmental factors. To help challenge these biases and recognise the role of socially-mediated action, Jackson et al. (2000) recommend the more communal term *self-in-social-setting regulation* where "individual behaviours are recognized as nested within a wider collectivist context" (p. 276). They warn against the "myth of individualism" and that many premises of self-regulation controls are an illusion without recognising the important influence of social processes on individual processes. This was demonstrated when Jackson et al. (2000) looked at conditions where people may have capabilities to achieve self-regulation but external circumstances prevented them from exercising that power, particularly in groups of ethnic minorities or the poor.

Concerning individualism more broadly, and autonomy more specifically, Ryan and Deci (2006) challenge the logical conclusion that SCT requires all action to be influenced by the external environment, thus eliminating the role of an individual's autonomy. Their definition of an autonomous act is one that is "endorsed by the self, fully identified with and 'owned'" (p. 1561). This act can be in response to environmental and social factors, instead of being entirely independent from the external environment, as SCT claims an autonomous action would be. In other words, they suggest that "people's autonomy lies not in being independent causes but in exercising their capacity to reflectively endorse or reject prompted actions" (p. 1574). Therefore, it is still the individual who is exercising agency and control within the influence of social and environmental forces.

I have already established the call for today's learners to be independent (see Section 3.2.2). There is a distinguishable difference between being an

independent or autonomous learner and a self-regulated learner. Papamitsiou and Economides (2019) provide helpful clarity on this distinction by suggesting that an autonomous learner decides *what* will be learned while a self-regulated learner determines *how* learning will take place, specifically by following a process of various steps and strategies to complete a learning goal or task. While there are certainly points of overlap between the two concepts, including active engagement and responsibility, they have distinct and unique conceptual orientations. From this point, the next section will focus on the growing collection of research on self-regulation used in academic settings.

3.4.2 – Self-Regulation and Learning

As a core concept, SRL has received increasing attention from researchers interested in learner success since it was first introduced in the early 1980s. The conclusion of most research is that students who effectively use SRL strategies achieve improvements to their learning (Vosniadou, 2020) and obtain better outcomes (Verstege et al., 2019). Just as self-regulation covers a variety of areas of focus, SRL is also broad in that it can include emotional, motivational, behavioural, cognitive, and metacognitive components. Because of this breadth, different researchers have prioritised and emphasised different features within their approach to better understand this phenomenon. Accordingly, various models have emerged in an attempt to articulate and formalise the processes and perceived structures in which SRL occurs. While Zimmerman and Pintrich are the two most well-known and often-cited SRL researchers (Panadero, 2017; Puustinen & Pulkkinen, 2001), other authors have also undertaken research to understand SRL and have contributed to the field (see Boekaerts & Cascallar, 2006; Efklides, 2011; Winne, 1996, 2011).

Jakešová and Kalenda (2015) argue that no single model is appropriate for researching SRL; instead, they claim that SRL must be considered with specific recognition of the unique learning and context being studied, similar to how Wenger-Trayner et al. (2015) would look at transitions. The critique of SRL by Jakešová and Kalenda (2015) is that these instruments do not effectively capture the needed detail to arrive at sufficient causality claims. They suggest a reconceptualisation of SRL using critical realism to address "the multidimensional and multilevel conceptions of reality…the concept of causal

mechanisms…[and] specific understanding of casual tendencies" (p. 184). They suggest that a broader understanding of SRL could be gained by linking these various tools and frameworks to compensate where one might be weak and to change the narrative of SRL from one of causation to one of tendencies.

Activity Planning, Monitoring, and Reflection

While each of the models presented have unique areas of emphasis, they also have similarities between them. As Puustinen and Pulkkinen (2001) noted, each SRL model contains three primary categories or phases: preparatory, performance, and appraisal. These closely follow the components identified by Bandura (2006, 2018) and that Zimmerman (2013) included in Figure 4 (see Section 3.4.1). The *preparatory phase* takes place first and includes analysing the tasks at hand, planning for how to complete the tasks, and creating goals. The *performance phase* follows and includes activities that will activate and monitor the allocation of resources, such as time and energy. Finally, the *appraisal phase* will give the learner the opportunity to evaluate the outcome. At this point the feedback loop can begin where individuals can use information from the appraisal phase to influence future preparatory activities, and the cycle of SRL repeats. These phases align well with Zimmerman's (2013) model presented in Figure 4, regardless of context or learner attributes. Expanding on this work, Panadero (2017) found that most models of self-regulation included areas of cognition, motivation, and emotion in their analysis along with core self-regulatory planning activities to "analyze the task, set goals, [and] plan how to reach them" (p. 3).

Pintrich (1995) identified three primary features of SRL. The first feature is that a learner is working to actively control their behaviour, motivation, and cognition. Second, that a learner is working to meet a particular goal. Third, it is the individual who is in control of regulating actions rather than an external expectation or requirement (Deci & Ryan, 2006). These features can be seen working together more clearly in Pintrich's (2000b) definition of SRL where he states "it is an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognitive, motivation, and behaviour, guided and constrained by their goals and the contextual features in the environment" (p. 453). It is through these activities

that individuals can mediate their achievement within their individualised contexts, striving to remove barriers and obstacles in order to achieve optimal learning conditions (Dembo & Seli, 2013).

Pintrich's Phases and Areas of Self-Regulation

Pintrich's work on self-regulation has focused significantly on the integration of motivation and self-regulation. Like Zimmerman, Pintrich's conceptual framework is influenced by SCT, but unlike other models which are presented as a cycle of interrelated phases, Pintrich (2004) developed a table of four phases and four areas of self-regulation. The four phases extend the three key phases identified by Zimmerman (2000). The table itself is presented as a heuristic to help other researchers and individuals. Pintrich (2004) suggested that this conceptual model should not be considered a finalised approach, but instead can serve as a blueprint for future instruments to evaluate SRL in academic settings. Table 1 shows the relationship between the "four phase by four area taxonomy of regulation" (Pintrich, 2000b, p. 472) which is a helpful framework for use in academic contexts, including learning in college settings (Pintrich, 2004).

Table 1 - Phases and Areas for Self-Regulated Learning

From: Pintrich (2004, p. 390)

Phases and relevant scales	Areas for regulation			
	Cognition	Motivation/Affect	Behavior	Context
Phase 1				
Forethought, planning, and activation	Target goal setting	Goal orientation adoption	Time and effort planning	Perceptions of task
	Prior content knowledge activation	Efficacy judgments	Planning for self-observations of behavior	Perceptions of context
	Metacognitive knowledge activation	Perceptions of task difficulty Task value activation Interest activation		
Phase 2				
Monitoring	Metacognitive awareness and monitoring of cognition	Awareness and monitoring of motivation and affect	Awareness and monitoring of effort, time use, need for help Self-observation of behavior	Monitoring changing task and context conditions
Phase 3				
Control	Selection and adaptation of cognitive strategies for learning, thinking	Selection and adaptation of strategies for managing, motivation, and affect	Increase/decrease effort	Change or renegotiate task
			Persist, give up Help-seeking behavior	Change or leave context
Phase 4				
Reaction and reflection	Cognitive judgments	Affective reactions	Choice behavior	Evaluation of task
	Attributions	Attributions		Evaluation of context
Relevant MSLQ Scales	Rehearsal	Intrinsic Goals	Effort Regulation	Peer Learning
	Elaboration Organization	Extrinsic Goals	Help-Seeking	Time/Study Environment
	Critical Thinking	Task Value	Time/Study Environment	
	Metacognition	Control Beliefs Self-Efficacy Test Anxiety		

The four areas of regulation included in Pintrich's (2004) model include cognition, motivation/affect, behaviour, and context. Cognition focuses on the intentional cognitive and metacognitive activities a learner engages in across the various phases. Learner motivation/affect includes goal orientation, self-efficacy, task value beliefs, and personal interest in completing a task (Pintrich, 2000b). Behaviour specifically looks at one's overt behaviour as compared to something that happens subconsciously. Finally, context primarily considers the physical environment, such as classrooms or learning spaces, from the perspective of a learner. These four areas of SRL are not cyclical but can "occur simultaneously with multiple interactions among the different processes and components [with] no strong assumption of a simple linear, static process" (Pintrich, 2000b, p. 456). The four phases of regulation included in Pintrich's (2004) model include planning, monitoring, control, and reflection. It is worth noting a functional distinction between Pintrich's *phases* and *areas* of regulation. Unlike the four areas of SRL, each of the four phases of SRL tend to follow a "general time-ordered sequence that individuals would go through as they perform a task" (Pintrich, 2000b, p. 455). This linear approach becomes a cycle of self-regulation as a learner approaches, participates in, and completes tasks and activities. The information gained during the final phase of reflection is used to help shape, guide, and influence the initial planning phase of new tasks. Pintrich (2004) noted that much of the empirical research has found little separation between the monitoring and control phases as they are actually experienced by individuals. This brings the phases outlined by Pintrich into closer alignment with other models, including Zimmerman's (2013).

Learner Goals, Motivation, and Effort

In order for learners to be effective self-regulators, it is important to connect the concepts of goals, motivation, and effort (as outlined in Section 3.4.1) with the areas of planning, monitoring, and reflecting that were previously discussed. Goals and motivation are relevant to all phases in Pintrich's (2004) framework. Creating a goal establishes a standard for performance and achievement which can be measured. Nilson (2013) promotes the value of goals by stating the first step of SRL is to identify goals. This can be difficult for some learners, especially those facing additional challenges while in a state of transition (see Section 3.2 & 3.3), and may result in establishing minimal or low-quality goals (Schunk &

Zimmerman, 1998). On the other hand, if goals are set unrealistically high, students may become hopeless in the face of failure (Zimmerman & Paulsen, 1995) which can negatively impact their emotional state (Garcia, 1995) and their sense of self-efficacy (see Section 3.4.3). Baumeister and Vohs (2004) effectively summarise the connection of goals to action and evaluation by recognising, "self-regulation cannot succeed unless it is successful both at monitoring the state in relation to the goal and at making the changes and adjustments as desired" (p. 2). That is where the need for effective evaluative measure enters, either from external sources or from internal standards.

Having a goal is important, but does not guarantee success alone (as outlined in Section 3.4.1). Goals provide the target which can fuel motivation for learners. Many students may pursue the same goal but their motivational regulation in achieving that goal might vary greatly. Wolters's (2003) research found that students with greater use of motivational regulation strategies demonstrated greater persistence and effort and were more likely to get better grades than students with lower or no motivational regulation strategies. Additionally, Dembo and Seli (2013) explored various motivational self-regulatory techniques and found that goal setting, the use of self-talk, implementing self-administered rewards and punishments were effective supports and all require some level of effort.

A student's ability to initiate and sustain effort has been shown to influence their ability to achieve goals (Pintrich, 1995). The topic of exercising effort is most relevant to Pintrich's second and third stages (see Table 1 in this section), but it is applicable to all stages. For example, within a physical learning context, Dembo and Seli (2013) suggest that when needed, "successful learners restructure their physical and social environment to improve their learning" (p. 284). Effort can also be manifested by seeking help when needed, but might be avoided for a fear of the impression that they are incapable of performing adequately (Karabenick & Dembo, 2011). Remaining focused and delaying gratification has been found to be "highly correlated with students' reported regulation and control of their time and study environment and effort regulation" (Bembenutty, 2011b, p. 59). Effectively controlling time is another form of effort regulation and can be increasingly problematic for students as

they move into higher levels of schooling (Dembo & Seli, 2013), perhaps additionally so for DE students in transition. These concepts of SRL have been supported in studies advocating for students to become more independent learners (Vosniadou, 2020) and to take a more active role in their learning by enhancing their abilities to plan, set goals, self-monitor, and self-evaluate (Wingate, 2007). This is particularly true as they advance in age and ultimately transition into higher education (see Section 3.2.1), which is highly relevant for the DE context.

Another important dimension of SRL is how self-efficacy beliefs impact the learning process. Schunk and Ertmer (2000) found self-efficacy beliefs to be in operation throughout all phases of self-regulation and that "effective self-regulation depends on students developing a sense of self-efficacy for learning and performing well" (p. 632). The next section will examine the role self-efficacy plays in supporting SRL.

3.4.3 – Self-Efficacy Beliefs

Stephen et al. (2020) noted that "salient to any discussion about self-regulation is the concept of self-efficacy" (p. 308). Self-efficacy refers to the beliefs an individual has about their own "capabilities to organize and implement actions necessary to attain designated performance of skill for specific tasks" (Zimmerman, 2000, p. 14) and has relevancy to a number of applications including the use of cognitive, social, and behavioural skills (Bandura, 1986). An individual's beliefs about their ability to self-regulate are critical as these efficacy beliefs are core to the actualisation of human agency (Bandura, 2001, 2006) and human functioning (Bandura, 2002). These beliefs vary across domains and have been shown to be task specific (Bandura, 2012). While not disagreeing with task or domain-specific self-efficacy beliefs, Jackson et al. (2012) find Bandura's aversion to more generalised self-efficacy beliefs a gap and potential issue in SCT. They suggest there could be value in considering the role of personality traits as a potential mediator with self-efficacy and testing "whether broad constructs (traits) cause more narrow levels of effect (self-efficacy)" (p. 749).

Similar to the work of Vygotsky (1978) and others (see Section 3.3), Bandura (2001) argues that an individual "operates within a broad network of sociostructural influences" (p. 1). For example, Bates and Khasawneh (2007) noted examples of sociostructural influences on a learner's self-efficacy judgements such as "students' previous success with online learning technology, instructor feedback, anxiety…and the perceived nature of online technology ability" (p. 188). These sociostructural influences can drive an individual's self-efficacy beliefs about a particular behaviour along with anticipated outcome expectations from successfully completing the action. Further, in his extensive study of self-efficacy, Bandura (1991) found that an individual's efficacy beliefs are influenced by the results of past performances and will shape one's perception of their ability, motivation to perform that action in the future, and the standard(s) that future performances will be measured against. Additionally, Bandura et al. (2003) warned that "it is one thing to possess self-regulatory skills but another to be able to adhere to them in taxing and perturbing situations" (p. 770) which is when strong self-efficacy beliefs are needed most.

The topic of self-efficacy in the area of student academic performance and success has been studied in various contexts (Ramos & Hayward, 2018; Vogel & Human-Vogel, 2016). Zimmerman (2000) noted how regulatory processes associated with the use of academic learning strategies, managing one's time, and staying focused by resisting peer pressure are causally influenced by one's "self-regulatory efficacy beliefs" (p. 18). In other words, the self-efficacy beliefs of an individual enable the successful activation and ongoing utilisation of self-regulatory processes. For example, in a study of over 400 older adolescents, Bandura et al. (2003) found that a strong sense of self-efficacy enabled learners to "take charge of one's academic activities" and to "ward off peer pressures for transgressive behavior" (p. 777). Similarly, Zimmerman and Bandura (1994) found that self-regulatory efficacy beliefs played a key role in writing quality and attainment in college freshman. Across various ages and settings, from children in grade school to college students, self-efficacy beliefs have been shown to have a significant impact on academic performance and on a learner's ability to leverage their intellectual skills, making it a stronger predictor of academic success than merely acquiring academic skills (Bandura, 1997). However, studies have also shown that there is not always a direct

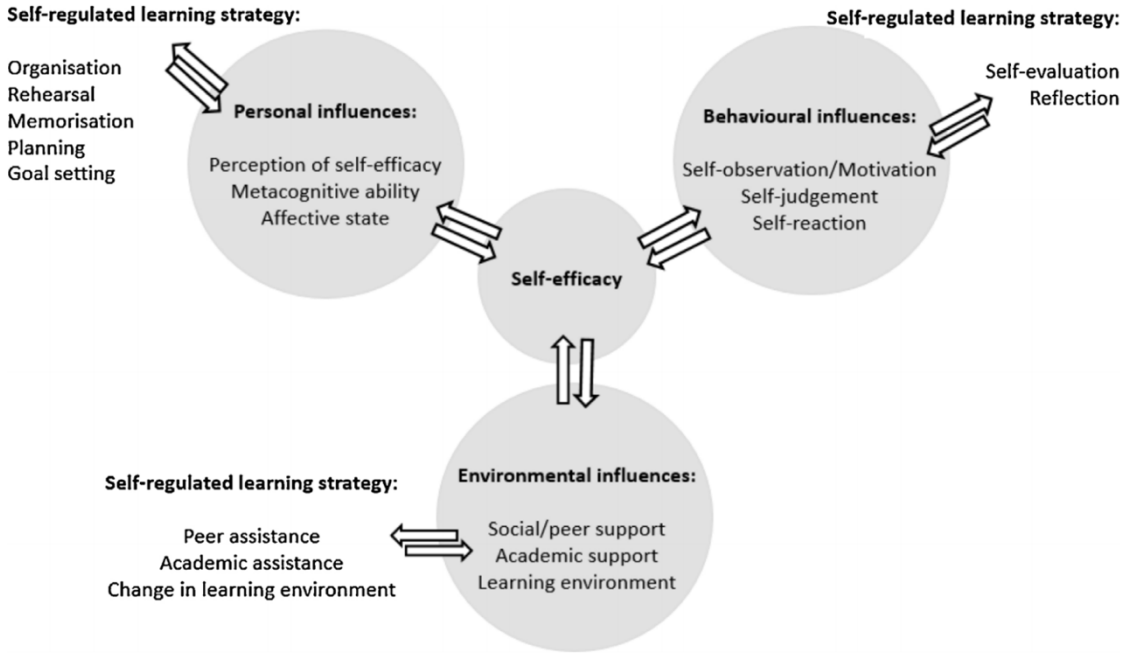
alignment between self-efficacy levels and performance levels (Talsma et al., 2019). For example, students can be effective in the use of SRL practices but still have low levels of self-efficacy (Swafford, 2018); can have low levels of self-regulation skills with "average" self-efficacy levels (Ozan et al., 2012); and can have relatively high levels of both with increasing levels as students advanced in school (Zimmerman & Martinez-Pons, 1990).

Even with high levels of motivation to complete a task, if a learner does not have strong self-efficacy beliefs, they may struggle finding success (Marsh et al., 2019) and experience heightened levels of anxiety in their attempts (Cleveland-Innes & Campbell, 2012). As Bandura (1993) aptly stated, "self-regulatory skills will not contribute much if students cannot get themselves to apply them persistently in the face of difficulties, stressors, and competing attractions" (p. 136). Bembenutty (2011b) found that "self-efficacy influences the time students spend on tasks, the amount of effort, the quality of work, and the perceptions of success and completion" (p. 57) which is helpful in any situation and particularly when circumstances and conditions become challenging. However, Bandura warned about the potential for self-deception that can come from improperly high self-efficacy beliefs, particularly those originating from socially-informed sources (1997) and to avoid faulty self-efficacy judgements which can lead to failure, especially in new or uncertain situations (1986). Schunk and Ertmer (2000) echo this by stating "high self-efficacy will not produce skilful self-regulation among students who lack knowledge of skills or believe that self-regulation is not beneficial" (p. 643). These beliefs are highly contextualised and play an important role in supporting learner success. For learners entering a new environment, such as when DE students enter postsecondary or online settings, where mastery perceptions and outcome expectancy may be challenged (Bates & Khasawneh, 2007), strong self-efficacy beliefs are critical to persistence (Stephen et al., 2020), maintaining motivation (Abdous, 2019), as well as academic success and satisfaction (Shen et al., 2013).

The importance of self-efficacy amongst self-regulation researchers is consistent; however, Zeidner et al. (2000) found that there is not consensus on the specific relationship between self-efficacy and the self-regulatory framework. Some researchers hold that self-efficacy is crucial for self-regulation

processes while others recognise its relevance but don't emphasise it (Panadero, 2017). Figure 5 provides a way to conceptualise how self-efficacy can be the mediator and enabler of other SRL actions from a social cognitive perspective developed by Zimmerman (2000). In this conceptualisation, self-efficacy is at the centre of various SRL processes because of the level of influence it has, either positively or negatively, on enabling and sustaining these practices. Bandura would agree with the central relevance of self-efficacy in enabling learning and action (Pritchard et al., 2010).

Figure 5 - Zimmerman's Social-Cognitive View of Self-Regulated Learning
From: Goradia and Bugarcic (2017, p. 6)



While there are many examples of how SRL and self-efficacy are helpful, as shown in the previous sections, there are also challenges that must be considered.

3.4.4 – Challenges with Self-Regulated Learning

As mentioned in Section 3.4.1, attention given to SRL has grown in the breadth of what is covered as well as the number of models attempting to conceptualise its use. Pintrich (2000a) identified several challenges with studying self-regulation including the lack of a consistent framework, set of components, and limited consistency between researchers. Similarly, concerns about the use of

broad definitions, a lack of distinctiveness in identifying elements such as specific events or processes of SRL, and effectiveness of reporting measures have been expressed elsewhere (Butler, 2002; Rovers et al., 2019; Zeidner, 2019).

Bembenutty (2011c) suggested that one challenge for students, particularly "naïve learners" who are not effective self-regulators, is that they tend to have a "psychophysical dualism" view that separates the connection between their mind and body. With this view, an individual thinks in binary terms that they either are or are not self-regulators, or that they are or are not self-efficacious. This line of thinking is not only problematic, it is wrong. Research has shown that SRL strategies can be taught, practiced, and improved by learners (Sahranavard et al., 2018; Zimmerman & Paulsen, 1995). These points must not be underappreciated given how students tend to stick with the strategies they know, even when they know that their current strategies might not be optimal for their current task or context (Schunk & Zimmerman, 1998). In order for SRL skills to be taught, instructors must be familiar with these strategies and promote them in the classroom, which requires a shift from only delivering the course subject matter (Vosniadou, 2020). Embedding SRL strategies into curriculum has been proposed to be more effective than distinctly teaching generic strategies which are decontextualised and do not allow for practice within subject matter curriculum (Randi & Corno, 2000). However, Schunk and Ertmer (2000) correctly raise concerns with this approach and the transferability of skills to different disciplines which is an issue that Beach (1999) and others have also raised (see Sections 3.3.2 & 3.3.3).

Another challenge to SRL comes from Vassallo (2013b) who is concerned with the "ethical complexities" presented in teaching SRL and the strong neoliberal overtones embedded in advocating for learners to engage in SRL behaviours and ways of thinking. He specifically sees that teaching SRL is "prescriptive because there are homogenized and preformulated ways of being, knowing, and doing" (p. 568) which are designed to leave individuals with a narrower conception of personhood and "culturally and ideologically specific ways to be, think, and act" (p. 571). Vassallo (2013a) also raised the issue of class-based values and how SRL presumes individuals have certain capacities, dispositions, and resources

available. There tend to be assumptions about the availability of support and social networks aligned with middle-class contexts and cultures. This corroborates the role of social environments in supporting the development of self-regulation capabilities noted by Trawich and Corno (1995). Hadwin (2013) suggested that a by-product of children growing up in middle-class homes may result in them being poorly equipped to self-regulate when entering college. This can occur when parents in middle-class homes regulate conditions for their children creating an external reliance on others for regulation assistance (Jackson et al., 2000). Ultimately, Vassallo (2013a) suggests that greater attention be given to the "ethical and class-based complexities related to SRL pedagogy" (p. 210) to better account for the less advantaged population of learners.

Despite these challenges and limitations, SRL can still be helpful for considering how students manage their learning in the complex environment of DE (see Section 3.2). Through research by Zimmerman (1989, 2000, 2013), Pintrich (1995, 2000a, 2004), and others (see Section 3.4.2), SRL frameworks have been shown to assist and support student learning, and therefore warrant consideration for this study.

3.4.5 – Frameworks of Zimmerman and Pintrich

As mentioned earlier, Zimmerman and Pintrich are the two most prominent SRL researchers (see Section 3.4.2) at this time. Although other models could have been used in this study, the main principles of interest are most effectively expressed in their models. These areas include planning, monitoring/controlling, and reflection. Zimmerman's (2013) model provides an opportunity to consider the phases of self-regulation through a cyclical perspective while Pintrich's (2004) conceptualisation presents a taxonomy. These complementary views can provide a more comprehensive perspective on the activity of DE students. As both models are influenced by SCT (Bandura, 1986, 1991; Panadero, 2017), there is theoretical congruency in their attention of both personal and environmental factors.

3.5 – Self-Regulated Learning in the Dual Enrolment Context

This chapter will conclude by examining conditions for SRL within the context of DE that address the expectations of learners entering into PSLEs and participating in online learning environments.

As discussed in Section 3.2, DE students face unique challenges in their transition experience. As students advance through various grades and educational settings there is an expectation that they are able to take greater control of their learning (Weinstein et al., 2011) and become more self-directed as they acquire, learn, and use enhanced cognitive strategies (Zimmerman, 2000). Students who can do this are "more likely to achieve at a higher level" (Dembo & Seli, 2013, p. 19); however, not all students develop abilities equally to support their self-regulation or consistently use their knowledge and cognitive skills (Bandura, 1997). This demonstrates some of the challenges with understanding how SRL works during a transitional situation, like participating in DE. Pintrich (1995) argued that given the increasing requirements for postsecondary students to manage their own learning and time, "research on SRL may be more relevant to college students than to K-12 students" (p. 8).

At the time of this writing, only one published study was found specifically related to SRL and DE students (Swafford, 2018). This study, from Eastern New Mexico University, examined the "relationship between learner motivation and SRL within secondary students in an online dual enrollment agriculture course" (p. 95). The study used self-determination theory as a framework and the Online Self-Regulated Learning Questionnaire developed by Barnard et al. (2009) to collect data from 130 students. The study found that DE students scored high in goal setting and extrinsic motivation (related to highly valuing tasks), and relatively low levels of self-efficacy which is likely attributed to minimal experience learning in an online environment. The reliance on external motivation is concerning from a SRL perspective which seeks to maximise internal motivation (Ryan & Deci, 2006). The lack of additional empirical research speaks to the need to further explore and understand how SRL may be used by DE students in managing their academic experiences. For now, it is helpful to examine the constituent elements of the DE experience such as the

impact of postsecondary expectations and the challenge of navigating online learning.

3.5.1 – Postsecondary Expectations

In SLEs, learning is heavily directed by teachers (Dembo & Seli, 2013) who control what happens and when, giving students fewer opportunities for self-regulation (Schunk & Ertmer, 2000). This results in the challenge that Bembenutty (2011a) noted where "many students arrive at college and universities lacking basic self-regulatory skills" (p. 6). Institutions and instructors have expectations that students entering into higher education contexts will already have SRL skills such as being proactive and self-disciplined (Bembenutty, 2011a), are able to self-monitor and self-motivate (Dembo & Seli, 2013), take responsibility for their own learning (Weinstein et al., 2011), and are capable of using "adaptive help seeking" (Karabenick & Dembo, 2011). Using adaptive help seeking requires students to identify what they do not know (Zimmerman, 2013) and also know how to pursue and access help when needed (Pintrich, 2004). Without the ability to use SRL strategies, students will find themselves in a disadvantaged position (Zimmerman & Paulsen, 1995). For example, undergraduate students with lower levels of self-motivation and self-regulation have been shown to have higher dependencies on their external learning environment for their academic performance and grade achievement (Ning & Downing, 2012). Fortunately, SRL skills can be practiced and improved (Sahranavard et al., 2018; Zimmerman, 2008).

There is evidence of success with the use of SRL by students in the early stages of their university experience. Bruijn-Smolders (2017) researched the impact on academic performance that SRL practices had with college freshmen in the Netherlands. Her study found a positive correlation between the use of metacognitive strategies and academic performance. Goradia and Bugarcic (2017) noted the connection of increased academic outcomes and SRL "strategies that focused on optimizing higher-order personal regulation together with social or peer behavioral influences" (p.5). This is needed in the less structured environment of DE. Even when the PSLE creates a more controlled context, "the learner regulates her behavior and decides the degree up to which she follows the subsequent steps available to her according to the specific

guidelines and/or requirements of the learning context" (Papamitsiou & Economides, 2019, p. 3151). This is especially helpful for students in online learning environments, which may be considered a more controlled environment.

3.5.2 – Navigating Online Learning

Studies have shown that students face various challenges when learning online including a lack of motivation (Karkar-Esperat, 2018), lack of discipline (Stocker, 2018), and issues with procrastination and time management (Rasheed et al., 2020). These are all aspects relevant to SRL (Pintrich, 2004; Wolters, 2003). If not addressed, these challenges can result in lower satisfaction, course grades, and persistence (Stephen et al., 2020). Additionally, online learners may not know how to access help in an online environment which can create barriers to their progress (Broadbent, 2017). Alternatively, Pedrotti and Nistor (2019) found that online learners who maintain effective time management practices and effort control, examples of active and intentional SRL practices (Badura, 1991; Zimmerman, 2000), have been shown to increase their academic achievement in online environments. Lee and Tsai (2011) noted that online learning can be a "double-edged sword" for some students due to the increased levels of autonomy and flexibility. Internet-enabled learning opportunities have expanded the types of competencies and knowledgeability learners need to be successful (see Section 3.3.2), including greater skills and awareness to support self-directed learning (Bandura, 1993). However, "online students are often unprepared for a range of e-learning competencies" (Abdous, 2019, p. 42) that they will be required to have. The need for online learners to have SRL skills is critical (Broadbent & Poon, 2015) and has been identified by Lee et al. (2020) "as a vital factor in positively influencing learners' success in online learning environments" (p.25). Similarly, Stephen et al. (2020) found that "self-regulation, self-efficacy, and self-directedness have all been correlated with online learners' success and persistence" (p. 309).

When learning online, Shen et al. (2013) noted that student self-efficacy was multidimensional and can be related to technology, learning, and social interactions. These are examples of what Bandura (2012) would call activity-dependent self-efficacy beliefs. Green et al. (2011) warned that as students

transition to learning online, “even efficacious students may experience decreases in their self-efficacy” (p. 111) due to the need to negotiate different experiences (see Section 3.3.3) of the new environment (Bandura, 1986). This reality is especially true for students without prior online learning experience (Zimmerman & Kulikowich, 2016). While past online learning success has been shown to positively influence self-efficacy (Lee & Tsai, 2011; Wisneski & Ozogul, 2019) and reduce anxiety (Abdous, 2019), it can also negatively shape self-confidence in future online courses if a learner was unsuccessful (Schulze & Scholz, 2018). Without positive self-efficacy views (Bandura, 1997), a student will be limited in their ability to leverage and maximize the value of SRL practices (see Section 3.4.3).

As I have shown, “self-regulation of learning occupies a fundamental place in postsecondary education” (Bembenutty, 2011a, p.3) regardless of the modality. The ability to manage an environment, set goals, make a plan, monitor performance, and reflect on areas of accomplishment and those needing improvement are all SRL practices (Pintrich, 2004; Zimmerman, 2013) that support a learner’s success in postsecondary and online environments (Verstege et al., 2019; Vosniadou, 2020).

3.6 – Summary

This chapter began by providing an analysis of the transition context for dual enrolment students with special recognition of the factors DE students experience by both moving into PSLEs and also adjusting learning modalities into an online environment. This section was followed by a critical review of literature and research related to various theories and conceptualisations of learner transitions from a sociocultural theoretical perspective. There are numerous attributes relevant to the transition experience of DE students including identity formation, knowledge transfer, boundary crossing, and orientations of transition movements DE students may experience. All of these features can impact the experience of learners. This section closed by identifying consequential transitions (Beach, 1999) and landscapes of practice (Wenger-Trayner et al., 2015) as theoretical frameworks which will be given special attention for examining the transition experience of DE students. This provides the basis for the study’s first research question:

1. What are the principal challenges encountered by one group of dual enrolment students in Minnesota, U.S. during the secondary school to university transition experience?

The chapter then examined self-regulated learning from a social cognitive theoretical perspective to help situate the study's second research question. The foundational underpinnings of social cognitive theory were analysed and connected with self-regulation generally and learning applications specifically. While the general principles of SRL are fairly consistent, the conceptual models developed by Zimmerman (2013) and Pintrich (2004) were selected as the primary frameworks to support this study. Several challenges with SRL were noted including a lack of a consistent framework, learner perceptions about being able to self-regulate, and several ethical complexities embedded in SRL. Drawing from SCT, the relevance of self-efficacy beliefs were also examined for their role in supporting and influencing SRL practices. The final section of this chapter concluded by returning to an examination of the DE landscape, this time through the lens of SRL and expectations of learning in postsecondary and online contexts. This provides the basis for the study's second research question:

2. How can self-regulated learning help enhance our understanding about the way a group of dual enrolment students managed their university learning?

Given the diverse characteristics of DE programs, the realities and challenges present during transitional experiences, and the capabilities of SRL to support learners, I have shown the relevance of the primary research questions which emerged from this chapter. The primary theoretical frameworks for the study identified in this chapter will provide a helpful interpretative lens to analyse the research findings presented in Chapters 5 and 6.

CHAPTER 4 – METHODOLOGY

4.1 – Introduction

This chapter will detail the approach used to select and design a method to support the aims of this research study. After outlining the paradigms and research assumptions framing the study, a review of the research design including rationale for that design will be presented. This will be followed by an outline of the approach used for participant sampling and various ethical considerations that factor into this study. The process for data collection and analysis will be provided along with identified limitations of the methodology used. The chapter will close with a reflection on the research process.

4.2 – Research Paradigm

4.2.1 – Approach Overview

The purpose of this study is to investigate the transition experiences of a group of students and how they managed their postsecondary learning while participating in a dual enrolment (DE) program. Before looking at the specific methodological components of the study, it is appropriate to first explain the theoretical positions that informed the design decisions. As Wolcott (2006) notes, "theory should facilitate the inquiry process" (p.78). The inquiry process of every researcher must contend with areas such as what is real, what can be known, and value judgments assigned to what is real and knowable (Schwandt et al., 2007). An interpretivist paradigm, using a single case study approach (Gustafsson, 2017) and qualitative methods (Merriam, 1988), was used in this study to guide the inquiry process (Guba & Lincoln, 1994). An interpretivist paradigm provides an opportunity to more fully understand the participants' "world of human experience" (Cohen et al., 2018, p. 19). Because of the multitude and complexity of factors that can influence a student's academic experience, it is necessary to use a research approach that is not rigid and can leave the door open to a full exploration and discovery of these potential factors (Thanh & Thanh, 2015). Qualitative research methods are best suited to address research questions (Mackenzie & Knipe, 2006) when new and perhaps unexpected findings could be discovered through direct engagement with research participants (Cohen & Crabtree, 2006b). A qualitative approach will allow for a richer explanation of the transition experiences of students in DE and

the way they manage their academic coursework and will enhance the meaning of their responses in this study (Braun & Clark, 2013).

4.2.2 – Paradigm Rationale

Although different understandings and interpretations of paradigms exist (Thanh & Thanh, 2015), and these differences should be respected (Guba & Lincoln, 1994), there can come a point where divisions between paradigms become unproductive (Lub, 2015) and limiting. It is my belief that through directly engaging with research subjects, their world and experiences can be shared and understood. Stake (2010) notes that the "world we know is a particularly human construction" (p. 99). I believe that by directly engaging with DE students, I can begin to understand their constructed world and produce an account of their real experiences. These experiences, once revealed, can begin to provide a representation of the collective reality of other DE students (Schwandt et al., 2007). Therefore, it is my position that understanding the authoritative knowledge provided directly from a student's lived experience (McIntosh & Morse, 2015) is the most appropriate approach to uncovering the fullest reality of their experiences in this context.

An interpretivist paradigm allows me to rely on my research participants to understand their socially constructed world (Mackenzie & Knipe, 2006). Following the path of an interpretivist paradigm, a case study approach (Cohen et al., 2018) was determined to be helpful for this study. Case studies offer a "means of investigating complex social units consisting of multiple variables of potential importance in understanding the phenomenon" (Merriam, 1988, p. 32). Although case studies can be described in different ways (Baškarada, 2014; Merriam, 1988), the term "case" has been defined as "a spatially delimited phenomenon (a unit) observed at a single point in time…that an inference attempts to explain" (Gerring, 2007, p. 19). Generally, case studies can "deepen understanding in real contexts" (Hamilton & Corbett-Whittier, 2013a, p. 6) and can be illustrative in purpose (Gerring, 2004). This study used a single case approach (Yin, 2003) and established as its boundary of focus (Merriam, 1998) a single university's DE program and group of students and instructors. It did not explore other universities, age levels, or contexts as those would have been prohibitively time-consuming (Baxter & Jack, 2008).

The aims of the study are to more fully understand the experiences and behaviour patterns of a group of student participants found in a distinct context (Cohen & Crabtree, 2006c). In particular, this was intended to be an instrumental case study (Creswell, 2017a) as it seeks to better understand the transition experiences of a group of DE students as they navigate different contexts between high school and one university. Case studies are "one of the most frequently used qualitative research methodologies" (Yazan, 2015, p. 134) and have been shown to be effective in seeking "to engender understanding that can improve practice" (Ponelis, 2015, p. 536), or what Loh (2013) would call having "utility" for others. This is not to mean broad generalisations or claims to other groups or settings are intended, or even possible (Gustafsson, 2017); rather, that the "context-dependent knowledge" produced will be "more valuable than the vain search for predictive theories and universals" (Flyvbjerg, 2006, p. 224). The value of this knowledge is the potential to inform practice and theory development (Flyvbjerg, 2006), gain insights (Gerring, 2007), provide a heuristic or working hypothesis into this subject area (Merriam, 1988), and to "stimulate further investigation" (Mackenzie & Knipe, 2006, p. 228).

Schrag (1992) makes a compelling case that the "positivist paradigm is hard to avoid" (p. 6), even in social sciences, since most educational research intends to try to explain or improve practice. A positivist paradigm would not be a congruent paradigm for this study given the ontological and epistemological positions found in positivism (Guba & Lincoln, 1994; Mackenzie & Knipe, 2006; Schwandt et al., 2007). Positivism seeks to find single correct answers or solutions (Thanh & Thanh, 2015), looks for absolute claims (Creswell, 2017b), attempts to identify an objective reality (Cohen & Crabtree, 2006a), and tends to exclude values (Guba & Lincoln, 1994) while minimising and dismissing "the importance of individual's subjective experiences" (Park et al., 2020, p. 692). I acknowledge the value of a positivist paradigm but feel those approaches, namely quantitative methods, along with the aforementioned positions and priorities would have been limiting to this study (Guba & Lincoln, 1994; Park et al., 2020). Rather, an interpretivist paradigm and qualitative methods were used to more fully access and understand the realities of a particular group of students within a particular context (Cohen & Crabtree, 2006b).

Fumerton (2006) remarked on the nature of truth by noting "it seems that most of the truths we know we know only because we are in a position to infer those truths from other propositions we know" (p.38). In this case, the propositions of both the participants in the study and of the researcher must be acknowledged as they shape the way information is shared and interpreted. Walker (1980) identified a similar challenge for researchers involved in case studies where the evaluation of reality is shaped by their experience which can mean "what *seems* to be true is more important than what *is* true" (p. 45) for a researcher. I believe there needs to be an appreciation and allowance for exploring the multiple realities (Guba & Lincoln, 1982) of participants which are socially constructed (Schwandt et al., 2007). An interpretivist paradigm can be considered constructivist from an ontological position (Goldkuhl, 2012) in the sense that diverse experiences, practices, and interpretations form reality for the participants of the study.

This naturally connects with the point of epistemology, as Steenberghen (1952) notes, "the starting point of ontology coincides perfectly with the starting point of epistemology" (p. 39). A question, and challenge, for any researcher is to wrestle with what can be known. I hold the epistemological position that the main research questions for this study can be explored and understood through direct interactions with participants who are willing to share their stories and will do so in an open and accurate manner. In this way, the researcher and participants share a role in influencing and learning together through the research process (Schwandt et al., 2007). Participant stories and experiences will create the foundation for the research findings presented in Chapters 5 and 6. Reality is not what I, as a researcher, wish to make it out to be, but in this case is governed by the experiences of students who have participated in the DE program (McIntosh & Morse, 2015). It is for this reason that appropriate methods must be used to solicit and "discover the nature of reality" (Frondizi, 1963, p. 105) from research participants and that I, as a researcher, have an obligation to accurately represent those experiences.

When thinking of the experience of each participant and what can be considered "real," Steenberghen (1952) endorses the viewpoint that "every human

experience is necessarily an experience of being" (p.19). Each participant shared their experience based on their reality. Schwandt et al. (2007) argue that researchers should "abandon the assumption that enduring, context-free truth statements…can and should be sought" (p.17). Since all human nature is time and context bound (Guba & Lincoln, 1982; Schwandt et al., 2007), the value of a case study approach for this study is strengthened since "context-dependent knowledge and experience are…at the center of the case study as a research and teaching method" (Flyvbjerg, 2006, p. 222). If there is concern over losing any ability to formulate a cohesive framework from the various, context-bound participant responses to address the research questions at hand, Lowe (2006) suggests that "the various portrayals of different parts of reality must, if they are all to be true, fit together to make a portrait which can be true of reality as a whole" (p. 4). These references to truth claims may largely suggest a postmodern position. However, there are aspects of postmodernist thinking which, if taken to their full and literal conclusion, are limiting and not implied by this study. For example, the distinction between the local and general with prioritisation given to the voice of the individual. Instead, I would take a position similar to Beyer and Listen (1992) who recommend, "a more dialectical relationship between these things: the sense that the local can illuminate the more general, and that the global can heighten our sensitivity to the more particular" (p. 375). Beyer and Listen also recognise the danger of promoting the voice of the individual, especially those considered to be "others," at the risk of losing an ability to create "communality in discourse and action" (1992, p. 373).

Hamilton and Corbett-Whittier argue that "the case study approach to research needs to have a strong degree of flexibility" (2013a, p. 47) which was realised and exercised in this study. As noted earlier (see Section 1.2), the original area of inquiry for this study was intended to focus more exclusively on the academic experiences and approaches to managing learning, with consideration given to the use of self-regulated learning (SRL) as a potential framework (see Chapter 6). However, through direct interaction with students during the research process, the qualitative research approach revealed that transition experiences were a significant feature and warranted additional attention which required a reshaping and expansion of the study (see Chapter 5). In addition, upon analysis of the research data collected by students, it was determined that

supplementing this data with the perspectives of DE instructors would be beneficial to further augment and contextualise the findings about student experiences. Subsequently, additional interviews with instructors were added to the study.

4.2.3 – Challenges with Interpretations

Challenges to standards in qualitative research have been expressed by many researchers in an attempt to call attention to quality, rigor, and trustworthiness (Denzin, 2009; Guba & Lincoln, 1994; Johnson et al., 2020; Loh, 2013), regardless of which paradigm or "side" a researcher takes (Lub, 2015). Guba (1981) noted that the end goals associated with the scientific terms used with a rationalist paradigm should remain but that they should be translated to be more appropriate for use with a naturalist approach, as with an interpretivist paradigm and qualitative methods used in this study. These aspects of trustworthiness include: credibility, transferability, dependability, and confirmability (Guba & Lincoln, 1982). While these terms have been widely adopted, they have not gone unchallenged and some have encouraged abandoning their use with a "return to the terminology of social science (Morse, 2015). Hammersley (2007) recommends that rather than looking for a "finite set of explicit and exhaustive criteria" (p. 289), that aspects of trustworthiness can be considered helpful "guidelines" to "remind researchers of what they ought to take into account in assessing their own and others' research" (p. 289), which is an approach Loh (2013) also endorses. Acknowledging this tension, Schwandt et al. (2007) note that the criteria laid out by Guba and Lincoln are useful for "those committed to the interpretative practice of evaluation" (p. 12). Therefore, I will continue with those markers and guidelines for quality in this study.

Johnson et al. (2020) describe credibility as the researcher's work to capture and communicate "supporting evidence that the results accurately represent what was studied" (p. 141). I was able to use my own working knowledge of the university and the DE program to check against claims that were incongruent with current practices. Some of these examples include expectations for participation, the availability of support services, the role of faculty members, and events that facilitate student engagement. I also introduced triangulation

opportunities by using multiple interview methods (see Section 4.4) and by allowing member checks with participants of the study to "ensure the transcript truthfully reflects the meaning and intent of the subject's contribution" (Johnson et al., 2020, p. 142). The approach to capturing and holistically evaluating responses and related details (Loh, 2013) was done so that structural corroboration could be achieved instead of selectively taking data or providing results in a fragmented or incoherent manner (Guba, 1981). To address transferability, I attempted to collect and develop "thick description" (Morse, 2015, p. 1218) so that the context of each participant was known as far and appropriately as possible. This information, alongside the organisational structure of the university, provided a more complete picture of the situation (Guba, 1981) and can help to "determine whether the results are applicable to their or other situations" (Johnson et al., 2020, p. 141). Furthermore, the process of overlapping methods was used and described in an attempt to strengthen and undergird the stability of the study (Guba & Lincoln, 1982) and to allow for repeatability (Johnson et al., 2020). With consideration to the confirmability of the process and results, again triangulation was used to validate the data recorded. Also, by continually reflecting on the study and process, particularly through introspection (Finlay, 2002), I sought to promote awareness of the supporting information used to arrive at various interpretations (Johnson et al., 2020) in order to protect against inconsistencies and unsubstantiated claims (Guba, 1981).

4.3 – Researcher Positionality and Motivations

4.3.1 – Positionality

As an employee at the university where this study takes place, portions of my current role involve supporting the Dual Enrolment office, overseeing the development of online DE courses, and training and supporting faculty who teach dual enrolment courses. As stated in Section 1.6, I have reasons to consider myself both an insider and outsider (Merton, 1972) in relation to a study on DE students. Working in higher education since 2003, and having taught several DE courses, I was not entering the field with "blind ignorance" (Sampson, 2004) with no previous awareness or appreciation of the context or norms. The description of "researcher 'in the middle'" (Breen, 2007) seems to more accurately account for my positioning in this study. This allowed me to approach

the collection of evidence as both a novice, having not been a DE student, and also an expert with my background and experience working in higher education and the way DE operates at my university.

Denzin (2009) notes that in qualitative research, the collection of evidence can be influenced by the researcher. For example, I recognise that factors such as my gender, age, and socio-economic status influence my perspective, assumptions, and way of thinking. This influences the nature of the study and has implications for how I interact with participants, the types of questions asked, and how I conduct analysis (Jacobson & Mustafa, 2019; Shaw et al., 2020). Here, as an employee of the university, I noted a tendency to want to occasionally minimise some feedback and protect the institution from harsh criticism. In working with my dissertation supervisor, we were able to identify strands of participant feedback related to the university that needed to be highlighted. Another way my personal perspective initially influenced my interactions with participants was to assume they had a similar understanding about university operations and services available. That of course is not true which is why hearing participant voices is so important (Aluwihare-Samaranayake, 2012). This is an example of why researchers must be careful to not let their assumptions drive action or anticipate preconceived results of research findings that may be different from what is expected.

Moreover, Nyumba et al. (2018) consider different positional roles a researcher can have at different stages of a qualitative study. For example, during the semi-structured interviews, my role was closer to an investigator. I had greater control of the exchange and drove the conversation forward based on the interview. During the focus group, my role shifted to a facilitator of the discussion. My presence was intended to be more peripheral to the group and to create an environment where they could engage openly with the question prompts and each other.

4.3.2 – Motivations

In addition to reflecting on my positionality, articulating my motivations for the study is valuable as these inform, both directly and indirectly, the priorities and aims of the research. Stake (2010) noted that a research question and topic can

hold both intrinsic and instrumental value to the researcher. In the case of this particular study, both are true. As a current employee of a university that has seen DE participation significantly increase over the past decade (see Sections 1.1 & 1.2), I am personally motivated to find ways to better support their success. This includes gaining a better understanding of what factors impact the transition experience of DE students and what approaches to manage learning are used and are beneficial while in DE. To that end, the findings of this study may have instrumental value to inform and improve my own practice and to gain insights (Gerring, 2007) into ways DE students could be better supported by instructors and my university today (Flyvbjerg, 2006) and into the future. Furthermore, as a researcher with two children currently in secondary education, who are almost certainly future DE students, I possess a personal interest in supporting research related to DE for their sake. Finally, improving the success of this population of students has the potential to help strengthen the position of higher education as a sector in a time when it is facing increasing public scrutiny about sustainability (Davim & Leal Filho, 2016), quality, and access (Kariwo et al., 2014).

4.4 – Research Methods

4.4.1 – Design

Having outlined many key principles and elements of ontology and epistemology of this study, it is possible to turn to the specific design decisions used in this study. An empirical approach was selected using semi-structured interviews followed by a focus group with students to obtain a first-hand account of the participant experiences. This qualitative approach was deemed more appropriate than a quantitative approach due to the nature of the information that was being pursued. A qualitative approach, which is predominantly used with interpretivist paradigms (Thanh & Thanh, 2015), increases the ability to capture greater depth and understanding about what a person is thinking along with their "perceptions, attitudes, and values, matters which are difficult to obtain by alternative methods" (Partington, 2001, p. 32). Using qualitative methods created the possibility go beyond the research questions and follow what Cohen and Crabtree (2006d) describe as "topical trajectories" during the interview and research process to more fully understand responses. Each student brings with them unique experiences related to their academic journey.

Therefore, it is important to understand what unique characteristics exist about each student as well as what themes emerged as consistent between participants. Stake (2010) articulated the power of interviews in qualitative studies noting that the “interview is the main road to multiple realities” (p.64). The type of semi-structured interviews used in this study would be classified as “descriptive/interpretive” by McIntosh and Morse (2015) which “epistemologically privileges the participant as knower” (p. 4) with an intended outcome of more fully understanding a phenomenon. Interviews were conducted individually with each student “to ensure that the relevant contexts are brought into focus so that situated knowledge can be produced” (Mason, 2002, p. 62).

Following the completion of all semi-structured interviews, a focus group was conducted with a subset of the semi-structured interview participants to further explore themes related to the research questions. The interviews preceded the focus group to help avoid potential “respondent contamination” (Krueger, 1995, p. 526). Also, conducting the semi-structured interviews prior to the focus group allowed me to identify areas that warranted additional consideration in the focus group discussion. The focus group was designed to create an environment where students could both share their personal experiences and interact with the experiences of other students (Wilson, 1997). The interactions between the students were of particular interest in an effort to identify areas of affirmation, contradiction, overlap, or uniqueness (Cohen & Crabtree, 2006e). An important feature of the two interview approaches is the ability to triangulate responses of the participants. As Guba (1981) noted, "...no item of information ought to be accepted that cannot be verified from at least two sources" (p.85). In this way, each participant was able to increase the level of dependability against their previous responses and also cross-validate with other student responses. Wilson (1997) supports this approach noting that a focus group is often used “in conjunction with other qualitative methods such as in-depth interviews” (p. 216). The use of semi-structured interviews along with a focus group allowed themes to be explored in distinct yet complementary ways.

Later in the research process, after student interviews were completed and analysed, it was determined that gaining the perspective of instructors would be advantageous in further contextualizing student responses (Stake, 2010) and

providing additional perspectives on research conclusions and implications for practice (Mason, 2002). Subsequently, semi-structured interviews were completed with three current dual enrolment instructors to gain further insights into the experiences of student completing DE courses and their university transition experiences.

The previous section outlined the types of empirical research approaches used in this study including personal semi-structured interviews and a focus group with students along with semi-structured interviews with instructors. Following are the specific questionnaires referenced to generate the topical outline of the question sets and interview approaches.

4.4.2 – Sources

The student interview questions were significantly informed by Pintrich's (2000b) SRL phases: planning, monitoring, controlling, and reflecting. Leveraging previous studies along with validated questionnaires provided the foundation for creating the questions of this study.

The Self-Regulation Questionnaire (SRQ) developed by Brown et al. (1999) defined seven components of SRL for evaluation: receiving, evaluating, triggering, searching, formulating, implementing, and assessing. This particular questionnaire was helpful as it was the first attempt for individuals to self-report their proficiency across SRL areas and provided the foundation for future studies. This questionnaire included 63 quantitative, Likert Scale-based questions. Therefore, these questions were adjusted and synthesised for use in a qualitative study.

The Self-Regulation Formative Questionnaire (SRFQ) developed by Gaumer Erickson and Noonan (2018) was designed for students in either middle or high school settings to measure their perceived level of proficiency across various SRL areas. It was helpful because it synthesised SRL into the four categories used for this study: planning, monitoring, controlling, and evaluating. This questionnaire included 22 questions and was designed to be administered in a quantitative manner. To incorporate the relevant features of this questionnaire into this study, the main categories of SRL remained the same (i.e., planning, monitoring,

controlling, and reflecting) but the questions were modified and combined to fit a qualitative context.

The Self-Regulated Online Learning Questionnaire (SOL-Q) developed by Jansen et al. (2016) was developed to inspect aspects of SRL in participants of MOOCs (Massive Open Online Courses). It was a helpful resource for this study because it provided a set of questions appropriate for online learners which were distilled from four existing questionnaires. The questions in this questionnaire were categorised around common SRL phases: preparatory, performance, and appraisal. Although these phases are not a direct match to the four areas used in this study, there was sufficient congruity to enable a high level of transferability, such as between the SRL models of Zimmerman (2013) and Pintrich (2004). This questionnaire included 36 questions and was designed for a quantitative study so the questions were also modified for use in a qualitative study.

These examples provided a rich starting point for creating the questions used in the semi-structured interviews as visualised in the Figure 6 (in the next section). Appendix 3 shows a sample of how questions were tagged and consolidated. Colouring was used to identify similar areas of inquiry across surveys for consideration in the final question set.

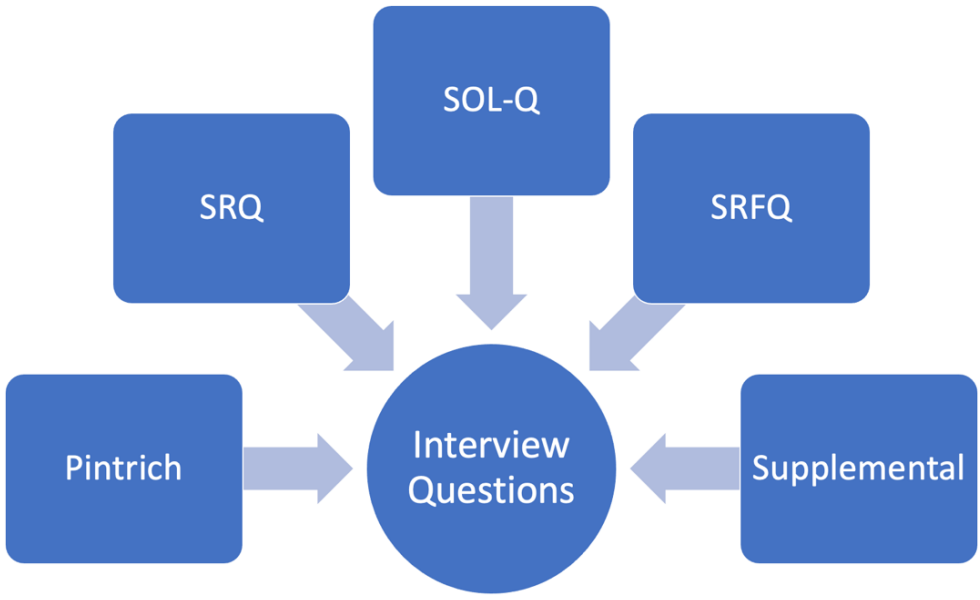
4.4.3 – Student Semi-Structured Interviews

Question Development

The core of the student interview questions were built around the four phases of Pintrich's (2004) SRL framework as a way to examine what activities and approaches students employ when completing DE coursework. Each of the four SRL phases were evaluated through multiple questions in each personal interview. This structure gave every participant an opportunity to attend to each specific component several times through a variety of questions. This provided a broader perspective with which to inspect each phase of SRL and how those components may or may not be in use by each student. Along with Pintrich's (2004) framework, the sources outlined in the previous section were used to develop 26 questions for the individual interviews as seen in Figure 6. These questions created the interview guide (Arksey & Knight, 1999; Cohen &

Crabtree, 2006d) used with each participant. The use of this guide facilitated a consistent approach (Turner, 2010) to reach the desired depth of responses and also "increases confidence in the trustworthiness of the data that may be obtained" (Malmqvist et al., 2019, p. 10). Of these, 11 questions were directly focused on specific aspects of SRL. The 15 remaining questions were included to capture demographic information for the purpose of structuring and categorising responses, information about self-efficacy with each SRL phase, as well as supplemental data that might prove helpful in categorising or expanding responses. Examples of the supplemental question areas included the participant's desired level of achievement, top challenges experience while in DE, and supports accessed. These supplemental questions provided participants the opportunity to share additional information about their DE experience and provided data well beyond the original focus of SRL.

Figure 6 - Interview Questions



Pintrich -> Phases and Areas of Self-Regulated Learning (2004)
SRQ -> Self-Regulation Questionnaire
SOL-Q -> Self-Regulated Online Learning Questionnaire
SRFQ -> Self-Regulation Formative Questionnaire

The student semi-structured interview questions used in this study can be found in Appendix 1.

Piloting and Validation

Prior to conducting the individual student interviews, two quality assurance steps were taken in order to ensure there were no major issues with the questions. The first step was to have the questions reviewed by the Director of Dual Enrolment who, as an expert in this area, was able to confirm the questions were sufficiently clear, meaningful, and were sequenced effectively (Majid et al., 2017). The second step was to run a pilot of the semi-structured questions. Stake (2010) noted that it should be routine practice to pilot interview questions. Increasing attention has been given to the usefulness of pilot studies (Malmqvist et al., 2019). Majid et al. (2017) note that piloting is "crucial to test the questions and gain some practice in interviewing" (p. 1073), which Malmqvist et al. (2019) suggest is particularly important for studies with semi-structured interviews. Turner (2010) notes that piloting should be done with "participants that have similar interests" (p. 757) as those in the actual study. With this in mind, the initial set of questions was piloted with two active DE students who met the same criteria as actual research participants described later in this chapter. Piloting was used to determine if any modifications were needed to wording, ordering, or scope (Teijlingen et al., 2001) in order to obtain the richness of data desired. The pilot was also used to confirm if the time estimate of 30 minutes was sufficient for the interviews. Feedback from the pilot indicated two questions were unclear and needed to be reworded for clarity. Although the pilot experience did include practice with using the recording equipment, no data was preserved or used in the data analysis or findings of this study.

Figure 7 - Process for Conducting the Pilot Study

Adapted from Majid et al. (2017)

4.4.4 - Student Focus Group Interview

The focus group interview extended the line of research from the semi-structured interviews and was also centred around the four phases of SRL. The questions for the focus group were generalised around the main SRL themes and then expanded to allow for broader information to be shared related to the DE experience. This structure was intended to encourage group interaction and "probe for meaning" (Wilson, 1997, p. 221) where there may have been hesitancy during the individual interviews. These themes were designed to "draw upon respondents' attitudes, feelings, beliefs, experiences and reactions" (Gibbs, 1997) in order to further explore their experiences in DE (Sim & Waterfield, 2019) and "clarify and extend findings" (Nyumba et al., 2018, p. 28). The result was not only a rich account of how they managed their learning but a revelation of other prevalent factors experienced during their transition. In all, ten questions, or areas of inquiry, were developed for the focus group. Of these, four were focused on a specific component of SRL and two were focused on opportunities for the university to improve support. The four remaining questions were included to capture demographic or supplemental data that

might prove helpful in categorising or expanding the analysis of participant experiences and responses.

The list of student focus group interview themes used in this study can be found in Appendix 2.

4.4.5 – Student Interview Settings

Various settings were used for the semi-structured interviews. When possible, an in-person interview took place at the university campus in a commonly accessible meeting room. The university venue was selected as a familiar location that students were already accustomed to through participation with the DE program. It was also important for the interviews to take place in a public location, such as the library or conference rooms, to increase the feeling of safety for both participants and myself as researcher (Arksey & Knight, 1999). For students who could not physically come to campus due to proximity or scheduling challenges, a phone call or video conference option was utilised. The shortest interview lasted just under 18 minutes, the longest interview lasted nearly 38 minutes, with the average interview length being close to 25 minutes.

The focus group was conducted entirely in-person in a conference room located at the university campus. Each participant was given a name tag so they could be easily identified. The participants were all seated next to each other, across from the interviewer. Focus group interviews were estimated to last 60 minutes which has been noted as good target length (Nyumba et al., 2018; Onwuegbuzie et al., 2009). The focus group discussion lasted nearly 57 minutes.

4.4.6 – Instructor Interviews

Instructor interview questions were adapted from the student semi-structured interview questions and were expanded to include transition-related topics. This process resulted in 25 questions that could supplement the data captured from students. Similar to the student interviews, 11 questions were directly focused on SRL experiences and factors related to academic success. 6 interview questions were focused on instructor perceptions of the transition of students. The 8 remaining questions were included to capture demographic information about each instructor along with open-ended supplemental questions. The questions developed resulted in an interview guide (Arksey & Knight, 1999;

Cohen & Crabtree, 2006d) that could be used with each participant to support a consistent approach (Turner, 2010) for the interviews and improve confidence in data trustworthiness (Malmqvist et al., 2019). All instructor interviews took place via Zoom to accommodate schedule preferences. The shortest interview lasted nearly 31 minutes, the longest interview lasted just over 45 minutes, with the average interview length slightly over 38 minutes.

The instructor semi-structured interview questions used in this study can be found in Appendix 7.

4.5 – Sampling and Participants

4.5.1 – Student Participant Sampling

Problem sampling was used to create a purposive sample of participants that had information applicable for responding to questions of the research study (Layder, 2013). All student participants in this study were actively participating in DE at the same university. To be considered for the study, students needed to have fully completed at least one DE course at the university. All participants were living in the state of Minnesota and were between the ages of 16 and 18 years old, which is the typical age for DE students. A minimum of 16 participants was desired for this study, ideally with an equal number of male and female students. This number is consistent with what Brinkmann (2013) notes as a threshold for the "practical handling of data" (p. 59) in research studies. Layder (2013) also noted that the goal of problem sampling is not to find representation from a large population but to have representation based on the "problem-relatedness" of the sample.

The original intent was to have a split group of eight "higher" performing students, averaging As or Bs on their coursework, along with eight "lower" performing students, averaging Cs or Ds on their coursework. However, due to regulations and restrictions from the Family Educational Rights and Privacy Act (USDE, 2021), obtaining academic records was not possible without prior approval from each student which was not practical for this study. Instead, each participant was asked to share their academic performance level information during the interviews if they felt comfortable doing so which they all did.

In conjunction with the DE office, I was able to obtain a list of 1,847 students who met the criteria above. The students in that list were emailed an invitation to participate. Responses were received from a total of 151 students. Of these, 41 students were willing to participate and 110 students declined. A total of 18 students participated in the semi-structured interviews. The determination for participation was largely based on convenience and the timing of when students could commit to the study. Once the 18 were confirmed, any further interested participants were declined, noting that some acknowledgments continued to come in after the deadline. Of the 18 confirmed participants, six students were male and twelve students were female. Two students did not return signed consent forms so their data was excluded from analysis.

Of the eighteen students I interviewed, fourteen students were invited to participate in the in-person focus group. The four students who were not invited to participate in the focus group were taking online courses and lived far enough away from campus that it was unreasonable for them to travel. Similar to the individual interviews, the determination for participation in the focus group was based on a willingness to participate. Six responded indicating a willingness to be in the focus group. Of those six, one could not make the selected time and one did not show up. This resulted in a focus group with four participants which is in line with size recommendations (Krueger, 1995; Wilson, 1997). Although the participants were all females and students in the same DE program, they did not have pre-existing relationships, which Sim and Waterfield (2019) note is an asset for focus group interviews. The purpose of the study was reiterated with the focus group and I also discussed the "ground rules" with the participants, such as the need for confidentiality, both before and after the interview (Sim & Waterfield, 2019). Additional details about the student participants will be outlined next.

4.5.2 – Student Participant Information

This section highlights information about the 16 student participants to help contextualise their responses. The following table displays self-reported information that was collected during the semi-structured interviews.

Table 2 – Student Participant Information

Name	Age	Start Term	No of courses being taken	No of courses completed	DE Other	Grades Strive	Grades Earned	Plans After HS	Getting Support
Abigail	17	FA17	3	10	Y	A	AB	College	N
Deborah	17	FA18	1	10	N	A	A	College	Y
Elizabeth	17	FA18	4	7	N	A	A	UNW	N
Esther	18	FA17	4	9	Y	A	AB	UNW	Y
Joanna	17	FA18	3	7	N	A	A	UNW	N
John	17	FA18	1	2	N	AB	AB	UNW	N
Leah	17	FA18	4	10	Y	A	AB	Family	Y
Luke	18	FA18	4	9	N	AB	AB	College	N
Mark	17	FA17	4	10	N	AB	AB	College	Y
Mary	17	FA18	4	8	N	A	AB	College	Y
Matthew	18	FA18	5	10	Y	AB	ABD	College	N
Naomi	17	FA18	6	10	N	A	AB	UNW	Y
Paul	18	FA18	3	6	N	AB	AB	College	N
Rachel	18	SP19	4	4	Y	A	A	College	N
Ruth	18	FA17	4	15	Y	A	A	UNW	N
Sarah	17	FA18	6	9	N	A	ABC	College	Y

The data included in the previous table will be defined next along with a brief summarisation of findings for each section.

Name

Each participant was assigned a gender-aligned pseudonym for use in this study. These first name pseudonyms will be used when quoting participants in later chapters. Grinyer (2002) recognises that anonymity should be maintained when possible and warns of the challenges with assigning pseudonyms while ensuring authenticity to the participants' stories. No pseudonyms were assigned that matched another participant's real name.

Age

The ages of participants at the time of the interview ranged from 17 to 18 with an average age of 17.4. This is in line with the average expected age of DE students (see Section 2.2).

Start Term

The interviews took place at the end of the spring semester 2019. Participants indicated when they began participating in the DE program and the length of time ranged from one to five semesters. The majority of participants indicated they had completed two semesters (the fall 2018 and spring 2019 semesters).

Number of courses being taken

This represents the number of DE courses the participant was taking at the time of the interview during spring semester 2019. The numbers ranged from one to six courses with an average of four courses per participant.

Number of courses completed

This represents the total number of courses each participant had completed. Due to the timing of the interviews, this number also included the number of courses each student was taking during the spring 2019 semester. The number of courses completed ranged from two to fifteen with an average of nine courses per participant.

DE Other

Each participant was asked if they had participated in a DE program at any other institution(s), either previously or currently. Six participants indicated that they had taken DE courses from other institutions while ten indicated they had not.

Grades Strive

Early in the interview, each participant was asked what types of final grade(s) they typically strive for in their DE courses. Eleven participants said they only strive for an A while five indicated that earning an A or B was their goal.

Grades Earned

Later in the interview, participants were asked what final grade(s) they actually earned in DE courses. Five participants indicated they had achieved only As in their courses. Eleven participants had earned some version of an A or B in their courses. Of those, two also referenced earning either a C or D.

Plans After HS

Participants were asked what their plans were when they completed high school. Fifteen had plans to continue their education at a postsecondary institution and one planned to start a family. Of the fifteen that planned to seek higher education, six of those participants intend to matriculate to the same university where they were taking DE, indicated by "UNW." The remaining nine had plans to attend a different institution, indicated by "College."

Getting Support

The final column in Table 2 indicates if the student sought support from any source at the university, other than from their instructor, while taking DE courses. Nine students indicated that they did not and seven indicated they had.

4.5.3 – Instructor Participant Information

As with the student participants, the goal with identifying instructors was to create a purposive sample of participants. Six current DE instructors were contacted from a variety of disciplines, including both Liberal Arts and Sciences, to participate in the study. Of those, four responded with interest but one was unable to commit at the time needed. The three instructors who participated had rich experiences teaching DE in both online and in person environments. Additional details about instructors who participated in this study are found in the following table.

Table 3 – Instructor Participant Information

Professor Name	Subject Area	Years Teaching	Taught Online	Taught In Person	Taught Elsewhere
Bates	Mathematics	16	Yes	Yes	No
Olson	Communication	10	Yes	Yes	No
Smith	Science	21	Yes	Yes	No

Professor Name

Each instructor participant was assigned a pseudonym to represent their last name for this study. These pseudonyms will be used, along with a "Professor" title when quoting instructors in later chapters. As with the students, no pseudonyms were assigned that matched another participant's real name.

Subject Area

A variety of subject areas were represented in the study. The instructor's primary academic discipline and area of expertise was noted.

Years Teaching

To understand more about each instructor's background with teaching DE courses they were asked how many years of DE teaching experience they had. Time teaching DE ranged from 10 years to 21 years with continuous engagement throughout that time.

Taught Online

Since DE can be taught in a variety of modalities, each instructor was asked if they had taught DE online. All participants had experience teaching online courses to DE students.

Taught In Person

Similarly, each instructor was asked if they had taught DE section in person. All participants also had in-person teaching experience with DE students.

Taught Elsewhere

Each participant was asked if they had taught DE courses for another institution. None of the instructor participants had experience teaching DE courses at any other university.

4.5.4 – Ethical Considerations

In consideration of ethics, Denscombe (2002) suggests that researchers need to address the question, "have the rights and interests of those affected by the research been taken into consideration?" (p. 174). A significant step toward being able to answer yes this to question was that I followed the processes outlined by the University of Glasgow's College of Social Sciences' Ethics Committee along with my own university's Institutional Review Board. I aimed to ensure that all participants were fully informed about the research process and aims (see Appendices 4,5, 8 & 9) and that they were treated with dignity during the interview and analysis process. I was also intentional to be "respectful of the participants' contributions and quotes, and [to have] results…reported truthfully and honestly" (Johnson et al., 2020, p. 142).

With any semi-structured interview, there is already an "unequal balance of power in the relationship between interviewer and respondent " (Husband, 2020, p.6). The fact that I am an employee of the university where the students were studying may have fostered a perceived balance of power, so ensuring confidentiality was critical to not inhibit responses. Interestingly, Wilson (1997) suggests that this power dynamic is reduced within the context of focus groups interviews. Therefore, I did my best to ensure participants understood anything they shared would be confidential and that their identity would be anonymised. This transpired through reviewing consent forms as well as verbally expressing this before and after interviews.

The need for confidentiality was emphasised by Grinyer (2002) who noted that there can be repercussions on a person's life if this is not maintained and might even "affect academic and social standing and personal and professional relationships" (Sikes, 2006, p. 114). Sim and Waterfield (2019) note the distinction between external and internal confidentiality. External is what I, as a researcher, can control by what is shared in the study. Internal confidentiality (i.e., information that could be shared by group members) is more challenging since researchers have little to no control over how group members act outside of the interview. To my knowledge, participants had no prior relationships with, or awareness about, other members of the study, which is especially helpful with focus groups for preserving anonymity (Morgan, 1997). In all cases, there

was clear consent given, an understanding that identities would be confidential, and that findings would be anonymised, which is particularly important for focus group settings (Sim & Waterfield, 2019).

No incentives were offered for participating in this study. In other types of research, incentives or payments may be offered and have been found to be effective (David & Ware, 2014); however, introducing incentives can be problematic (McNeill, 1997) and can raise ethical concerns including "undue inducement, exploitation, and biased enrollment" (Resnik, 2015, p. 35). My desire was to engage with participants who were interested in the purpose of the study rather than receiving a reward.

In accordance with the University of Glasgow's ethical guidelines, since the student participants of this study consisted of both minors (aged under 18) and adults (aged 18), I needed to take care to have an accurate understanding of each participant's age. This was obtained initially through the participant list provided by the university and then confirmed during each participant interview. Importantly, this was relevant to matters of obtaining consent for minors (those aged under 18) participating in the study where both the participant and carer provided consent.

Lastly, as I have taught DE courses, I ensured that none of my current or former students were involved as that may have changed the type of relational dynamics from researcher/participant to professor/student. Although the participants did know that I was employed by the university, I tried to avoid any power dynamics that may have surfaced during the research process.

4.6 – Data Collection and Management

4.6.1 – Recording

Having a dependable method of capturing the information that was shared was key to the success of this study. If interview data was lost, or of low quality during the discussion, the integrity and success of the study may have been compromised (Easton et al., 2000). The student semi-structured interviews were recorded using two devices, a primary and backup. The primary method was to use a cell phone recording app. I had used this method in previous situations and

found that it provided sufficient and reliable results. The secondary method was to use a laptop microphone to capture a backup recording. The laptop was utilised in case there was a problem or malfunction with the cell phone device. These devices were placed on a table in front of the participant so they could see me both begin and end the recording, which I announced. The digital collection of data in this way was intentional to provide the opportunity for repeated analysis (Hammersley, 2010). All instructor interviews were recorded via Zoom. During each interview, handwritten notes were taken to capture the main ideas that were shared. Stake (2010) notes that "all researchers have great privilege and obligation: the privilege to pay attention to what they consider worthy of attention" (p. 49). The combination of audio and written notes provided a thorough account of what was shared by each participant and the exchange that took place. This provided the raw material for the research findings from which to explore, analyse, and draw conclusions.

In a similar way, the audio from the focus group was recorded using a primary and backup device. A conference phone was used as the primary device and a cell phone as a secondary device. The conference phone had a superior microphone for capturing the group conversation since participants were positioned at different distances to the microphone. The conference phone was dialled into a Zoom meeting which also provided an opportunity for a webcam with 360-degree recording capabilities to be utilised. This video recording was helpful during the transcription process to help ensure accuracy in attributing quotes to the correct participant. The cell phone used in the individual interviews was used as a backup device in case the primary device experienced a malfunction. As with the individual interviews, handwritten notes were taken to capture key points of the conversation for reference during later analysis.

4.6.2 – Storage

All audio files, from both the primary and backup devices, were saved and then transferred to a secure cloud storage location for later retrieval and analysis. The files were transferred on the same day they were recorded and then deleted from the recording devices. Each file was saved with the participants first name. The digital interview transcripts, discussed next, were also transferred to a secure cloud storage location. Sim & Waterfield (2019) stress the importance of

keeping materials confidential emphasise the need for care with "what is done with information once it is in the researcher's possession" (p. 3008). I took the protection of this information seriously. The storage location was password protected and not shared with anyone else.

4.6.3 – Transcription

While there are many types of data that can be collected from interviews and focus groups, "transcript-based analysis represents the most rigorous…mode of analyzing data" (Onwuegbuzie et al., 2009, p. 4). However, the work of transcription can be filled with pitfalls and errors which can result in misrepresentation of words and changes in meaning (Easton et al., 2000). To gain a more accessible format of the information that was shared by participants, I manually transcribed the audio recordings from all interviews, both from individuals and the focus group. When transcribing the focus group, I also utilised the video recording to ensure correct attributions were made. This follows recommendations (Easton et al., 2000) that whenever possible, the researcher should attempt to perform the transcription directly since "analysis and deeper understandings of data occur during the act of transcribing" (Tilley, 2003, p. 770).

There are many decisions and challenges that come with the work of transcribing (Davidson, 2009; Hammersley, 2010). Tilley (2003) warns that the researcher and transcriber leave their mark, like fingerprints at a crime scene, on the project and that their "interpretive/analytical/theoretical prints become visible" (p. 752) on the text that is created. In other words, the transcription process can directly influence the data, analysis, and even findings. My attempt was to follow a "naturalized transcription" approach (Davidson, 2009) which has some constructional aspects (Hammersley, 2010) but aims to accurately present the words captured on the recording in a way more common in written discourse. This meant I did not pay close attention to capture "involuntary vocalizations" (Oliver et al., 2005) which some researchers may find valuable. While the primary recording was sufficient for generating a transcript of the interviews, there were times that the backup recording was accessed in the event that a word or phrase was not clear. Once the transcripts were created, I relistened to each interview with the transcription text on screen to validate the

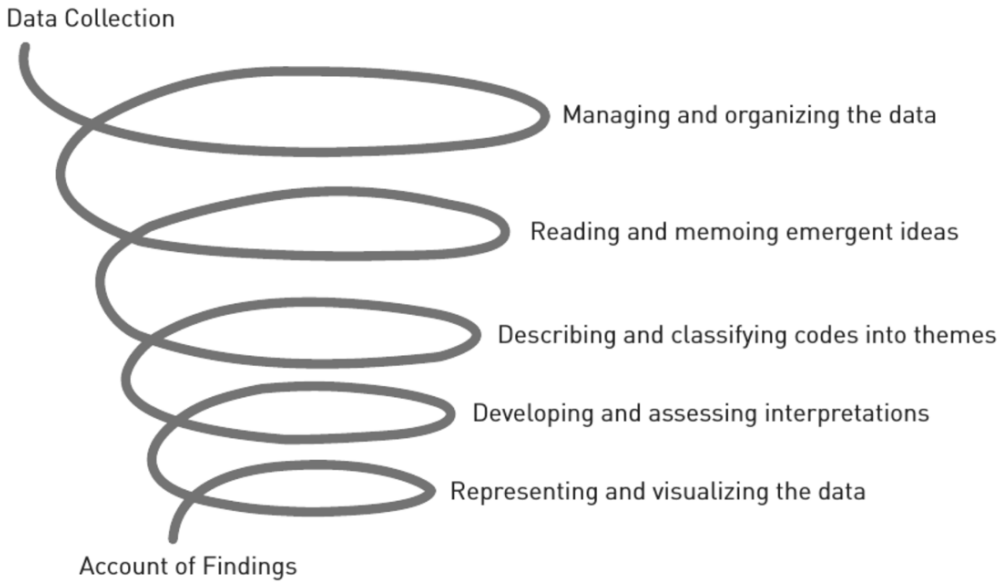
representation was as accurate as I could make it. Each participant received a copy of the transcript and audio file from their interview for them to review and confirm the accuracy.

4.7 – Data Analysis

Having explained how data was captured, this section will outline considerations of analysis. The process of taking data collected from interviews and determining themes and meaning is complex and must be approached with care. The work of interpretations impacts every aspect of a study. Schwandt et al. (2007) stated that even "identifying something as evidence is itself interpretation" (p. 11). Stake (2010) describes analysis as "essentially…taking something apart" (p. 71). This process of taking apart must be done thoughtfully and intentionally for in time pieces of what was taken apart will be put together in new ways. Even the work of transcribing needs to be thought of as part of the overall analysis approach as it involves translating data from one medium to another (Brinkmann, 2013, p. 62). The transcriptions created a textual representation of the audio data which could be more easily searched, categorised, and analysed. The process that I experienced was similar to the data analysis spiral Creswell (2017a) introduced as shown in Figure 8.

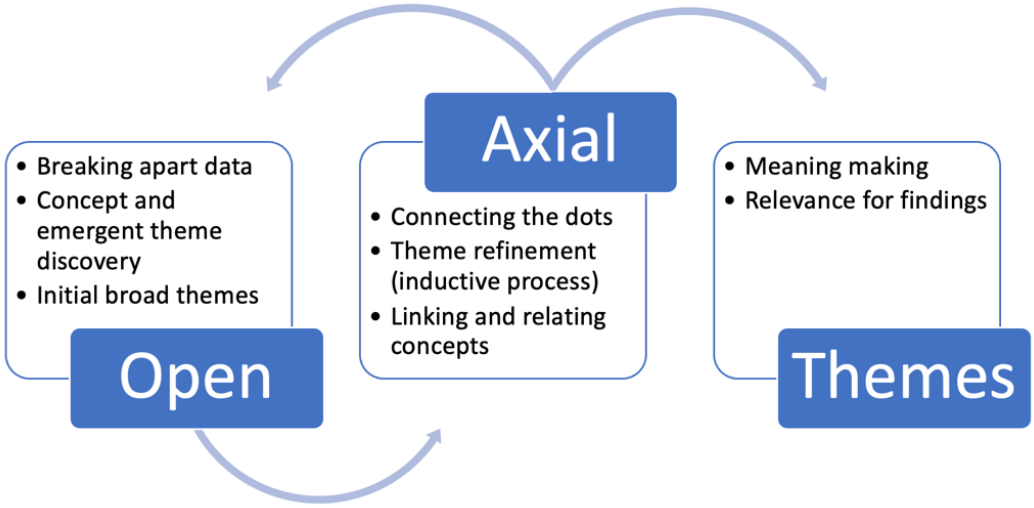
Figure 8 - Data Analysis Spiral

From: Creswell (2017a, p.186)



Rather than a linear process from data to findings, the analysis process required a more dynamic and iterative process of going back to the data again and again in the search for meaning and themes. Transcripts were loaded into a computer-assisted qualitative data-analysis software (CAQDAS) program called NVivo 12, which is software specifically designed for qualitative data analysis (NVivo, 2021). NVivo itself supported the analysis process but did not govern the design of the study (Zamawe, 2015). CAQDAS tools like NVivo "make it much easier to move around and across data records" (Hamilton & Corbett-Whittier, 2013b, p. 152) and allow data to be easily accessed, tagged with various meanings, aligned across the multiple interviews, and ultimately searched more deeply (Johnson et al., 2020). Although concerns and limitations with using CAQDAS like NVivo have been noted (Maher et al., 2018; Woods et al., 2016), Woolf et al. (2018) argues that those concerns are outdated. Elliott (2018) observed several advantages of using NVivo including the ability to "develop complex stratified sets of codes, arranged around nodes, in different layers" (p. 2857). By searching "for patterns…for consistency within certain conditions" (Stake, 2010, p. 78) meaning can begin to emerge. I found NVivo to be incredibly helpful to store and access data and to support the analysis and coding process. Figure 9 provides a visual representation of the coding process followed.

Figure 9 - Approach to Coding and Thematic Exploration



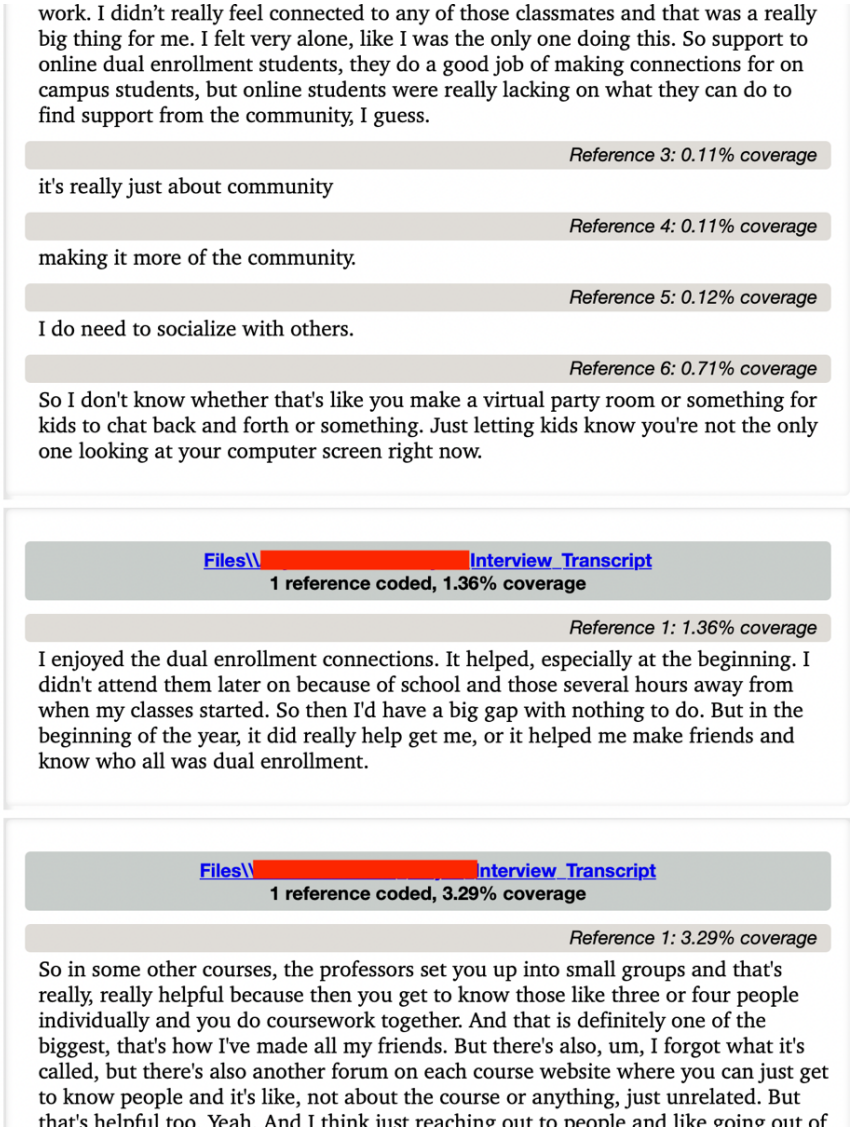
Coding is a decision-making process (Elliott, 2018) where codes provide an "abstract representation of an object or phenomenon" (Corbin & Strauss, 2008,

p. 66). The process employed in this study was guided by a grounded theory method (Williams & Moser, 2019) and moved from open to axial coding strategies. McIntosh and Morse (2015) note that "grounded theory strategies may be used with other theoretical starting points" and that "research practice [can be] informed by a variety of philosophical perspectives" (p. 2). Beginning with open coding, the transcripts were broken apart (Corbin & Strauss, 2008), initially question by question (see Appendices 1 & 2) for comparative analysis (McIntosh & Morse, 2015), allowing data which appeared to be relevant to a point of interest to be tagged (Elliott, 2018). Responses that appeared to be related to more than one idea were given multiple codes in NVivo which is a helpful practice in early stages of analysis (Jackson, 2019). Admittedly, this collection of data removes a layer of context, by isolating comments from their embedded point in the interview. However, this process allows data to be consolidated into groupings helpful for understanding transitions and how participants managed learning across various data points. Although the focus group data could have been analysed at the group level, I selected to continue to analyse at the question and individual level. This provided the opportunity to not only see themes across participants but also note outliers or dissenters (Onwuegbuzie et al., 2009).

There were some a priori concepts and themes that were anticipated in this study (Creswell, 2017a) specifically around SRL (i.e., planning, monitoring, controlling, and reflecting); however, the coding was not constrained or limited to these areas, thereby allowing concepts to be more generative (Corbin & Strauss, 2008). Morse (2015) notes that "it is desirable to establish a coding system for research using semi-structured interviews" (p. 1215) which can provide an initial coding framework for analysis. Since this study was originally focused on student practices to managing learning, particular attention was given early on to discovering points in the conversation directly related to those areas. However, deeper inquiry into the participant responses required critical reflexivity (Jacobson & Mustafa, 2019) to recognise the nature of responses went well beyond SRL practices and included factors that impact the student experience transitioning to university. This resulted in categorising and coding information related to transitions, self-regulated learning, and self-efficacy to support an inductive analysis process (Brinkmann, 2013; Merriam, 1988). As

Williams and Moser (2019) put it, “determining a code from emergent themes from the data can be more art than science” (p. 49)” and that is how this felt. I continued to look for consistent wording or ideas expressed in responses (Turner, 2010), at times this might only be a short phrase or might include a full paragraph (Jackson, 2019). After analysing the data, common ideas and themes began to emerge from several codes (Creswell, 2017a). For example, under the theme of Transitions, the idea of community appeared both directly and indirectly in participant comments. Figure 10 shows an excerpt of the comments from the Community sub-theme created and coded in NVivo. The names in this figure have been hidden.

Figure 10 - Excerpt of Coding in NVivo



This approach was valuable and enabled participant responses to collectively generate themes and sub-themes for the study. Figure 11 shows a sample from NVivo that represents frequencies of references to a portion of the themes and sub-themes.

Figure 11 - Sample of Code Frequencies Generated from Transcripts

Name	Files	References
Challenge&Effort	16	63
Expectations	7	8
Level	16	30
Motivation	3	4
Schedule	10	11
Social	6	8
Stay Current	2	2
Stress	3	3
Structure	10	13
Questions	0	0
Self-Efficacy	0	0
1 - Planning	16	24
2 - Monitoring	15	19
3 - Controlling	15	23
4 - Reflecting	14	16
SRL 1 - Planning	17	65
Course Matters - Course Structure	6	8
Course Matters - Instructor	8	14
Course Matters - Syllabus	14	33
Nothing	2	2
Organization - Materials	10	17
Organization - Schedule	15	42
Organization - Space	1	2
Orientation	1	1
Peers	4	6
Self	3	4
SRL 2 - Monitoring	17	51
Internalization - Challenge	4	5
Internalization - Comprehension	8	9
Performance - Grades	9	13
Performance - Peers	2	2
Scheduling - Level	3	3
Scheduling - List	8	12
Scheduling - Mind	3	5
Scheduling - Moodle	6	8
Scheduling - Schedule	15	36
Scheduling - Syllabus	2	2
Scheduling - Timing	5	6
SRL 3 - Control	17	72

From this point, the next stage of analysis, axial coding, could begin which "further refines, aligns, and categorizes the themes" (Williams & Moser, 2019, p. 50). At this stage, the work of connecting the dots, or "crosscutting" (Corbin

& Strauss, 2008) can take place. This allowed the secondary level analysis to be used to inductively form themes from codes rather than the data itself (Elliott, 2018). Some codes were immediately and clearly identifiable while others evolved throughout the process. For example, “challenge” and “comprehension” were derived from interviews and were coded accordingly. After further analysis, these were grouped together under their appropriate theme (Monitoring) and sub-theme (Internalization) as shown in Figure 11. Again, Figure 9 (in this section) shows a visualisation of what the process looked like and the interplay between the open and axial processes. Evidence of this dynamic process is shown in Figure 11 where some sub-themes have very few references (only 1 or 2) as potential outliers (Onwuegbuzie et al., 2009) while others were determined to have many more references and potentially greater weight (Elliott, 2018).

The main themes and sub-themes from the coding and analysis process are found in Appendix 6.

4.8 – Limitations

Several limitations were noted using the methods outlined in this chapter. Focus groups have the potential for more dominant voices to be heard while others may be subjugated (Sim & Waterfield, 2019). Although this was not a significant problem, it was clear that a hierarchy of participation emerged amongst participants. Another limitation relates to the process for making arrangements for the interviews. As the study proceeded, it became clear that the timing for engaging with students was not ideal for several reasons. The request to participate in the study was sent in early May which followed the natural progression and flow of the study. Unfortunately, this is the time of year when DE students are focused on completing their courses, getting through final exams, preparing for summer activities, and in some cases graduating from high school. This created a situation where many students indicated they would have been willing to participate under different circumstances but were unable to commit to this study at the particular time they were asked. The time it took to schedule and complete the semi-structured interviews pushed the focus group meeting into June. This was also a challenging time to meet with students since many indicated they were going on trips, starting summer employment, or they

simply became unresponsive to communication. These challenges were not foreseen when requesting participant involvement. Starting this process earlier would have been advantageous to the study and may have yielded higher participation levels. In addition, the students were responding to questions retrospectively since they were at the conclusion of their academic year. Had the students been asked the interview questions earlier in the semester, or perhaps before beginning courses, their responses may have differed. Section 9.3 outlines additional limitations noted with this study.

4.9 – Reflecting on the Research Process

As a researcher, this study was incredibly fulfilling, challenging and enlightening. Going through the process of critically thinking about my positionality related to the study and participants (see Section 4.2.4) provided new perspective into the complexities and privileges that my role as a researcher carries (Denzin, 2009; Jacobson & Mustafa, 2019; Shaw et al., 2020; Wilson, 1997). The pilot study of the interview questions helped strengthen and improve the process and enabled me to gain experience in conducting interviews. Upon reflection, it may have been somewhat unreasonable to ask the pilot participants to provide constructive feedback without time to distance themselves from the interview experience (Sampson, 2004). Conducting a pilot with a focus group would have also been helpful to practice and potentially improve my group facilitation skills (Nyumba et al., 2018); however, that did not initially occur to me since my primary focus was on the semi-structured interviews. Although capturing the interview data was relatively straightforward, the process of analysing the data was an intense, though immensely fruitful, process. This is largely because the interviews not only produced the expected data related to academic learning but also about transitions which was beyond what I anticipated. Malmqvist et al. (2019) notes that the "quality of data is dependent on the interviewers' competence" (p. 9) which I was mindful of. I have greater appreciation for the need to have an intentional and thoughtful process throughout the design and implementation of a research project. Although I was familiar with some of the operations of the institution, understanding the student experience through the voices of the students themselves was an enlightening process. Through the work of identifying themes from the participant data, I can see opportunities worth

considering to advance university support for DE students in the future and I am excited to have a potential role in that work.

4.10 – Summary

A key component of the design and execution of a research project is being able to recognise and articulate the paradigms and assumptions that guide decisions throughout the study. This chapter has outlined that an interpretivist paradigm was used and that a single case study approach with qualitative methods were chosen for this study. Several key elements of the ontological, epistemological, and methodological assumptions and positions which shaped and guided the entire study were provided as they relate to an interpretivist paradigm. The study gathered data through semi-structured interviews with both students and instructors and also a focus group interview with selected DE students. This data was digitally recorded, carefully transcribed, and loaded into NVivo software for analysis. Through the open and axial coding process, supported by both anticipated and emergent themes, the analysis of interview data provided valuable insights related to SRL and into the area of transition experiences which resulted in a broadening of the scope of the study. The results of this work provide the foundation for any assertion or conclusions that might be made which Mason (2002) advocates is where the efforts of all qualitative research must ultimately be oriented. In the case of this study, that aim is to identify the factors that impact the transition experiences of DE students moving from high school to university and how they manage their university learning. The next chapter begins the presentation of research findings.

CHAPTER 5 – FINDINGS: LIVING IN TRANSITION

5.1 – Introduction

The findings of this study are presented in the next two chapters. Chapter 5 presents findings on the students' transition experiences while participating in the dual enrolment (DE) program (Research Question 1). Chapter 6 examines student practices for managing their learning while taking DE courses along with student perceptions about their self-efficacy with components of self-regulated learning (Research Question 2).

When entering into a new learning environment, students will bring expectations with them about what the experience will be like and how challenging and rigorous courses will be (Bandura, 1977; Grolnick & Raftery-Helmer, 2015). Any discrepancies between their expectations and reality will need to be confronted and reconciled (Maunder et al., 2012). Since secondary learning environments (SLE) and postsecondary learning environments (PSLE) have significantly different systems, structures, operations, and experiences (outlined in Section 3.2.2), students may need to let go of the practices used in secondary school and adopt new learning strategies in order to be successful (Abdous, 2019). These strategies will need to be constantly evaluated as students regularly cross the boundary lines of these new environments and engage with different communities of learners (Wenger, 1998). Over time, DE students will experience the influence of various social forces (Gale & Parker, 2014) as they create a new type of "multimembership" identity (Wenger-Trayner et al., 2015). Establishing this new identity is an important ingredient in finding community and developing a sense of belonging which are vital to learner success (Peacock et al., 2020).

This chapter will give attention to themes related to the transition experiences of DE students that emerged during the participant interviews and reflexive data analysis process. The first two sections will examine social elements of the transitions as the students expressed their desire for community and acceptance. The following two sections will examine academic elements of their transitions as they encountered changing levels of effort and navigated unique elements of the different educational contexts. The student experiences shared as part of the interview process will help address Research Question 1: What are

the principal challenges encountered by one group of dual enrolment students in Minnesota, U.S. during the secondary school to university transition experience?

5.2 – Desire for Community

5.2.1 – Student Need

A desire for community was apparent from the participant interviews, along with challenges to finding it. Establishing connections within the community during their time in the DE program was a way to address their social needs. Mary was looking for "a place I want to be, not just for classes but also for community." Similarly, Sarah expressed her "need to socialize with others," along with her disappointment at the lack of socialisation experienced in DE, "I had like very little social interaction and so that was really hard." Establishing relationships often took intentional and proactive effort such as contacting and engaging other students which is what Elizabeth tried by "…just reaching out to people and like going out of your way and say, 'hey, I want to be your friend'." Leah found that when she took steps herself that was "the biggest thing that helped me" find community. Community was desired in both the online and on-campus experiences but the online environment presented unique challenges.

5.2.2 – Added Online Challenge

For participants taking online courses, establishing connections with other members of the community was found to be particularly challenging. Elizabeth prefers to be "in person" to meet her social needs and felt the disadvantage of the online environment:

> …not having a lot of classmates that you can talk to in person…that can be hard because everyone's online…especially for me, I like to be in person and relational like that. (Elizabeth)

She went on to describe the feeling of isolation and how learning online "can feel like you're alone if you're not actually in a classroom." Sarah also took online classes. In the focus group she shared her experience of feeling "very alone" even though there were many other students active in her course:

> I wasn't, you know, really connecting with anybody else because while there were 45 other people looking at their computer screen at the same thing I was looking at, we weren't together. And even if we were together

> virtually, it didn't feel like we were connected. So I was struggling…I felt very alone, like I was the only one doing this. (Sarah)

When asked what would help her feel more connected, Sarah acknowledged that there is not an easy solution to this but was hopeful the DE office "could provide something, and I don't know what, for students online to get to know each other, that would be really helpful." Likewise, Professor Smith shared that finding meaningful ways to establish connections with online students is "a problem I've been wrestling with ever since the beginning." He does offer virtual office hours and invites every student to come to get to know them. To help students feel like they are part of a group, Professor Bates has found success with using "broadcast email" to the entire online class.

5.2.3 – Institutional Provisions

Gathering Places and Social Events

The difficulty of connecting with students was not unique to online courses. Students who were on campus also experienced barriers to creating relationships, and even more fundamentally, with finding other DE students. During the focus group, it was shared how not having an established location to meet other DE students was seen as a disadvantage:

> …maybe a place that PSEO students can go, cause you don't know who is a PSEO [DE] student unless you ask them…just like finding other PSEO students that you know, like weren't even in the same class. (Mary)

Deborah responded with a similar "desire to be more part of the [university] community" but was also hoping the university would provide "easier access to other PSEO students." Professor Bates has desired a place to "actually physically meet [DE] students" for some time as a way to build community. The DE office did coordinate opportunities for students to attend, called Connection events. Naomi took initiative to build community by attending campus activities and Connection events which she found "helped, especially at the beginning…it helped me make friends and know who all was dual enrolment" (Naomi). While Connection events were helpful in meeting the social needs of some students; however, the fact that these events were optional was noted as a factor that potentially diminished their value. Sarah suggested that high school students have a different "mindset" around expectations for participating in events and

are accustomed to activities being required. If that mindset hasn't "completely changed over" it's unlikely high school students will participate in optional activities:

> [The university] does an amazing job coming up with different things for students to go to, but they're optional. High school students…they're just required to go to things. And so, if you haven't completely changed over to that mindset where everything in college is optional…then kids aren't going to go to them. (Sarah)

Mary found Connection events to be limiting and was disappointed at the level of personal initiative she needed to take to find relationships with other students:

> The Dual Enrolment office didn't really play a big part in the community. I kind of had to find it on my own, which is a bummer. But when I found it on my own it was great. (Mary)

Although the DE office has made attempts to create opportunities to connect, there may be an assumption that everything that can be done is being done. For example, Professor Olson made suggestions for ways the university could support community such as conducting a survey of interests to help DE students explore opportunities around extracurricular activities. She then remarked that "those other [DE] offices have all of that stuff already figured out" and "I'm sure that's already happening."

Academic Activities and Connections

Beyond social events, participants were also able to find community through course activities. This was commonly achieved from working together in small groups of students during courses:

> …the professors set you up into small groups and that's really, really helpful because then you get to know those like three or four people individually and you do coursework together. And that is definitely one of the biggest, that's how I've made all my friends. (Elizabeth)

Professor Smith has used group activities before and has found them to be helpful. He also suggested the institution could encourage instructors to "get in touch with students individually during the first week of class" and have academic advisors meet individually with students before the term starts and after the start of classes to strengthen connections with the university.

The desire for community reviewed in this section highlighted challenges students faced and ways they found success with making connections. A related but distinct theme that also emerged was a desire to feel accepted. The following section offers insights into barriers of feeling accepted experienced by DE students.

5.3 – Desire for Acceptance

Participants experienced some challenges and limitations to feeling fully accepted in their DE classes. Being a high school student meant they were younger than other university students. This created feelings of intimidation about entering the program.

5.3.1 – Perceptions of Being Younger and Not Normal

Sarah noted the difference in making connections compared to feeling accepted. In her case, it was difficult to feel accepted by older students because of her age. She felt "intimidated" because she was still in high school:

> I think it's just a very intimidating thing for a 16-year-old going in with 18- and 19-year-olds in the same classroom. Not that [the university] told the 19-year-olds, 'oh, that girl sitting right there, she's in high school, so treat her different.' It was just like, it was hard to feel, not necessarily connected, but maybe accepted, if that makes sense…It was just kind of intimidating to go up to someone who you knew was actually a freshman and say, 'oh hi, you know I'm 16 and I'm taking the same classes as you'…Coming in as a 16-year-old, I was really intimidated by this whole program. (Sarah)

Deborah also had concerns about her age and found it hard to introduce herself to classmates because they "are like so much older than me and they…probably realise how much younger I am than them." Likewise, Professor Olson felt there are misconception amongst DE students and they feel "big college students might not want to invest in a friendship."

During the focus group, Mary mentioned how "we're really not normal college students." Similarly, Mark indicated how being a DE student made him feel like he was being "judged" by his peers. He was also concerned that other students would know he was not paying tuition, since DE is funded by the state (as

outlined in Section 2.2.3), and that might create "abrasiveness" between him and others in class:

> Mark: I think just the subconscious knowing that all eyes will be on you…especially being a PSEO student, knowing that you're younger, some people might be like, oh, you're coming here for free. That automatically puts some abrasiveness between you…and being a high school student, and that not that I'm not supposed to be there, but in a way it's not natural that I'm there.
>
> Int: Do you feel like you've actually experienced that in the class or is it more of a perception or concern that it might be that way?
>
> Mark: It's more perception. Sometimes I'll catch people kinda like, looking like, he looks a little young to be here or um, sometimes people like ask, like are you PSEO? And then I'll say yes, but, yeah, I haven't had any bad encounters, yet, and I'm hoping there won't be.

Mark's expectation of his peers is that they would not accept him, as a high schooler, because it was "not natural" that he was taking courses with them. As he mentioned, the concern was largely based on perception rather than any actual negative encounters. Even so, the reference to not having bad encounters "yet" suggests he still believes the opportunity is there.

5.3.2 – Imagined Walls of Expectations

The fact that these concerns might primarily be one of perception was similar to Deborah's experience. The concern over not being accepted because of her age or being a DE student appears to have been reduced or eliminated after she engaged with university students:

> …but realising that after you start talking with people they really didn't notice, or they didn't care. So, I think being, I guess, brave and starting to reach out to people helps kind of breaks down the walls of expectations that you've set up that probably aren't true. (Deborah)

Deborah's "walls of expectations" related to not being accepted were apparent but was something that could be overcome. While there were clearly some barriers to gaining a feeling of acceptance that factor into the overall transition experience of DE students, they appeared to be primarily based on perception and could be overcome with effort. To that end, Professor Olson tries to empower her students and create a culture in her class as a "learning

community" to encourage DE students to ask questions and engage since she has observed that these students are not as "relaxed socially" and tend to be shyer and quieter. Over time, she can see their sense of belonging increase as they begin to "feel comfortable in their skin in the classroom."

The themes presented so far have focused particularly on the social elements of the transition experience related to a desire for community and acceptance as students participated in the DE program. In the next two sections, themes related to the academic elements of their transitions will be examined including their experience with changing levels of effort and challenges with concurrently navigating SLEs to PSLEs.

5.4 – Changing Levels of Effort

The varying levels of effort required of participants while moving between DE and high school contexts was shared by participants as a common experience. The levels of effort were primarily focused on the academic components and experiences of taking DE courses. This section will begin with what participants described as their perception and expectation for going into DE, including the time it would take and how challenging courses would be, before moving into what they experienced in reality.

5.4.1 – Pre-Transition: Anticipated Levels of Difficulty

Interviews revealed that DE students had a perception that their university experience was going to be more time consuming and difficult than high school. Professor Olson immediately identified a top misconception that students have is that "it will be too hard." Professor Bates also stated that DE students tend to "underestimate their abilities and overestimate the difficulty of the course." It was apparent that there were both exaggerated views of the increased challenge along with more accurate expectations held by participants. Going into DE, Elizabeth was apprehensive because of stereotypical thoughts she had about the experience. She was "expecting it to be like really hard, really, really, really time consuming…because it's college and I think that can be a stereotype." Discussing this in the focus group, Mary shared how she was "really scared all last summer" thinking about how hard classes would be. Sarah was also apprehensive about the experience thinking it was going to be "horrible" and

that she would feel lost. For Sarah, the fear of the increased challenge might translate into poor grades in her DE course(s):

> I went into PSEO with like this mindset of like oh my gosh this is going to be horrible, I'm gonna get all Ds because I have no idea what's going on. (Sarah)

Mark had a similar perception that starting at a university was like heading into "unknown territory" that would leave him "drained" and "exhausted":

> It's unknown territory. It's the next step…it's kind of scary. And so, I had this amped up idea in my mind that, um, every course would drain everything out of me and I'd be exhausted by the end of the year. (Mark)

These comments give the impression that DE was going to be very hard, more demanding, and even "scary" for students. Using that as a backdrop, I can now examine how difficult DE was for participants in reality after they had completed courses.

5.4.2 – Post-Transition: Experienced Levels of Difficulty

While the majority of comments suggested some apprehension about the anticipated increase in demand, not all participants found this to ultimately be the case. Joanna commented that she "thought it was going to be a lot harder" than what she actually experienced. Similarly, Elizabeth "was expecting more of a challenge" in DE and Esther found them to be "easier" than expected and connected that to the frequency of assignments she has encountered:

> They are easier than what I thought they would be. I thought that there would be like an assignment every single week and, you know, just powering in the homework. But in the classes I've had so far it hasn't been like that. (Esther)

For both Joanna and Esther, as with the others, there was an expectation about the increased level of effort required going into their DE courses. Some comments indicated the level of difficulty and effort was in line with what they expected for DE courses:

> I have found them to be about what I would expect…I think that they definitely go deeper than high school courses…but they're not like so hard that they bend your mind or make me stressed out or anything. (Ruth)

Deborah ultimately found DE courses to take more time and realised that's what should be expected as a new "normal" for that level of education:

> I have to spend more time reading stuff and going through things and that it might take me a little longer to comprehend what's being taught but that's more normal because of the amount of material and like the level of what it's taught. (Deborah)

Students found that the actual level of difficulty and intensity varied. It was common to hear that participants found "some courses [to be] a lot easier than others and, and others a lot more difficult" (Paul) and that "it really depends on the courses" (Luke). Naomi was able to help explain that "a lot of it was the subject matter" that determined the level of difficulty. In other cases, the level of effort and challenge experienced was impacted by the strengths of the participant and any classes that felt easier "might be just based on naturally things that I like and I'm good at" (Deborah).

Six of the participants in this study also had experience with taking DE courses from other institutions. They were able to use those experiences as a baseline for setting their expectations on how much effort would be required and, as Matthew summarised, found them to be "pretty comparable…with any college course I've taken before" (Matthew).

5.4.3 – An Increased Level of Challenge Over High School

A consistent theme throughout the interviews was that DE courses, and the experience of being in the DE program, was more challenging when directly compared to high school courses. Naomi remarked, "these [DE] courses were as or more challenging than my high school courses." This increased challenge was not a surprise:

> …compared to high school, I'd say coursework-wise it's not been extremely difficult in comparison, just maybe like it's supposed to be. It's supposed to be harder. (Sarah)

For several participants, their high school courses were not challenging and required minimal effort to be successful. With DE, participants found that this was not the case and that more effort was required:

> …in high school, I mean, even if I wasn't interested, and didn't put in a lot of effort, I could still do well. But now, that's not the case. (Mary)

> In high school I was one of the kids that didn't have to study for anything and I got all As. So, it's definitely been a little harder cause I've had to get into a routine of making sure that I'm studying for classes and tests and stuff like that, which I definitely think is a good thing. (Leah)

During the focus group, reflecting on what she wished she would have known before beginning, Deborah indicated "I wish someone told me that it would be hard" to which Mary agreed:

> Yeah…I wish there had been someone like who had done it before to kind of tell me like, it's normal that you're struggling and that you feel like you're not doing that well, but you're going to get through it. (Mary)

While agreeing with this, Sarah felt that "…no matter how many people you talk to, you don't understand until you're actually doing it." Professor Smith also suggested this would be helpful step since he frequently hears students say, "wow, I didn't know this course was going to be this hard."

5.4.4 – A Positive Impact of the Increased Challenge

As Leah mentioned, the increased time studying had a positive impact and ended up being "a good thing." Other participants also commented on how the increased level of challenge over high school was not only expected but was actually a positive factor in their DE experience and they have "enjoyed that challenge" (Elizabeth). For Joanna, her experience has pushed her beyond her comfort level and has helped her maintain interest in her studies:

> …they're like comfortably challenging…this is just beyond my reach and I can like grab it and then it's just always another step and it's, it keeps me interested, I guess. (Joanna)

Elizabeth and Joanna recognise there was an increased level of challenge and this produced positive benefits. There were some participants who were looking for a more challenging environment than high school was providing. Elizabeth

noted that she felt “prepared” and “was ready to jump into something that was harder.” The increased effort was actually a reason that some were attracted to the DE program:

> I definitely think they’re challenging…it’s pushed me to learn more and to do more…and that’s part of the reason why I came to do dual enrolment was because I wasn’t feeling challenged in high school and now I am. (Leah)

Related to the changing levels of effort, both expected and experienced, various challenges and factors were presented as participants moved from SLEs to PSLEs. The next section will outline these additional transition challenges expressed by participants beginning with managing and negotiating schedules.

5.5 – Navigating Different Learning Contexts

5.5.1 – Managing Schedules and Planning Ahead

The challenge of creating, maintaining, or adjusting a schedule to support their DE courses was prevalent among participants. Professor Bates expressed concern for students as they are “caught in two different worlds” which can lead to frustrations. Matthew described his challenge with negotiating the block schedule of high school, where the rotation of classes is prescribed and content is covered in more granular units each day, compared to the DE framework which is more open and provides larger portions of content at a time. Matthew was clear that it was “tough to get used to” as he learned to more independently navigate the different schedules and mix of course rhythms:

> Normally in high school…I love when it’s a set time, set blocks, everything like that. You have a certain time to go to the course and then most of your coursework is done and you have homework, you know? And then everything’s mixed together with the dual enrolment…it’s tough to get used to it. (Matthew)

Leah described how it was “really difficult” making the adjustment to DE and “having to figure out when I’m going to get stuff done.” Adjusting to a new approach and schedule that accounts for weekly due dates in DE compared to the daily due dates in high school was “really time consuming” (Ruth) and “pretty hard…it’s definitely been different” (Paul). Luke also struggled with

needing to adapt to the different structure of how homework was assigned and completed in DE courses:

> …high school teaches you rather different when it comes to dual enrolment. Because most of the time I would just get the homework done right on the days it's assigned [in high school]. So, when I came in and did dual enrolment, I was probably like the first two weeks I kept on forgetting due dates. (Luke)

Esther found that she needed to spend "more of my time studying than I did in high school" which required her to be more intentional about building a schedule to preserve sufficient time for her coursework. Professor Olson acknowledged this issue since "there isn't a set schedule" in her class and sometimes students aren't ready for the "classes to require outside work" including weekends.

Since most DE students are simultaneously active in both secondary and postsecondary learning environments, there is a need to concurrently schedule time for both DE and high school coursework, and managing time effectively to continuously prioritise coursework was challenging but necessary. In John's case, he listed "making sure you get both types of work done" as one of his top challenges. This complication was compounded for participants taking multiple DE courses at a time. Mary and Rachel, who were each taking four DE courses, mentioned that a challenge for them was being able to prioritise between various courses to make sure they all get attention and fit into a schedule:

> …finding time for all of my courses and all the coursework I need to do for that. And not just prioritising one of them, but focusing on all of them. (Mary)

> …it was finding times where, oh, I'm really busy this week, but I clearly need to devote a specific and amount of time to each class or so knowing how to fit that into my schedule. (Rachel)

In addition to the challenge of adjusting to the need for developing new planning and scheduling approaches during the DE transition, participants also shared they experienced challenges with establishing a connection with their DE instructors which will be presented next.

5.5.2 – Connecting with Instructors

Participants commented on how their experience attempting to connect with instructors impacted their transition to DE. As a high school student, Sarah felt intimidated by higher education professors thinking of them as "bigger and better than high school teachers." She went on to describe the variety of experiences and levels of success she's had noting that sometimes "you can really connect with the professor" and sometimes "there's kind of a disconnect." Ruth found it to be stressful and even "nerve racking" at the beginning of a course before she knew her professor:

> …with my very first class that I ever had; I would like be kind of stressed about my first assignment because I wasn't sure like what a college professor would be like…it's kind of nerve racking to submit things to a professor before you know what kind of professor they are. (Ruth)

However, once she was able to establish a connection with her instructors and understood what they valued in their course, she would try to "cater" her work to them and even change her approach, like a "chameleon," to focus on the instructor's priorities:

> …it's kind of being a chameleon a little bit…once you kind of figure out what kind of professor you have and what kinds of things they prioritise, then you can, I don't know, cater to the things that they value too. (Ruth)

Lack of Direct Access

All participants had taken at least one DE course online. This modality presented additional transition challenges with a lack of direct access to their instructor as they were accustomed to in high school. Paul felt the limitation when it came to getting his questions answered as easily as he was used to:

> I think the difference with not having teachers to go in and see every day where you can ask questions daily or asks pretty much whatever questions whenever you want, um, was kind of challenging. (Paul)

When the subject matter felt unclear or abstract, Naomi expressed that the lack of direct, face-to-face instructor interaction, along with relying on more text-based instruction, made courses feel more difficult:

> I'm taking a lot of online courses and so sometimes it is difficult, especially if it's more abstract concepts and things like that, or something that could just be better explained by having a human there instead of reading text…not having that face-to-face interaction does make some classes more difficult. (Naomi)

In the online environment, Abigail lamented that "not having like a professor or somebody like right there" to explain things was a top challenge. That lack of direct access forced her to work through email to have concepts explained more clearly. In Professor Smith's experience the "lack of ease of communication" was very challenging. For Professor Bates, the lack of direct contact felt like it created a "barrier to trust." He described that he wants students to know "that I have their best interest in mind" and that he also wants to know "that they're going to be honest" but this is more difficult to convey online. While there can be challenges with forming connections with instructors, especially when regular in-person meetings aren't possible, when connections are made with instructors they provide positive benefits to the student experience with receiving help and encouragement.

The next section will look more closely at the challenge of gaining a clear understanding of what was expected from participants as students during the transition into DE.

5.5.3 – Determining Expectations

Instructions and Deadlines

Mark experienced unclear expectations in DE coursework regarding what knowledge and information was needed to complete assignments. The transition from high school, where information was directly provided by the teacher, was challenging for Mark since he felt instructions and deadlines in DE were not clear. Rachel experienced the challenge of moving between different courses and described how this can be "confusing" when expectations are not clearly stated:

> I appreciated when they made their different expectations that they had clear. Especially when different assignments are due because if they're at different times that can be confusing. (Rachel)

Figuring Out the Rhythm

Some responses indicated it can take multiple weeks to become settled on understanding expectations. Professor Bates feels that students are basically just surviving and coping the first two weeks until they figure things out. Deborah shared that she might need up to four weeks get into the "rhythm for the course" which is a hard way to start:

> …if a course is like 16 weeks long, I think the first 2-4 weeks, figuring out the rhythm for the course…whether that's just figuring out what the professor's expectations are…figuring out this class needs less time than I thought and this class needs more time than I thought. (Deborah)

This was reinforced by Professor Olson who noted the rhythm, with the ebb and flow of the workload, might be challenging as "sometimes weeks are lighter and sometimes they are heavier compared to high school." Similarly, Mary indicated that she might need up to half of the course, potentially up to eight weeks, until she is able to "figure out like what I need to do to be able to do well in that course."

These participants shared ways they were challenged by not fully understanding expectations or trying to adjust to course pace during their transition. Some participants noted the impact to their ability to complete coursework and assessments. The final section will focus on the topic of assessments and particular challenges experienced by DE students.

5.5.4 – Approaching Assessments

A final type of academic challenge experienced by participants was working through course assessments while in DE. Professor Bates remarked that "students will look at the assignments and they'll think they're very strange" because of the increased focused on application in DE over skill development in high school. A variety of issues with assessments were raised. For Sarah, approaching tests was noted as one of the primary challenges with completing courses because she has "a lot of test anxiety." Luke noted the different format of exams were challenging because they were "more elongated" than high school and felt "really long and drawn out."

The concern for maintaining academic integrity was raised by Elizabeth due to the independent and unsupervised nature of assessments:

> …because it is online, if certain like assignments or quizzes are not open book…it can be easy to look at your notes and look at the textbook during a quiz because the teacher isn't there, like no one [is] supervising you. (Elizabeth)

Professor Smith acknowledged that he's spending more time "policing" students and felt that the temptation to cheat has become "more problematic" for him as "the availability of online "help" sites" has increased. For these DE students, either approaching or completing assessments was one of the significant challenge areas for them as they participated in this program.

In this section, the challenges of managing schedules, connecting with instructors, determining expectations, and approaching assessments were explored. Each of these areas has the potential to impact the student experience while taking DE courses.

5.6 – Summary

The types of experiences shared covered both social and academic elements of the student experiences. A desire to feel socially connected with other students was shared and that it was common to feel "very alone." Both students and instructors acknowledged the additional challenge of establishing connections in an online setting. Closely associated with the desire for community was the desire to feel accepted. Findings showed that students in this program were cognisant of the age difference and were "intimidated" by older students, at least initially, but later discovered this could be overcome. While participants looked to the institution to help them create connections with peers, they generally had to take initiative on their own to establish relationships.

Participants in this study appeared to recognise the need to approach taking DE courses differently compared to their high school context. There was a need to adapt their levels of effort to meet the increased demand of DE courses. Findings showed that there was apprehension about the anticipated level of difficulty. For some, this exceeded their actual experience, while for others it was in line with what they had imagined. There was consensus that DE was more

challenging than high school, which was the experience students expected, but that it varied between courses. Participants encountered a series of challenges related to the learning experiences of navigating different contexts including the need to adjust to a different course structure and schedule which felt "really difficult" until they figured out a "rhythm for the course." The transition also presented challenges with getting questions answered, determining expectations of the instructor, and feeling confident with assessments.

5.7 – Discussion

This chapter explored themes related to the transition experiences of DE students that emerged during the interview process, with a focus on addressing Research Question 1: What are the principal challenges encountered by one group of dual enrolment students in Minnesota, U.S. during the secondary school to university transition experience?

Participants in DE were being impacted and transformed by both social (Sections 5.2 & 5.3) and academic (Sections 5.4 & 5.5) experiences they encountered. They represent a learner profile that is in a constant state of transition positioned at the nexus of multiple environments and contexts (Gale & Parker, 2014; Quinn, 2010). Students experienced what Beach (1999) would classify as a collateral transition as they simultaneously attempted to navigate the "two different worlds" of a SLE and PSLE while in the DE program. In this situation, students can initially misjudge expectations for future engagement and struggle to maintain a sense of what is expected in their various contexts. This can lead to feelings of confusion and ambiguity (Bailey et al., 2002; Maunder et al., 2012). As students in the DE program experienced the "boundary crossing" (Wenger-Trayner, E. & Wenger-Trayner, B., 2015) between their socially situated learning environments they sought social connections (Richardson et al., 2017) while working to establish their identity and sense of acceptance. As this happened, their knowledgeability was challenged, expanded and transformed as they began to take on the "mindset" of being a DE student in order to take greater advantage of learning and social opportunities and become more active participants in the community.

Before beginning in the program, students had imagined what participation would be like along their learning trajectory (Wenger-Trayner et al., 2015). The findings of this chapter showed that they often held an exaggerated view of how difficult the program would be from what they actually experienced. With a sociocultural view of identity formation as "becoming" (Wenger, 1998), the findings showed that as they became comfortable and more experienced with interactions and expectations of being a DE student, they were able to move passed their untrue "walls of expectations" and find increasing benefit and support in the community. When considered through the perspective of peripheral participation (Fenton-O'Creevy et al., 2015b) the speed and depth for which students gain a sense of belonging and of being a DE student will depend on several factors such as their time in the program, their intentionality in engaging with the community, and their future goals and objectives.

Even after time in the program, participants still frequently made reference to the feeling of being alone and learning independently. Within this context, the next chapter will examine how participants managed their learning while completing DE courses.

CHAPTER 6 – FINDINGS: MANAGING LEARNING THROUGHOUT THE COURSE

6.1 – Introduction

As seen in the last chapter, dual enrolment (DE) students are situated in a complex transitional environment that places unique demands on students to effectively manage their learning. As this study is particularly focused on the actions of individual DE learners and how they manage their learning in DE courses, I can consider these actions through a social cognitive lens that recognises individual agency as it is expressed through forethought, self-reactiveness, and self-reflectiveness practices (Bandura, 2006). From that perspective, this chapter will analyse the practices and approaches of students for managing DE coursework at various stages of a course, from the time prior to a course begins through the completion of a course. The sections of this chapter are presented thematically and will explore aspects of how learners prepare to begin activities (Zimmerman, 2013), oversee their progress and make adjustments when necessary (Baumeister & Vohs, 2004; Pintrich, 2000b), attempt to work with their environment to maximise learning (Dembo & Seli, 2013; Zimmerman, 2000), respond to challenges and episodes of low motivation (Pintrich, 2004; Ryan & Deci, 2006), and reflect on effective practices and strategies that support success (Bandura, 2018, Zimmerman, 2013).

In addition, while the knowledge and use of various practices is important for a student's success, it is also valuable to understand how confident students feel in the use of those practices which leads to considerations of self-efficacy (Stephen et al., 2020). Given that self-efficacy beliefs tend to be specific to particular domains and tasks (Bandura, 2012) it is important that student perceptions about their skills are not overly generalised. Section 3.4.3 demonstrated the strong connection between self-efficacy beliefs and the different phases and types of self-regulatory practices (Zeidner et al., 2000) and how these beliefs can be analysed from a social-cognitive perspective (Schunk & Ertmer, 2000). Therefore, attention to self-efficacy beliefs will be incorporated throughout various sections of this chapter.

Collectively, the findings in this chapter help address Research Question 2: How can self-regulated learning help enhance our understanding about the way a group of dual enrolment students managed their university learning?

6.2 – Planning and Preparing to Begin

Through the interview process, it was recognised that participants regularly and intentionally took steps to prepare for a course to begin. The responses centred around three main areas which will be examined in this section. The first area focuses on attempts to gain an understanding of the course itself before the course starts. The second focuses on steps students took to get organised before a course starts. The last area focuses on trying to learn more about the instructor prior to a course beginning.

6.2.1 – Course Matters

Gathering information about the class was an important early step taken by students. They were interested in understanding elements of the course such as the purpose, structure, expectations, and activities.

Course Syllabus and Purpose

To help learn more about a course, participants regularly mentioned going to the course syllabus as an essential source of information. When discussing this in the focus group, Esther referred to getting the syllabus as "the most important thing" for her. Printing out the syllabus was a common step which allowed for easy and frequent access and was helpful for participants like Joanna who would "print out the syllabus for each course" and "read the syllabus like three times." Participants found that the syllabus provided a broad and comprehensive guide to the course and contained information that explained and clarified the course purpose and structure. When asked how she determines what the course will be like, Ruth quickly responded:

> …definitely by reading this syllabus. I look for like the course objectives and whatnot. They usually have those outlined in there pretty well. (Ruth)

Understanding Assessments and Expectations

The syllabus was used to gain a better understanding of expectations about the course and how to complete activities throughout the course. Joanna mentioned that getting a hold of the expectations is "probably the biggest thing" for her and one of the most important pieces of the syllabus. Gaining an understanding about the types of projects, assessments, and assignments contained in a course was a main reason for taking time to read through a syllabus. Rachel used the syllabus to understand specific details on how to "perform" and complete course assignments:

> …like how I was supposed to perform the assignment, or like little details like what the word counts, or how the essay should be formatted…all the details that were in the syllabus I found to be helpful. (Rachel)

In addition to understanding how to complete assignments, participants desired to know how "important" various assignments were by evaluating the grading structure:

> I also write down from the syllabus, in my journal for each class…like how much each assignment is worth out of the total course. Then I can just reference that because I remember wondering how important a certain assignment is. (Ruth)

The syllabus was also used to determine when assignments and exams were due throughout the course. Participants used this information to determine their future schedule for attending to assignments and added details to the planners. Some would take a highlighter to their syllabus to mark these important dates and others would use these dates to help understand how the workload might shift from week to week throughout the course (a challenge referenced in Section 5.5.3):

> I look all over my syllabus and kind of gauge what weeks will be difficult, what will be easier, when to plan my time, what to expect weekly. (Mark)

While acknowledging how important the syllabus was, it was not always available before classes began. Sarah noted in the focus group that "most of my professors didn't give me the syllabus until like a week after the course started" which created an obstacle to preparing. In addition to working through a

syllabus, participants also referenced taking steps to get organised which will be explored next.

6.2.2 – Getting Organised

Another area related to preparing to begin a course was focused on getting organised. Professor Olson's experience has been that if students "have the foundation of organisation skills" they will be successful. Participants were intentional about obtaining course materials to aid their studies and setting up planners and other scheduling tools to assist with managing their time and work.

Course Textbooks and Supplies

Participants indicated that securing any required textbooks was an early priority. Once textbooks for every course were obtained, they were used to determine what each class would cover. There was also attention to obtaining other needed supplies either identified by the course or of the participants' own selection. For example, students such as Joanna would "have a binder for every course" to store course syllabi and other course resources. Several participants described acquiring notebooks and various supplies. Once these items were in hand, they would create an organisational structure with their binders and notebooks. Creating a colour coding system was a common approach as indicated by Ruth who has "a system where I colour coordinate all my journals and pens."

Writing Out a Schedule

When reflecting on strategies and approaches that contributed to their success, the topic of creating a plan and maintaining a schedule was referenced as an important early step in almost all interviews. This demonstrated the value of prioritising coursework and taking time to build a schedule. For Elizabeth, the baseline purpose of the schedule was to capture dates and deadlines for her course(s):

> I'll get my planner out and I'll start marking off specific dates, big deadlines that'll be due so that I have some organisation before the course starts. (Elizabeth)

Writing down assignment details and dates in a planner or schedule provided a single location for participants to visually store and track this information:

> I like to visualise things and so for me, making sure that everything was written down and that everything had a deadline. (Sarah)

In Ruth's case, the desire to have a sense of her commitments and activities was so strong that she created "an outline for every single day" in her planner. Creating a consistent structure and routine was helpful to ensure things get done. Especially when life gets busy, participants found that "scheduling is the biggest thing" (John) to help stay consistent. Upon reflection, Joanna shared how she felt "super successful" because of her efforts to schedule and effectively prioritise her reading and studying before courses begin. Professor Olson's DE students are "thinking about the big picture…the semester as a whole" as they prepare for class and she finds that they tend to deal with issues such as scheduling conflicts "right out of the gate."

These responses illustrate how effective planning before a course began helped DE participants prioritise their coursework and activities to be well prepared. Another area where participants indicated they devoted time was to learn more about their instructor.

6.2.3 – Knowing the Instructor

Participants were interested in trying to get a better understanding of the instructor and getting a sense of the instructor's personality, determining how "strict" the instructor would be, and even if they might be a good fit for their learning style. Students desired to better understand what the instructor expected of them as a student and of the class. Mary felt that "figuring out what the professor expects and how to meet that" was one of her top challenges since topics and expectations weren't always clear. While Joanna was working to understand her professor's standards, she proceeded with what she assumed was the standard built from the "limited interactions" she had:

> I just kind of have to go on what is the standard in my head and then what I think based on my limited interactions with the professor, what they would like or want to see from me, I guess. (Joanna)

Even though Joanna's approach was to use what was in her head, that gave her a starting point which could be adjusted going forward. This type of ambiguity was common at the beginning as students tried to determine what content was going to be covered on assignments and what level of quality was going to be expected. From Naomi's experience, this type of ambiguity was a challenge that was compounded by the fact that expectations can change from course to course (similar to the level of variation outlined in Section 5.4.2):

> There is quite a bit of variation and a lot of that is what courses they're teaching…even in the same class there's a lot of different expectations depending on the professor. (Naomi)

Participants used an assortment of options to get information about their instructor and the courses they are teaching. Some tried to learn this from former students:

> …if I know students who took that class like the previous semester, or if they've done things with that professor before, just asking like usually what are their expectations. (Deborah)

Some turned to websites or external sources where instructors are rated by previous students to get insights about the workload they require and what their personality is like. These methods are examples of steps students would take to understand more about their instructor before a course begins.

The following section will explore participant self-efficacy levels related to preparation and creating a plan.

6.2.4 – Confidence in Preparing to Begin

Participants were asked about their confidence levels in being able to create a plan to help meet their goal(s). Of the sixteen participants, twelve indicated they had strong or high levels of self-confidence in doing this. For some, this was their top area of confidence. Comments such as "it's probably like my most confident area" (Ruth) and "I can do just about anything as long as I plan for it" (Abigail) were common.

Four participants did not feel strong in this area overall. In some cases, there was greater confidence in making short-term plans, such as for a week, compared to longer-term plans, such as for a month or even longer. A few responses indicated this has been an area of growth. For example, Rachel acknowledged that sometimes she would "forge ahead" without a clear plan but that she is "working on" developing this area:

> I think maybe some of the courses have forced me to be more that way [a planner]. Or I would maybe sometimes, yeah, in specific situations just kind of forge ahead and like figure out the details as we go… definitely still working on it. (Rachel)

Some participants recognised that their ability to plan has improved over time as they've taken DE courses. In Leah's case, confidence with planning has improved and moved from an area she "struggled with" originally to a place she can "enjoy" now:

> I've become a lot better at that this year than I was last year. Last year I struggled with that a lot. But this year I'm finding that it's really helpful for me and that I actually enjoy doing that and being able to see that I can reach goals that I have. (Leah)

For some participants the area of planning does not come naturally and was a source of stress. Mary shared in the focus group that she had "a lot of like self-doubt at the beginning." However, she has seen the value of planning and her confidence has grown to the point where she now feels "empowered" to try more challenging things:

> …I guess part of it is like knowing that I don't really want to make a plan and that it's boring, but just pushing through for like 15 or 20 minutes to like come up with something…I know it'd be worth it later. I guess my confidence in myself has grown a little bit, but it's like the, the little bit of confidence has empowered me to be like I can, I can keep taking harder courses or I can take more things that challenge me. (Mary)

This section has demonstrated how taking time to begin well, whether by focusing on course matters, getting a better understanding of the instructor, or getting organised with materials was a common experience by participants. Many participants felt confident with their ability to create a plan; however, high levels of confidence were not consistent across all students. Although

confidence levels may have started low for some, over time and with practice, they were able to grow. The next section will explore what steps participants took after a course began to help keep track of their progress.

6.3 – Keeping Track of it All

After a course began, students shifted their focus and attention from planning and preparation to continually engaging with course activities and experiences. Interview questions were asked to understand how students kept track of progress in their courses and how they recognised if there were problems with their progress. Responses to these questions revealed three main approaches used by students to keep track of their progress: utilising information on the online course site, using a planner or calendar tool, and creating a schedule to track their progress. These three approaches will be expanded further in this section. Within these areas, opportunities to identify when students were running into problems also emerged. This section will begin with the ways the online course site was used to help keep track of their progress.

6.3.1 – Watching the Course Site

All DE students have access to an online course site on a learning management system called Moodle. When it comes to monitoring progress, the course site was mentioned as a very helpful resource for several reasons. Comments like "I'm always checking Moodle to make sure I haven't missed anything" (Mark) were common. The weekly checklist feature offered on course sites was specifically noted as being helpful for tracking progress. Deborah appreciated how after submitting an assignment, the checkbox would indicate it's complete, so she was constantly "making sure I have all the checkboxes." The instant feedback provided by the course site was helpful for keeping track of what was done and what work remained.

Online Grade Book

Participants also noted that tracking course grades through the online grade book was a helpful source of feedback for monitoring their progress. However, the usefulness of the grade book appeared to be related to how quickly instructors would post scores and feedback. If instructors posted promptly, the grade book was a great asset:

> …some of my teachers are really fast at grading and some are slow, so it just depends on the course. If they put [grades] in fast, I mean, I'll make sure everything's up to date in there and I didn't miss anything. (Matthew)

If instructors posted grades more slowly, or not at all, the value of the grade book was diminished. In the focus group, Esther described an experience of feeling "in the dark":

> I was checking Moodle. I was thinking I was doing well, but not everything was updated on Moodle. And so, sometimes I'm a little bit in the dark about my grades. (Esther)

Sarah responded that she had similar challenges "I feel like, like what you said Esther, Moodle's not always accurate" and that "some professors are super bad at grading things quickly." Professor Bates noticed that students "are obsessed with their grades" and "they want instant feedback" which is difficult to sustain. The grade book was not only used to inform participants what assignments were complete or incomplete, it was also able to indicate their performance level on coursework.

Performance and Low Grades

Information from the online grade book was used by participants to identify if there were challenges or problems with their academic progress. This could be a subtle change in scores across assignments or something more dramatic such as watching to see if "grades are tanking" (Mark) in a course. Naomi liked to review individual scores to assess her progress, paying special attention when grades are low:

> …if the grades of the individual, like little mini projects, the homework I'm doing gets low enough, I'm like, hmm, something is wrong. (Naomi)

Low grades were signs of challenges in a course based on past performance. Leah used scores as a "red flag" indicator about not understanding the material:

> … if my grade starts going down for some reason and I'm doing poorly on assignments, those are normally my, like, red flags that I'm not getting something. (Leah)

Challenges with Looking Ahead

In addition to watching for activity on the course site and tracking grades through the online grade book, participants regularly used Moodle to identify upcoming deadlines and due dates; however, this information was not always accurate and at times might have information that referred to previous semester dates. Mark shared how this discrepancy was challenging and impacted his confidence in trusting the site's information:

> For some courses, they haven't been very clear on deadlines. The Moodle site hasn't said exactly when it is [due] or they haven't updated it from last semester about when it's due (Mark).

Beyond the course site, using a planner, or some type of scheduling tool, to help keep track of progress was a frequent occurrence by participants. Those actions will be examined next.

6.3.2 – Working with a Planner

The use of a calendar, schedule, or planner was frequently cited as a means for keeping track of progress throughout a course. As outlined in Section 5.5.1, participants felt an increased need to use a schedule or planner given the challenges of the different learning contexts. Although there were a few cases when work was tracked by memory or "pretty much just in my head" (Paul), the majority of participants referenced creating a schedule or using a system to track their progress. Some students shifted from relying on their memory to using a planner and found that "once I got the planner, I never missed an assignment" (Luke).

Planners and calendars tended to be updated regularly throughout the course instead of being static tools updated at only the beginning of the course. Like other participants, Naomi took time on Sunday evenings to "make a list of everything I need to do for the next week" and gave herself daily tasks to complete her work. Planners were tools to "write everything down in" (Esther) and to help keep track of every activity "on a daily basis, all the time" (Elizabeth). The use of a planner in this way was also described as adding a real sense of confidence to complete coursework as Abigail felt "I can do just about

anything as long as I plan for it." Although scheduling was valuable, it became clear that exactly how planners were used was not consistent across participants.

Custom Approaches

There was significant variation in how planners and schedules were organised and the approaches used to structure details. Several participants used multiple types of tools simultaneously. For example, Ruth starts with a journal for each class before moving various details over to her planner:

> I have a journal for each class, so I write down all of my assignments in there. Just in a big list…I usually go through on Wednesday and Friday to make sure I've checked off all the things that are due on those days. And then I also write down all the due dates in my journal before they're in the planner so I can check there too. (Ruth)

Joanna found that segmenting planners by educational context (e.g., secondary courses and DE courses) was a helpful approach:

> I have half of my planners for like high school, half is for dual enrolment and…I labelled each class either in a different colour or a different, like with a heading, and I'll just try to do at least one assignment a day. (Joanna)

The specifics of what was tracked in each planner tended to be tailored to the participants' needs and preferences. The format and structure of commercially available planners didn't meet Sarah's organisational needs so she developed her own planner system. This custom design helped ensure that it was more "functional" for her based on when weeks begin and end:

> I just have a notebook…basically like a planner, but I wrote it myself so that it was functional for me. Cause some planners, you know, most of my coursework was due on a Wednesday or Friday and sometimes having all the days the same size for writing space didn't work. So, making my own list was the best way for me. (Sarah)

While several of the planners and calendars mentioned were paper-based, participants also referenced the use of digital apps and online tools to help keep track of their progress. Using the calendar app on smartphones to mark deadlines, and then receiving notifications about due dates, was helpful for

some participants with tracking progress. This was specifically referenced with upcoming projects or exams to help give sufficient time to work on those.

Looking Ahead and Adapting Accordingly

Planners were used as tools to track work yet to be done and allowed participants to cross off those activities once they were complete. As participants have indicated in this section, the work of tracking progress and activities through planners and calendars was often a weekly activity. The most common approach was to look across each course and to make a plan for each day "usually at the beginning of each week" (Paul) or on the weekend before the next week starts. Having a weekly review gave Matthew the opportunity to adjust his schedule and "push something back" if an upcoming assignment required significant time:

> I'll kind of sit down before the week begins and…I'll look through every course of what the week is going to entail, big assignments, you know, and if I have to push something back, what that would be. (Matthew)

Other participants also mentioned how they would review upcoming deadlines and then either attempt to allocate the needed time or adjust priorities based on dates and assignment requirements to ensure adequate time is set aside. Sarah used her planners to identify future work across her courses and then decide if allocating time earlier was necessary to begin making progress:

> I had…six classes. It was like, okay, what's due next. If I had something that was due in two weeks, I know, okay, not going to focus on that cause I know this is due next. (Sarah)

Sarah's planner gave her insights into what was coming and allowed her to adapt her schedule to meet the upcoming deadlines based on what was due next.

Getting to the Most Important Things

In addition to creating a schedule to establish a plan and routine, participants also mentioned that effective scheduling helped prioritise their time. Naomi used this approach to establish a plan since there might not be sufficient time to complete everything:

> I usually make a priority list based on how long they'll take and how much they're worth...so, the things that are worth the most and are the shortest would go first and then just keep on moving up from there…You got the most important things done. (Naomi)

Creating a schedule and plan also helped with prioritising textbook reading by identifying what chapters were coming up and making sure those were covered:

> I figure out like what parts of the textbook I'm supposed to read for the next week and…if I have downtime, I'll read those chapters. (Joanna)

Anticipating Big Assignments and Breaking them Down

Participants also used a planner to identify and plan for big assignments throughout a course. This might happen when multiple courses have large projects due at the same time. Identifying weeks with a heavier workload would provide an opportunity for time to be allocated earlier. Esther used a system that allowed her to track progress at monthly, weekly, and daily intervals to divide the work of larger assignments out over time:

> I do like a monthly planner and a weekly planner and a daily planner. So, I try not to like for a big assignment, I wouldn't like say, okay it's due, let me just do it that one day. I'd break it up and put it in my planner in individual days of like I'm going to work on it for a half an hour this day. (Esther)

Naomi took a similar approach with larger projects and assignments by dividing the work over a period of time:

> …if there is a big project due, usually I break it down into its smallest components. Figure out each, how long each of them is going to take and then distribute them over the few weeks or maybe even a month of when I need to get it done. (Naomi)

Being able to identify these larger efforts would give time to "break it down" in a way that fit into the other work and responsibilities. In some cases, building a plan for completing assignments and larger projects resulted in getting work completed before the deadlines, which was a desire expressed by some participants. Ruth attempted to build "enough time to finish things before the due date" but admitted that following through was not always easy or achieved.

This leads to the next section which explores how keeping plans and sticking to a schedule was challenging at times.

6.3.3 – Sticking to a Schedule (or Not)

Another factor related to keeping track of progress and performance in a course was the ability to maintain a schedule. For some participants, even though they created a plan, it might prove to be unrealistic. This was exemplified in the comment "I'll definitely make a plan beforehand…however unrealistic that ends up being" (Mark). Mark noticed that his plans can be "unrealistic" because it is easy to underestimate the amount of time needed to complete work. He discussed the problem isn't necessarily the plan itself but his ability to follow through.

Other participants noted the increased levels of autonomy experienced through taking DE initially felt like an impediment. This required additional attention to create and stick to a schedule. For example, Leah had previously been "accustomed to having my parents on me about things" and since taking DE has needed to "transition to be like on myself about things." Leah's description of needing to change her approach to track her own work was similar to Matthew's experience. He described the need to take complete ownership since DE courses require students to "manage the courses on your own" (Matthew). This shift aligns with the need to have greater self-discipline, which Professor Smith regarded as the most important trait for DE students to be successful, especially when learning online. The ability to stay current was a key element sticking to a schedule and for keeping track of course progress.

Staying Current

Earlier, the online course site and grade book were referenced as tools for identifying when progress may be lacking. Participants referenced experiences with procrastination and feelings of getting behind in their work which could jeopardise their progress to completion. Professor Smith noted that he regularly works with students who think "I can put things off and things will work out in the end." Matthew recognised that if he didn't "start early enough in the week, then I just don't have the time to get things done" and how getting behind "really becomes a problem, especially with online courses" (Matthew). By

starting late, Matthew recognised that he risked completing his work. John also described the feeling of deadlines "catching up to you" by starting assignments late:

> I get to Wednesday and I don't have the assignment, you know, for Wednesday done, that doesn't happen as much…I suppose I feel if time is, you know, catching up to you, that's when I start to feel like there's something wrong. (John)

Likewise, Mark sensed the danger of falling behind and the impact it might have on his success since "if I miss an assignment it'll start to pile up." Luke found that staying current was a key strategy to managing his workload since "there can be a lot stacked on one day and if you put it off, you know, you could be screwed." Sometimes staying current meant not being able to complete work to the level desired but that it was "better to hand something in than to not hand it in at all" (Esther).

A common approach to staying current was to keep a steady pace of activity and as much as possible complete work promptly. Keeping a steady pace also created an opportunity to potentially get a head start on future work.

Getting a Head Start

Using a planner not only helped some participants keep track of deadlines to stay current, but also gave them an opportunity to potentially complete work early. Luke would try "to set up prior dates before the actual due date and do it on those days" to avoid the "crunch time" that can easily happen close to deadlines. Creating a schedule helped to get ahead on coursework and spread the workload out over time. Abigail made it a point to try "to get everything done ahead of time…so that assignments don't take you by surprise."

Mary found that getting started on work early was hard to do "but usually when I do that, instead of procrastinating, things turn out better." She described her goal of specifically getting a jump start on reading and writing because she anticipated busier days in the future:

> Like if we have a book [and] we're supposed to have a paper due on it in a month I'll start reading that book…try to kind of like, you know, give me more time later on because I know I'll need it. (Mary)

The previous sections described methods used by participants to monitor their progress throughout a course along with examples of challenges they experienced. The following section will examine participant self-efficacy levels with being able to monitor their progress once a course begins.

6.3.4 - Confidence with Monitoring Activities

Participants were asked to describe how confident they felt with their ability to monitor activities in their DE courses. They were specifically asked to address their ability to keep track of the various deadlines and requirements for their courses. Eleven participants indicated they felt they were strong in this area, one less than in creating a plan. The use of a planner was mentioned by several participants as a support with helping them remember when things needed to be done. Elizabeth referenced high confidence levels with using a planner to help her stay organised:

> I use my planner on a daily basis, all the time. That is really my source for keeping myself organised. I'm pretty confident in that organisational…getting things done. (Elizabeth)

Confidence in personal organisation capabilities was a theme that came up in multiple responses. Deborah's confidence was also connected to her organisational capabilities to track papers and deadlines:

> I think that I'm pretty organised with like all my papers and syllabus and stuff. I've always been confident that I'll know when all the deadlines are. (Deborah)

In addition to personal organisation, one of the reasons expressed for high confidence in keeping track of requirements was the uniform structure of DE courses. For example, Joanna acknowledged her confidence was connected to the consistent arrangement of activities, assignments, and due dates with online courses which increased her capability of being able to keep track of work:

> I'm very confident. They're pretty consistent Wednesdays and Fridays… the structure really helps. Now if the structure was different and let's say that there were a variety of different days when things are due, that would throw me off. (Joanna)

Rachel also referenced that although she “wasn't used to the schedule” of DE, after becoming familiar with the consistent “pattern in all these classes” her confidence levels grew as the course progressed. These examples show that there are instances where reliance on an external structure or agent is needed to maintain a sense of self-efficacy in the area of monitoring activities.

Compared to their confidence levels in planning, some participants felt lower confidence levels in being able to monitor various deadlines and requirements. For example, Mark rated his level as seven (out of ten) for monitoring compared to a score of ten for planning:

> I like to think that I keep up with everything, but there are some times…something fell through the cracks…that happens more times than I'd like. That's probably a seven. (Mark)

Mark’s response shows the challenge of maintaining consistency even with his desire to have higher levels of regulation. Similarly, although she took action to “stay on top” of her coursework by writing out a plan, when she got busy, Leah found that she defaulted to her memory:

> I think I'm very capable of that, but I don't do it very often. I do my best to stay on top of that, like by writing it out. But if I end up not having enough time, I don't do that. And it's normally just by memory, which is, it has failed me several times. So, I'm fairly confident, but not entirely. (Leah)

Leah’s comment highlights the difference between being “very capable” of monitoring her activities and the reality of actually staying on top of requirements and deadlines.

In this section I have shown how participants approached keeping track of their progress through various means and with varying levels of success. Watching the course site, working with a planner, and sticking to a schedule, were given as examples of how participants attempted to keep track of their work and progress throughout the course. Similar to the area of planning, participants largely felt confident in their ability to monitor course requirements and deadlines. The use of a planner was instrumental in enabling higher confidence levels for participants as well as the consistency in course structure and

deadlines. Again, not all participants felt strong in this area but recognised this can be an area that grows over time and with practice.

In the next section, examples of how participants attempted to establish a consistent time and the best environment for their DE coursework will be explored.

6.4 – Carving Out Time and Space

Participants were asked if they established a regular time and place for their DE studies. Responses revealed that creating a location for their coursework, or going to a specific location, was a regular practice. While some did have a set schedule, others were more inclined to fit in their DE work where they could. The following sections examine the actions that students took to establish a time and space for their studies, and also why they took those steps.

6.4.1 – Consistency in Timing

Even though participants may have established scheduled time for completing DE coursework, when they actually spent time on coursework could vary greatly depending on many factors. With the exception of weekends, mornings were a common time for working on courses and participants frequently began shortly after waking up. For Abigail, studying different subjects at specific times of the day was based on the mental and emotional demands various courses had:

> I always try to do statistics or math related classes in the morning because I'm less emotional and I think more clearly in the morning. And then things that require creativity, like writing, cause you can be a little bit more emotional with that later at night. (Abigail)

Luke would also pay attention to when his mind is most "active" and ready to engage with DE coursework which seemed to be in the afternoons or early evenings:

> …it's typically…in the middle of the day or it's in the, I would say, early evening…just due to how my mind is active during those times. (Luke)

The reality for some participants was that study times did not occur during their scheduled or desired times. An established time earlier in the day might not be

sufficient which resulted in additional work time in the evenings. In contrast to these examples, some responses indicated “there's no set time” (Mark) and that “it's really anytime that's open” (Leah). These participants did not have a scheduled time and would often just take pockets of time whenever they could find it. Another reality for participants is that their schedules might “look different between each semester” (Deborah) and so the consistency in timing for DE studies might need to change term by term.

In addition to giving consideration to *when* coursework would be done there was also thought given to *where* they completed their work with regard to the location and environment.

6.4.2 – Working in the Best Environment

When asked if they have a regular place for completing DE courses, participants were able to describe a variety of locations and reasons for their selections. Not all participants established a regular location and some took an approach of “more wherever, whenever, [I] can fit it in” (Paul). However, for the majority of participants, completing coursework from home was the most popular option.

The Bedroom and Various Locations Around Home

Studying in their bedroom was a common approach because the participant had more control of that space and found that it was generally free of distractions. The bedroom provided a place where other family members wouldn’t be a distraction or try to have conversations. In other words, going to the bedroom was “a good way to kind of, I guess to put it bluntly, isolate yourself” (John). While the bedroom was a popular choice, some participants listed other locations in their home as a preferred study location. The common goal was to find a place that was quiet to help stay focused:

> I have my own little office set up in the basement…I can just shut the door and it's nice and quiet down here and I have like my own space with my own desk and tools…Keeps me focused. (Ruth)

Esther also found it helpful to have a separate space to achieve greater focus so she can enter her “study mode”:

> …having that separate space where when I go there, I'm studying and I'm in my study mode…having a separate space has been really helpful. (Esther)

When asked further about the reasons for studying at home, participants shared they were trying to avoid distractions caused by friends and people around them. These distractions regularly appeared when they tried to study at school because "there's too many interesting people around to talk to" (Naomi). While studying at home was the most common location preference of participants, there were some who preferred going outside of the home to study.

Alternative Locations for Controlling Distractions

Just like those who prefer to study at home for the sake of avoiding distractions, some participants found that studying at an alternative location provided a better chance to be free of distractions and noise. This could vary from a "spot on the island under a tree [because] it was quiet and there was nobody around" (Leah) or by going "to a coffee shop because my house is kind of noisy" (Naomi).

Beyond selecting a preferred physical location for studying, another way participants mentioned that they liked to create an optimal environment was by controlling the ambience of the space they were using to minimise distractions. Listening to music was a method used by some participants to help them focus and avoid distractions. Deborah found it most helpful to have a playlist of "studying music" to help her focus. However, some participants like John, needed to "turn that all off" in order to "actually focus on the material without any distractions."

This section has shown ways participants completed their coursework with consideration to their schedule and study environments. Responses indicated some regularity to their approach while others were more spontaneous. A common goal was to find a space that was quiet and free of distractions. For some, this was their bedroom while others needed space outside of their room or house to fully engage in their coursework. The next section will explore some of the types of obstacles participants encountered while taking DE courses and ways they attempted to work through those obstacles.

6.5 – Working Through Obstacles

A common experience for students is to occasionally encounter an obstacle that may slow or even stop the process of learning. For example, Professor Bates finds that DE students are often frustrated with technology when taking online courses. In his experience, this usually results in them also being frustrated with him as the instructor. Participants were asked what they did when they felt stuck during a course. Specific areas they were asked to address included what happened when they encountered a problem and then how they dealt with declining motivation. Responses collected were framed around these two areas. The first section will explore how students attempted to persist through challenges. The second section examines ways students persisted through episodes of low motivation.

6.5.1 – Persisting Through Course Challenges

Participants provided several examples of how they persisted when things were unclear or challenging. The major areas identified include attempts to figure out a solution on their own, to seek help from various sources, to try harder and do their best, and at times trying to avoid or minimise the obstacle.

Figure it Out Myself and Just Do Your Best

A very frequent approach, and often the first approach, was to individually try to solve the challenge or work through obstacle. If things were not "lining up," Sarah and others would attempt to "try to figure it out myself" and determine what to do. There were several routes students would take to find information or to help resolve the situation. When participants felt there was a lack of clarity on how to complete an assignment, they would use approaches such as rereading instructions in an attempt to gain a better understanding. Going back to the course syllabus for assistance was used as a method in case some needed information was missed. Students would also take additional time to review and look over their course materials, textbooks, and lectures again. This might require taking a short break between readings to see if "it made sense…the second time around" (Rachel) and in some cases this would need to happen multiple times before things potentially made sense.

Beyond looking at the materials provided in the course, another path taken was to look outside of the course. Online video platforms were a popular destination for looking up information and for trying to understand content. Some participants favoured going to YouTube since those "videos always help" (Matthew).

One of the tactics mentioned to work through obstacles was to make sure they were doing their best and perhaps increase the level of effort. The need to study harder might be revealed through grades starting to drop because "usually that happens when I'm not studying enough" (Esther). Luke acknowledged when things are challenging that there is ultimately only so much he can do and to simply give his best effort because "you can't really go anywhere past that." While students often attempted to solve problems on their own, there can come a point when asking for help is needed. As Naomi stated, "if things aren't working out and after several attempts [and] I can't make it better, then I ask for help."

Seeking Help from the Instructor

Seeking help was noted as a valuable strategy for progressing through DE courses and getting help from the instructor was one of the most common approaches participants identified. When it came time to reach out for help, some participants indicated they would immediately go to the instructor without hesitation. This might happen if there were questions about assignments or if there was confusion and feeling "completely in the dark" (John). Using email seemed to be the most common communication channel used to seek help from instructors; however, response times from instructors were inconsistent. In some cases, participants found professors were "always really good about responding like within 24 hours usually" (Ruth). In other cases, participants experienced much slower timeframes for getting a response. How quickly instructors responded to email was an influential factor in deciding whether to use that method in the future.

For some participants, approaching an instructor for help did not come easily or naturally. The instructor's personality appeared to factor into this as those who were "a little more open, a little more, bubbly" (Mark) were perceived to be

more approachable and easier to ask a question. There was also a feeling that contacting an instructor was "really awkward at the beginning" (Deborah) and required some encouragement. Like Deborah, Ruth became more comfortable over time as she "learned that professors are very accessible and they'll answer your questions when you have them." Professor Olson strived to make sure her students know "we [instructors] are there for them…and I can find resources for you when needs arise." She tries to ensure students develop a "growth mindset" and understand that questions are OK and that "this is a place to learn…not a place to perform."

Emailing an instructor was a last resort for some students because asking a question felt like a disruption and the participant would "hate to bother them" (Luke). Professor Smith experienced this impression from students that professors are too busy and how asking a question feels like a disruption, to which he would always reply "I'm here to help you." Participants indicated that after they established a connection with their instructor, they felt supported and encouraged through those relationships. Deborah noted the help and encouragement she received by professors and faculty has been "one of the things that's really been just so great in academic success." Similar to Deborah's experience, Ruth found that she was encouraged through her connections with instructors. The positive feedback she received on her assessments helped her identify good practices and helped her "push" to maintain her progress:

> I have one professor who will, when we turn good things that he always says like, 'Thank you. I really appreciate the good work that you did on that.' Getting that positive feedback has definitely made me push to keep on doing well. It makes me see the good habits that I have so I can keep carrying them out. (Ruth)

Although participants may experience some challenges connecting with instructors, the positive benefits of a strong connection were evident as well. While seeking help was often through the instructor, other sources and methods were also used.

Getting Help from Parents and Family

In addition to seeking help from instructors, participants noted getting help from parents and family members during their course. Going to parents was a

convenient option, and sometimes a first step before going to instructors, especially for those that were home schooled. Parents were helpful in offering suggestions related to the content subject area of courses and by providing other study strategies for being successful in college.

Getting Help from Classmates and Friends

In addition to going to instructors and family members, participants would also reach out to their classmates if they needed help. With online courses, this was facilitated through a Course Support discussion forum on Moodle where students could post and answer each other's questions. Going to classmates was helpful to clear up confusion; however, using this option appeared to be dependent "on how well I know people in the class" (Deborah). Leah would use this path and would ask friends in the class for help when she struggled with something:

> I've also asked friends in the class, because sometimes it's easier to hear from peers…I try to find the root of that problem and also talk with people around me to figure out what I'm doing wrong. (Leah)

Getting Help from Institutional Supports

Participants also found value in using support options provided by the institution, such as class tutors, for getting help. Esther found tutors to be "the best thing ever" for supporting her courses:

> …this last semester I had tutors for every single one of my classes…it was like literally the best thing ever. And I wouldn't have passed those classes if I hadn't have had them. (Esther)

Seeking a tutor was particularly helpful for courses that were known to be harder. Although tutoring services were helpful, they were not commonly known to be available by all DE students. Matthew was unaware that he could have used this support but wished he "would've done tutoring. I really wish I would've…I didn't know it was available at all." Professor Bates noted that tutoring seems to only be used occasionally and believes when tutors are available and can be scheduled might limit use by DE students.

In addition to utilising course tutors, participants referenced other institutional support channels for getting help. Rachel was able to get help through the

Online Writing Lab (OWL) offered through the university's writing centre, called ALPHA:

> …I think it's called ALPHA OWL. Like if you're having trouble with your essays, like I think there is always someone to talk to. (Rachel)

These responses indicate that getting help was a valuable step for DE students and that support was obtained from a variety of sources. The following section will analyse how participants addressed low or declining motivation during a course.

6.5.2 – Battling Low Motivation

Another challenge participants described was their experience with losing motivation during a course. Participants indicated decreases in motivation could come from a variety of sources including a lack of interest in a course topic, by not having the same level of parent oversight as in high school, or just wanting to be finished with a course. This could happen at various points and could either be a sudden or gradual experience. Professor Smith identified "self-discipline with motivation" as one of the top obstacles he sees students battle and recognises "that's a tough one for some people." Working through low motivation is challenging particularly when subjects aren't interesting:

> That's tough. Yeah, I definitely do better when it's like, when I'm interested in the topic, when my heart's behind it, when it's just something I want to do. (Mark)

Mark went on to describe the connection with how a lack of interest can cause him to "start to slack" and procrastinate on coursework. When discussing the topic of losing motivation with Sarah, she immediately shared that "this happens a lot" and she described a frustrating episode where she had "four days, where I just could not get something done." Building back motivation is not easy. As Leah noted, once it's lost, she hasn't "quite yet figured out how to gain interest back."

Although experiencing low or declining motivation was a common it was not something that all students had issues with. It appeared that for some maintaining motivation with academic work might be an exception as

demonstrated by comments like “in school I haven't really felt that” (Esther) and “I never really ran into this issue” (Luke). In any case, struggling through periods of low motivation can have a significant impact on student progress. Fortunately, participants found various ways to work through this and at times even increase their motivation.

Make it Interesting

In response to her episode of not getting anything done, Sarah went on to share that she used self-talk in an attempt to keep moving forward. Looking for and naming positive things about the course was mentioned as an approach to promote motivation:

> I try and really focus on the things I like about the course…I really like the professor, or one of my really good friends is in this class with me, or I find the material super interesting even though I don’t like writing papers about it. (Deborah)

Trying to connect the content of one course to other courses was suggested as another approach to support motivation. This worked for taking a course subject that itself was “super boring” and turning it into something that was “very interesting”:

> …in the beginning it was super boring and then I'm like, okay, I need to learn how I can apply this to what I'm learning in other classes and kind of like connect them. Then I'm like, oh, this is very interesting. (Mary)

Another approach to increase motivation was to adapt the location where coursework was being completed in order to make the environment more interesting to study in. Sarah was taking online courses so this meant looking for a “change of scenery” to get away from “boring” locations:

> I was just constantly a hermit in my bedroom doing schoolwork, which got really boring looking at the same computer all the time…so I guess for me, motivation came in just a change of scenery. (Sarah)

Thinking Forward About the Future

Just as some participants tried to make connections between courses to keep motivation up, another approach was to connect their immediate coursework with future goals. For Matthew and Mary, this included acknowledging the larger

purpose of why they were taking that particular DE course. This was accomplished by asking a question similar to, “Why am I taking this course in the first place?” (Mary) and leaning on the answer that follows:

> I have to do well and it's going to affect my future, you know, and that can affect a lot of things now, how much I’m paying next year with scholarships and things like that. (Matthew)
>
> …a lot of [classes] I have to take are generals right now, so they're not very interesting. But then I, I guess I also think forward and like, so when I'm done with this, I'll be able to do this other thing. (Mary)

Although the goals varied, from a financial motivation of earning scholarships to progressing to other topics, both examples shared the same starting question that tied the current coursework to future goals. Abigail connected her DE work to her future aspirations as a source of motivation:

> I just know that if I don't get a good grade in this class, then I don't get into the college that I want to get into, which will affect my career and basically the rest of my life. (Abigail)

Motivation was also found in recognising that there were a limited number of days left in the course. In the focus group, Deborah acknowledged she feels a “tipping point” about half way through a course when “I've completed more than there’s left to go.” This provided context that the course wouldn’t last forever and that any problem causing low motivation would eventually be over.

Taking a Break

When motivation was waning, several participants mentioned that taking a short break was valuable. This would give their mind a chance to disengage before reengaging with the content. The break might only need to be a few minutes or just enough time for the mind to “switch off” (John) from that task. Paul also attempted to clear his mind by engaging in other activities:

> …if I find myself getting at, um, bored specifically in the moment…I'll take a brief break from doing the work to…clear my mind, listen to music, do something else for like 15 minutes, then kind of jump right back into it. (Paul)

Esther indicated how important a break is to her since school is always on her mind. She used an approach of mentally taking a "step back" before trying again:

> I take a break just like, just at least mentally because school's usually always running through my mind…But yeah, if I feel myself like losing interest, just kind of taking a step back for a little bit and then jumping back into it. (Esther)

In the focus group, Mary used similar language saying "sometimes I need to like step away from everything." Sarah agreed with this because "sometimes you just get so burnt out, then you're not doing as well because you're so tired." The focus group acknowledged that at times it can be difficult to know the difference between taking a break and procrastinating or avoiding the work.

Avoidance

Another response when facing low motivation was to simply pull back from the work. Naomi mentioned she would try to minimise the amount of time she would spend working on a course:

> …try to make it the least amount of time as possible. If I really hate a course, I just try to get it done and just do enough…don't do anything extra. Try to get it done as fast as possible. (Naomi)

If it were early enough in the course, before the withdrawal deadline, this type of avoidance might be maximised to the point where thoughts about simply dropping the course were entertained. These responses show the variety of approaches participants used as they attempted to maintain progress when battling low motivation. The next section will examine how confident students felt in their ability to continue when presented with obstacles.

6.5.3 – Confidence to Work Through Obstacles

As noted in Section 3.4.3, self-efficacy views (Bandura, 1997) can either positively or negatively influence a student's ability to leverage and maximize SRL practices. Therefore, participants were asked about their confidence levels in being able to control and maintain their performance, particularly when there was a problem or challenge with completing a course. Ten participants felt they were able to do that with high levels of confidence. Common phrases in the

descriptions of their confidence levels included being a “good problem solver” (Leah) and being “good at developing solutions” (Paul).

Several of the participants referenced their sense of confidence came from knowing they could lean on others for help and that they were not alone as shown in these comments “I'm not the type of person that's like, okay, I'm doing this all on my own” (Esther) and “I could find someone who could help me, especially if I can't figure it out on my own” (Naomi). Like Esther and Naomi, Mary described feeling confident about identifying when she needed help and also being able to get support from others, specifically her parents. In these cases, confidence was tied to connections with others and an ability to access and leverage those connections when assistance was needed.

Conversely, some participants recognised the need to ask for help in solving a problem but either struggled with taking this step or hesitated when it was time. In this case, low confidence was associated with being willing or able to take the step of reaching out. Overcoming pride was an example of a challenge that caused hesitation for one participant, “I have a hard time asking for help. I can be pretty prideful when it comes to learning and everything” (Joanna). Similarly, Ruth described this as an area of lower confidence and that she might vacillate with reaching out for assistance. Part of the reason for her hesitation was due to the fact that she didn’t “know if the problem lies with me or them [professors]” (Ruth). This created a sense of doubt which inhibited her from reaching out for assistance.

While several participants expressed confidence in finding solutions, there were also comments that revealed lower levels of confidence for a variety of reasons. For example, there was an experience of feeling confident when being removed from the actual situation, but not “in the moment”:

> I am confident, but when I’m in the moment and I don't know what to do, it can be, it can be more challenging…in the moment I feel less confident, I think. (Elizabeth)

Finding a solution “in the moment” may be when it is most needed, such as needing to find clarity on a hard math concept or working through a writing

assignment. Some participants acknowledged that although being able to find a solution to a challenge is not currently an area of strength, they have seen growth while taking DE courses:

> That's one thing I've probably grown in confidence…but, at the beginning…I wasn't very confident in figuring out how to address problems. (Deborah)

For Deborah, this confidence came from being exposed to support resources at the campus and building relationships with professors and peers.

This section presented some of the common obstacles DE students faced while working through courses along with examples of steps taken to work through challenges and periods of low motivation. Attempting to assign greater value to the work by connecting their current course to future purposes as well as taking short breaks were common approaches. Finally, some of the complexities of being confident in working through obstacles were examined along with reasons why confidence levels might be lower in certain cases. In the next section, I will explore strategies participants found helpful in completing their coursework.

6.6 – Strategies for Completion

During the interviews, participants were asked to reflect on their course experiences and identify what strategies they found to be most helpful in completing their DE coursework. They were also asked to consider how strategies they used in high school (secondary) contexts had changed or stayed the same for DE. The main strategies and themes that surfaced were seeking help from their instructor or other sources when there were questions, even when they were reluctant to do so; creating a schedule that allowed participants to prioritise their time was another valuable strategy; and staying current with courses so work would not "pile up" if time wasn't structured well. These areas have been incorporated into the previous sections of this chapter. The following explores participant responses about their confidence levels for both using and adapting past strategies to future circumstances.

Applying Past Strategies

Overall, generally high levels of confidence were expressed in being able to apply previously developed strategies. Comments indicated the confidence came from being able to identify and use effective strategies from personal experience. At times, the use of previous strategies was automatic, or almost subconscious, while others indicated that this came through intentionally reflecting on and selecting particular strategies from the past. For example, Paul was clear that he evaluated what brought him success in the past and attempted to reuse those methods:

> …that's always been something I've done is a lot of times when…if there's a certain method that I use…that I'll tend a try to repeat if it, I realise that there's success coming from it. (Paul)

Similarly, Deborah described confidence in her capabilities to identify and reuse "old strategies" after taking some time to remember "this is what I did last semester and that made this course way easier." In Mary's case, she had taken time to identify previous strategies that she found to work and wrote them down in a notebook for future reference. This has been useful when she might not be able to easily or quickly come up with a strategy in that moment:

> I knew I had learned a lot about myself and like how I study, but also how my study habits had grown. So, like one night I just sat down and I like wrote all of them, like three or four pages in one of my notebooks and like all of the things I found helpful. So now…whenever I'm kind of lost or I don't like know how to study for something, I go through and I like read that and like, oh, that worked for me that one other the time. Maybe you should try that. (Mary)

Mary's example demonstrates that it might not be possible to identify a specific strategy instantly or from memory, but reviewing possible solutions from the past might reveal an applicable and appropriate solution for the present.

Adapting Past Strategies

In addition to repeating strategies that worked in the past, some participants referenced adapting strategies to their current circumstance. For example, if a strategy worked in the past, being able to "mould those strategies to fit the class" (Joanna) was most helpful. This response highlights how each circumstance presents unique factors and requires sensitivity to responding to

those factors in order to make an effective strategy fit the need. When this type of strategy adaptation was done, the result was not only success in the course but that confidence levels "soared through the roof" (Luke).

In contrast to Joanna and Luke, who were able to take strategies and adapt those for increased success, Ruth described herself as a "creature of habit" meaning that she naturally, and perhaps uncritically, would continue to carry her practices forward. This sense of automatically reusing previous strategies was not uncommon among other participants.

An Area for Growth

When reflecting on taking previous strategies and bringing them to new courses, there were several comments about this not being an area of high confidence for various reasons. Leah mentioned not having strategies from the past she felt she could use:

> I think it wouldn't benefit me very much because I didn't have great strategies in the past, considering I didn't have to work very hard in [high] school. So I think a lot of the strategies that I've been using this year…have been all new and I've had to come up with them this year. (Leah)

Leah's not being challenged or needing to work hard in secondary school allowed her to move through those courses without intentionally developing identifiable strategies. Responses from other participants reflected a similar experience of high school being easy (as described in Section 5.4.3) so they didn't need to think about strategies which resulted in lower self-efficacy levels in this area. Relatedly, the different ways courses were delivered (see Section 3.2.2) also caused lower confidence levels at times. Matthew found the world of online learning "totally different" from his in person high school courses and that any confidence he had in his study strategies from the past would not be applicable.

Confidence in using strategies appeared to grow with experience and that "you're more confident the more PSEO you take" (John). This feeling of increased confidence with DE was found to also extend into confidence beyond just PSEO courses. For example, Rachel started to see confidence in her ability to take strategies developed in managing her online DE courses and then being

able to apply those strategies to “other courses I'll be taking throughout my college career.”

Of all the areas where self-efficacy was explored, the area of reflection showed the greatest variation of confidence levels from participants. There were cases where participants reused old strategies which were found to be helpful and where adapting past strategies brought greater success. However, with the format of DE being online and the disparity in how challenging high school courses were, a lack of confidence for this area was pronounced and identified as an area for growth.

6.7 – Summary

This chapter presented findings from data related to the practices and approaches students used to manage their learning throughout their DE courses with attention also given to levels of self-efficacy in using those practices. Concerning the practices that students utilised before beginning a course, participants demonstrated that they take intentional steps to begin well. This included attempts to better understand the course, their instructor, and get themselves organised. After a course begins, participants undertook methods to monitor their progress in the course by watching the information provided on the online course site, using the various calendars and tools set up while planning for the course to begin, and ultimately trying to maintain an intended schedule of activities. Participants gave consideration to when and where they completed DE activities. While there was consistency in finding a regular time for completing coursework it was not always possible to preserve that across weeks, months, and terms. When identifying what location would best serve their study needs, the desire for a quiet place that was free of distractions was paramount. This desire made studying in their bedroom or a quiet location in their home a preferred location. At various points, participants ran into obstacles that challenged their ability to persist in their coursework. When this occurred, the first attempt was often to try to get through it on their own by reviewing course materials or going to sources outside of the course. Professors were clear that they wanted students to engage with them to get help but found that did not always happen. In some cases, the challenge might cause an avoidance response to either limit exposure to the challenge or perhaps seek to eliminate it. The

issue of low motivation also surfaced as something that inhibits progress. Attempts to connect the course to future goals, taking a short break, and trying to make the experience more interesting were all referenced as ways to combat against low motivation. When reflecting on strategies and efforts that supported their success, participants revealed that seeking help from their instructor or other available sources was valuable for them to address questions. In addition, being able to follow a schedule and not get behind in coursework were key for their ability to complete courses.

Concerning the self-efficacy levels revealed by the interviews, many students generally indicated they had strong levels of confidence in their capabilities to create a plan for success, to keep track of course requirements, to find solutions to problems, and in using strategies from the past. However, each area also revealed examples of challenges and doubt at various points. Confidence was not initially high for all participants but they often found that their levels increased with practice and experience in the DE program. Planning was the strongest area of confidence for the group which appeared to have positive correlations to keeping track of progress and deadlines. The findings revealed that confidence in keeping track of requirements came from internal sources, such as creating a planner, and also external sources, such as the consistency in course schedules and the structure of the course site. Although there were certainly students who felt strong in their abilities to find solutions, thinking of themselves as "good problem solvers," there were also times when students felt uncertain "in the moment" in being able to work through a challenge. A source of confidence in solving problems came from being able to seek and find help from their support network. Identifying successful strategies from the past and reusing them in DE had the lowest overall level of self-efficacy. As students attempted to identify and reuse strategies from the past, they found that old methods would not work in the new environment. This resulted in students either creating new strategies or potentially taking an old approach and trying to "mould" it to the new context.

6.8 – Discussion

This chapter evaluated how DE students participated in courses and provided findings which can be useful in addressing Research Question 2: How can self-

regulated learning help enhance our understanding about the way a group of dual enrolment students managed their university learning? The following discussion will be primarily informed by a social cognitive perspective of self-regulated learning, and other relevant literature. It was clear these students did not simply jump into their coursework but took intentional steps, through cognitive and behavioural action (Pintrich, 2004) to establish plans and systems, such as planners and schedules, to more effectively engage in their courses (Zimmerman, 2013). There were indications that the social environment was an influential factor for participants at times such as seeking help or trying to create an optimal learning environment (Bandura, 1986), which successful learners have been shown to do (Dembo & Seli, 2013). When learning challenges were present, participants intentionally activated strategies to overcome those challenges (Bandura, 1991). This was apparent when participants described using various motivational strategies, which had a strong external orientation (Ryan & Deci, 2006), and were able to sustain their effort (Eisenberg et al., 2004) by connecting their current learning to larger goals (Nilson, 2013), such as completing college and future careers.

In addition, as past performance shapes an individual's self-efficacy beliefs (Bandura, 1977, 1991) and these beliefs play an important role in fostering an individual's ability to engage in various activities connected to one's own motivation and learning (Schunk & Ertmer, 2000; Zimmerman & Bandura, 1994), it was not surprising to see levels increase as students gained experience with the DE program. On the other hand, with many students indicating they held high self-efficacy levels across all areas, there is the concern that some self-deception might be occurring by holding inflated or faulty judgments (Bandura, 1986, 1997). However, even students who felt capable sometimes struggled "in the moment" which was a warning presented by Bandura et al. (2003) about leveraging these skills "in taxing and perturbing situations" (p. 770). Comments referenced a reliance on external sources to support and maintain levels of confidence. These influences can be part of a "self-belief system" (Bandura, 2012) made up of multiple sources. Moving into DE, students found that they could not simply transfer and reuse their old strategies (Beach, 1999) but that they needed to adapt their expectations and methods (Wenger-Trayner et al., 2015). When this was done, confidence levels "soared through the roof."

The preceding two chapters (Chapters 5 and 6) presented findings about the transition experiences of students moving between secondary and postsecondary contexts, how students approached and worked through their courses, and participants' levels of self-efficacy in various aspects of managing their learning experience. The next chapter will provide an expanded discussion of findings from these chapters with consideration of the pertinent literature and theoretical frameworks to address the research questions of this study.

CHAPTER 7 – DISCUSSION

7.1 – Introduction

This study has critically examined relevant literature related to transitions (see Sections 3.2 & 3.3) and self-regulated learning (SRL) (see Sections 3.4 & 3.5) as frameworks for potentially understanding the experiences of a group of students as they navigated postsecondary learning while participating in a dual enrolment (DE) program. This chapter will present an expanded discussion of the findings to more completely address the study's research questions:

1. What are the principal challenges encountered by one group of dual enrolment students in Minnesota, U.S. during the secondary school to university transition experience?
2. How can self-regulated learning help enhance our understanding about the way a group of dual enrolment students managed their university learning?

The chapter will begin with a brief summary of the major findings presented in the previous two chapters. The discussion in this chapter will be primarily informed by the sociocultural theoretical perspectives related to learner transitions (Beach, 1999; Wenger-Trayner et al., 2015) and the social cognitive theoretical perspectives of SRL (Pintrich, 2004; Zimmerman, 2013) with attention given to self-efficacy beliefs (Bandura, 1977, 1986, 2001; Zimmerman, 2000).

Participants drew attention to both academic and social challenges of their transition into DE. Initially, some participants had misconceptions about the level of difficulty of DE courses and they recognised the need to increase their level of effort to match the more challenging context. Students learning in DE have the potential to feel "very alone" when they are online or if they have not integrated well into campus life. Finding community and social acceptance was a priority for many students. Since DE students are several years younger than typical college students, both students and instructors acknowledged that their age difference created a perceived barrier to feeling accepted by other university students. Determining expectations, getting questions answered, and

adjusting to new structures and schedules were also challenges as they were trying to determine the "rhythm" for DE courses (see Chapter 5).

There were many examples of taking steps to begin well, such as creating plans and schedules, getting organised, and attempting to understand the course and instructor better. Once a DE course was underway, various methods were used to monitor progress including tracking information on the online course site, using planners, and sometimes keeping track of work by memory. Almost all participants implemented practices to optimise their learning environment such as identifying a place and time to complete their coursework. When students hit an obstacle in their coursework, they took steps to try to address that challenge. That might include attempting to boost motivation, filling in knowledge gaps about the course content, or reaching out for help; however, instructors noted students were hesitant to contact them for help. When reflecting on actions that contributed to their success, participants identified that seeking help, following a schedule, and staying current were key actions that positively contributed to their ability to complete DE courses. Related to self-efficacy beliefs, participants indicated they generally held high self-efficacy beliefs in their abilities to create plans for success, keep track of requirements, solve problems or address issues, and reuse successful strategies from the past. Conversely, confidence levels in these areas might not always feel high "in the moment." For those with lower confidence levels, time and experience in the program tended to increase their levels. When students would adapt or "mould" an old strategy to the DE context confidence tended to increase (see Chapter 6).

7.2 – The New Transition Experience

As mentioned in Section 1.2, the original focus of this study was to understand the strategies and practices DE students used to manage their learning. During the interview process, aspects of the transition experience were so pronounced that they required further exploration and analysis beyond what SRL could explain. Therefore, additional theories on transitions, particularly those from a sociocultural perspective, were needed to more adequately explain these experiences. This section will locate the findings on the transition experiences of DE students in the relevant literature on transitions, including the sociocultural theoretical frameworks of consequential transitions (Beach, 1999)

and landscapes of practice (Wenger-Trayner & Wenger-Trayner, 2015). These frameworks will help facilitate a nuanced explanation of the students' experiences with DE during the university transition. Three specific themes from the findings will be discussed regarding experiences and associated challenges with participating in multiple learning environments, pursuing legitimacy and acceptance with a multimembership identity, and developing knowledgeability to be successful in DE. The results of this section will take into account the research findings and relevant literature in order to specifically address Research Question 1: What are the principal challenges encountered by one group of dual enrolment students in Minnesota, U.S. during the secondary school to university transition experience?

7.2.1 – Participating in Multiple Learning Environments

The Challenge of Negotiating a Nexus of Boundaries

Entering DE provides a partial shift (see Section 3.2.2) of learning contexts for students who have not fully left their secondary learning environment (SLE) and have not fully entered a postsecondary learning environment (PSLE). In essence, they are "caught in two different worlds" as Professor Bates noted and are learning in a "middle space" (Hofmann, 2012) between those contexts. It is important to recognise that DE challenges the conception of a traditional lateral transition (Beach, 1999) where students experience the irreversible move from a SLE to a PSLE in a single direction. Instead, experience in DE, where students concurrently engage with these two historically related contexts, can be more appropriately understood as a collateral transition (Beach, 1999) which is highly negotiated and multidirectional. The DE program positions students with a series of overlapping boundary crossing experiences (Wenger, 1998) where each boundary relationship between structured learning environments (Scott et al., 2014) must be negotiated (Wenger-Trayner & Wenger-Trayner, 2015). Comments from participants about the concern of feeling lost (see Section 5.4.1) show that they recognise there will need to be new ways of participating in courses, not previously experienced, as a result of regularly crossing the nexus of boundaries. For example, this may represent the first experience with an online learning context for students which can feel foreign, or as Matthew stated was "totally different" from his in person high school courses (see Section 3.2.3).

The Challenge of Exaggerated Misconceptions

There is also the shift from what participants had experienced in their familiar SLE to an unfamiliar PSLE (see Section 3.2.2). Since the experience is unknown, there is an element of imagination (Wenger-Trayner & Wenger-Trayner, 2015) that students have as they attempt to create a picture in their mind of what participation in this environment might be like. A risk with establishing thoughts and feelings based on imagination is that they can be built from stereotypes and create misconceptions. For example, participants shared examples of apprehension when entering DE thinking it would be "horrible" and likened it to heading into "unknown territory." Initially Elizabeth thought DE courses would be "really hard, really, really, really time consuming" and later described how what she experienced was not as hard as she imagined. This is a common misconception that students can have and was also acknowledged as a challenge by instructors. Similarly, Ruth described how "nerve racking" it was to submit her first assignment since she wasn't sure what a university professor would be like. Wenger-Trayner and Wenger-Trayner (2015) suggest that these "imagined futures" can be full of tensions, fears, and uncertainties. This is particularly true with the type of non-linear transition experiences these students face as they regularly move between various contexts (Gale & Parker, 2014; Quinn, 2010). In order to reach full participation in DE, participants will need to confront and reconcile discrepancies between their imagination and reality (Maunder et al., 2012).

The Challenge of Adapting to New Contexts and Increased Demand

Changing learning environments can create feelings of insecurity in students who are uncertain of their ability to transfer skills (Beach, 1995; Wisneski & Ozogul, 2019). The findings showed a variety of ways students experienced the disjunction (Fenton-O'Creevy et al., 2015a) of boundary crossing as they wrestled with adapting to the new structure and level of effort presented in DE (Dembo & Seli, 2013). Learners taking courses online can feel anxiety with the challenges of a new sociocultural context (Abdous, 2019; Bates and Khasawneh, 2007). For example, developing trust with university professors can take time and can be even more difficult in an online context (see Section 5.5.2). Feelings of unsettledness, especially at the beginning of their courses, were common when students were "basically just surviving and coping" according to Professor

Bates. This challenge was manifested by the increased level of autonomy required, (see Section 5.5.1), different expectations from course to course (see Section 5.5.3), and reliance on text-based instructions about the course and activities which was significantly different from SLE experiences (see Section 5.5.2). Matthew described his challenge of managing different course schedules with the feeling that “everything's mixed together with the dual enrolment…it's tough to get used to it” compared to the block schedules of high school.

The need to concurrently schedule and correctly prioritise both DE coursework and high school coursework was compounded for students taking multiple courses, which is one of the reasons participants referenced using the course syllabus for assistance. Almost all participants spent time early in their course to study and review the course syllabus (see Section 6.2.3), which served as an example of an “artifact” (Beach, 1999) or “boundary object” (Wenger-Trayner & Wenger-Trayner, 2015), to better understand the structure of the course and address points of confusion or ambiguity. Likewise, participants sought a connection with their instructor to help broker the transition (Kubiak et al., 2015b) to more fully understand what was expected of them as a student. An effective brokering relationship can recognise where students are, identify what is needed, and provide assistance in support of the learner’s intended goal(s) and intended longer-term trajectory (Wenger, 1998).

Additionally, there was an adjustment to the increased level of effort since DE courses required greater effort than high school courses (see Section 5.4.3). Interestingly, for some participants, the increased challenge had a positive impact on their learning and levels of interest. This was true for Leah who felt DE “pushed me to learn more and to do more.” These comments reflect the notion of Vygotsky’s (1978) Zone of Proximal Development and learning something new that was “just beyond my reach” (Joanna). Specifically, the support of instructors was mentioned as a resource that helped “push” participants to maintain progress in harder courses. Students who are constantly navigating boundary crossings can easily experience a sense of confusion since they need to reconcile various demands (Kubiak et al., 2015a) along with their own sense of identity. Fenton-O’Creevy et al. (2015b) suggest that “the work of

reconciling different aspects of our identities is not just a feature of transitions; it is a consequence of multimembership" (p. 33).

7.2.2 – Pursuing Legitimacy and Acceptance with a Multimembership Identity

The Challenge of Accommodating Various Trajectories

Education is a social experience and is influenced significantly by the peers associated with the learning context (Vygotsky, 1978). Finding community is an important part of a learner's success for being able to establish their identity and feeling of legitimacy within an environment (Wenger-Trayner & Wenger-Trayner, 2015) which can ultimately support a sense of belonging (Crafter & Maunder, 2012). The level at which students desire to establish of sense of belonging is influenced, in part, by their learning trajectory. These trajectories represent the imagined path that students are taking through educational environments to reach their goal(s) and are incredibly influential for the types and level of engagement, experiences and commitment (Kubiak et al., 2015a) students desire and seek out. A sociocultural perspective of educational institutions recognises that "learners and social organisations exist in recursive relation to one another" (Beach, 1995, p. 104).

Various trajectories (Fenton-O'Creevy et al., 2015b), or intended plans for after high school, were communicated by students (see Table 2, Section 4.5.2). Assessing the trajectory classifications of participants in this study, as outlined by Fenton-O'Creevy et al. (2015b), can help inform and understanding of their commitment and desire for engagement. The learning trajectory of the nine participants planning on attending a different institution after high school would be classified as a "Sojourner" since they are passing through DE on their way to the postsecondary school they selected. One participant indicated no intention of furthering education after DE and would be classified as having a learning trajectory of a "Tourist." The six participants that indicated they are planning to attend the same university after high school would be considered "Apprentices," which is closely aligned with the classic learning trajectory of legitimate peripheral participation (Lave & Wenger, 1991).

Trajectories can impact the student experience in a number of ways. Academically, having a clear vision of a future trajectory helped strengthen

commitment to maintaining progress when motivation was waning (discussed further in Section 7.3.6). For example, Abigail was able to assign higher value to her current coursework by understanding the value and impact to future opportunities stating, “if I don't get a good grade in this class, then I don't get into the college that I want to get into, which will affect my career and basically the rest of my life.” From a social perspective, participants referenced that Connection events (see Section 5.2.3) offered by the institution were events specifically for DE students to establish relationships with others. A Tourist would typically have lower levels of participation and would have less motivation to engage with these events compared to an Apprentice (see Figure 2, Section 3.3.4), and findings showed that some students had a strong interest in these events as part of their experience. When Apprentice students intersect with Tourists there can be frustration and disappointment with the lack of engagement. While participating in DE, learners are impacted by the academic and social experiences they encountered, such as Connection events, which both develop and transform their learning environment by influencing the institution’s decisions about the types of experiences to provide and how they are offered. This arguably creates a developmental coupling (Beach, 1999) relationship that influences and changes not only the individuals involved but also to the very nature of social activities offered. This type of coupling almost certainly has an impact on the boundary crossing experience and also on how individuals connect with others.

The Challenge of Gaining Acceptance and Belonging

Transitions can often be described in emotional terms (Christie et al., 2008) and these types of “emotions are a commonplace consequence of the identity work that goes on in the transitions across boundaries in landscapes of practice” (Fenton-O’Creevy et al., 2015b, p. 41). Mark and others expressed concerns about being “judged” by their university peers because of their age and the fact that they were still in high school. Mary also acknowledged the feeling that DE students are “not normal college students” which created barriers to feeling like they belong (see Section 5.3.1). These thoughts created negative “walls of expectations” that participants would not be accepted by their university peers.

The ability to be accepted as a DE student, within the larger postsecondary community, did not develop immediately. As Kubiak et al. (2015a) noted, “sometimes identification lags behind participation” (p. 79). In this case, participants needed to spend more time in the program in order to legitimately feel like they belonged. As time went on, participants found that their initial feelings were largely based on inaccurate misconceptions. Through their participation in additional courses, it became clear that students became more confident in themselves and had a stronger sense of their identity which allowed them to find increasing benefit and support in the community (see Section 7.4). A sociocultural view of identity formation shows these participants were on a path toward “becoming” (Wenger, 1998) a type of community member who is able to meet their outcomes and engage more fully, perhaps what Kubiak et al. (2015a) would describe as holding a hybrid identity.

The Challenge of Establishing Social Connections

The need for individuals to establish a sense of community and belonging is "particularly acute in times of flux, stress, and transition” (Strayhorn, 2012) such as the boundary crossing experiences of DE. The sensation of feeling “very alone” was not uncommon for these students (see Section 5.2.2) which Peacock et al. (2020) point out is a frequent reality of online learners. This feeling, within the context of the daily transition (Hughes et al., 2010) experience of DE students (Quinn, 2010), can work against any feeling of connection or acceptance. As students experience this regular transition, they must face the “challenge of crossing and re-crossing identity boundaries” (Fenton-O’Creevy et al., 2015a, p. 53) and will need to be prepared to develop and maintain new kinds of social relationships (Karp, 2012). For example, Sarah was disappointed with the level of socialisation she experienced in DE and that initially she did not feel connected to her classmates. That can be explained, in part, as a product of previous engagement experiences not matching what her imagination was hoping for (Wenger-Trayner & Wenger-Trayner, 2015). This suggests that Sarah and others did not have appropriate expectations for engagement in the DE context. It also suggests that the university should be more intentional about encouraging and developing a culture that fully embraces DE students, a barrier recognised by Kilgore and Taylor (2016), by providing more opportunities and locations for students to form connections. This might look similar to the steps

Professor Olson took to create a “learning community” culture in her class to help students “feel comfortable in their skin in the classroom.”

While connections with peers were certainly made through academic experiences, such as working together in small groups, there were times participants needed to take additional steps to seek and establish social connections (see Section 5.2). For Leah, taking initiative on her own was “the biggest thing that helped” her find community. These steps might involve attending optional campus activities, such as the Connections events mentioned earlier, or reaching out to classmates as opportunities presented themselves (see Section 5.2.3). When created, these new connections proved helpful for a number of reasons. For example, if there was confusion or an issue with a course, peers could help clarify a topic or work through that struggle (see Section 6.6.1). Peer support for these students to “meet their learning, support, and emotional needs” (Fenton-O’Creevy et al., 2015a, p. 57) was an asset in helping them remain motivated. Seeking a connection with instructors was another type of social connection participants often cited (see Section 5.5.2) and was something genuinely valued by instructors as well. This appeared to be particularly true for students with an Apprentice learning trajectory (Fenton-O’Creevy et al., 2015a). For example, Ruth was willing to “cater” her work to meet her instructor’s priorities and even described herself as a “chameleon” to meet that desire. Developing a good connection with instructors can bolster a student’s sense of legitimacy in a learning environment (Lave & Wenger, 1991).

As a consequence of engagement in various communities, participants not only developed their new multimembership identities but were also able to develop and expand their knowledgeability (Wenger-Trayner et al., 2015) which will be examined next.

7.2.3 – Developing Knowledgeability

The Challenge of Embracing a New Mindset

Being successful in a new environment requires knowledge about the standards and norms of how to operate, what Wenger (1998) would describe as “knowledgeability.” Participants indicated an awareness of this concept by referring to the SLE “mindset” that was brought into DE. This mindset includes

assumptions and expectations which are socialised from previous experiences (Beach, 1999). While it is tempting to assume that learners can transfer skills from one setting to another (Wisneski & Ozogul, 2019), transfer is not a straightforward process as previous learning, experiences, and skills (Zeidner et al., 2000) do not always make sense in a new setting (Beach, 1999). Getting a handle on knowledgeability to be effective and successful in DE, such as truly understanding the schedules with coursework, and the need to be proactive in identifying and using available academic supports, can take time.

The Challenge of Surmounting Schedules and Communication

Deborah indicated it could take multiple weeks to really figure out the "rhythm for the course" and Mary shared it could take up to one half of the course until she could "figure out like what I need to do to be able to do well" (see Section 5.5.3). Others mentioned how it was difficult to adjust to DE's approach to assignment due dates compared to the daily due dates that participants were accustomed to in their SLE (see Section 5.5.1). This required new approaches to negotiating and allocating time in addition to effectively using scheduling tools such as planners. It appeared that scheduling was an activity already familiar to some participants which suggests there was a transfer of principles (Bruner, 1977) into the DE context.

Findings showed that another area of negotiation was dealing with the absence of in person contact. Teaching DE online presented a "lack of ease of communication" with students for Professor Smith. This perceived limitation for both instructors and students required new ways of interacting (see Section 5.5.2) such as a reliance on digital communication tools such as discussion boards and email. After time, participants were able to adapt their practices and started to develop "regimes of competence" (Wenger-Trayner & Wenger-Trayner, 2015) that aided their effective participation in DE. This supports the idea that "crossing a boundary always involves the question of how the perspective of one practice is relevant to that of another" (Wenger-Trayner & Wenger-Trayner, 2015, p. 18). As participants adapted, moulded, and brought into alignment previous strategies within the DE context (Wenger-Trayner & Wenger-Trayner, 2015), success and confidence levels "soared through the roof" (Luke). These students experienced a consequential transition (Beach, 1999) as

they “struggle to reconstruct knowledge, skills, and identity” (p. 130) to become something new in order to be more effective participants in DE.

This section has examined various aspects of the DE transition experience and highlighted some of principal challenges they encountered related to participating in multiple learning environments, pursuing legitimacy and acceptance with a multimembership identity, and developing knowledgeability to be successful in DE. The next section will discuss the role SRL can play in enhancing an understanding of how participants managed their university learning.

7.3 – The Role of Self-Regulated Learning Practices

7.3.1 – Introduction

This section will examine findings related to the practices used by participants for managing their university learning to determine if those practices can effectively be explained with a self-regulation framework (Pintrich, 1995; Zimmerman, 1989, 2000) undergirded by social cognitive theory (Bandura, 1977, 1991). As discussed in Section 3.4.1, SRL conceptual models can take various forms with unique areas of focus. Rather than focusing on a single model (Jakešová & Kalenda, 2015), this section will take common elements and principles expressed in Zimmerman’s (2013) and Pintrich’s (2004) models to consider how helpful SRL might be for understanding DE student behaviour and practices. As this study is particularly focused on the actions and experiences of DE learners in a PSLE, I can consider these actions utilising a social cognitive lens that recognises individual agency as it is expressed through forethought, self-reactiveness, and self-reflectiveness practices (Bandura, 2006). The results of this section will take into account the research findings and relevant literature in order to specifically address Research Question 2: How can self-regulated learning help enhance our understanding about the way a group of dual enrolment students managed their university learning?

7.3.2 – Meshing Self-Regulated and Independent Learning

Having outlined the DE student experience through the transitional theoretical lens in Section 7.2, challenges encountered in the “middle space” (Hofmann, 2012) are more obvious. It is easy to assume that if students simply had high

self-regulatory capabilities, they would be successful in that dynamic environment. Many contemporary theorists have made the case that in order to be successful, students today need to be independent learners (Christie et al., 2008; Vosniadou, 2020), or liquid learners (Barnett, 2012), who can seamlessly navigate multiple and dynamic contexts and who can take increasing responsibility for their own learning (Wingate, 2007). Indeed, participant responses reflect a sense of needing to "manage the courses on your own" (Matthew). However, while students may need to find ways to be successful with greater autonomy, their actions, behaviours, and performance are still strongly influenced by society and institutions (Bandura, 1986). Pintrich (1995) argued that students should have strong levels of SRL so they are not disadvantaged, particularly in PSLEs (Zimmerman & Paulsen, 1995). However, students frequently arrive at universities *without* strong SRL skills in place (Bembenutty, 2011b). Findings in this study showed that the increased levels of autonomy experienced in DE can feel challenging. This was recognised in comments where students previously relied on parents or teachers to help them stay on track and how participating in DE required additional effort to create and stick to a schedule (see Section 5.5.1). In addition, although participants desired to find isolated places to study (see Section 6.4.2), that does not necessarily mean they were seeking to learn detached from community. While establishing greater independence and autonomy may ultimately serve a student well, it is an area that must be handled carefully and with consideration given to the needs and contexts of students.

7.3.3 – Forethought: Taking Steps for a Strong Start

SRL models begin with the concept of forethought, or planning, where an individual proactively prepares for success (Zimmerman, 2013). This behaviour is not forced on the learner by an external factor but is wilfully initiated by the individual. The findings demonstrated that participants spent considerable time preparing for their course (see Section 6.2). Common ways participants prepared to begin included accessing and reading the syllabus, understanding details about course expectations and assessments, identifying due dates for activities, and trying to learn more about their instructor(s). They were also intentional about obtaining materials, creating calendars, and scheduling out their time for course activities. These actions support a strong alignment to the preparatory

(Puustinen & Pulkkinen, 2001) or forethought phase (Pintrich, 2004) of SRL models. What wasn't clear is whether these practices were previously established from their SLE or if these were new practices implemented for DE courses. There appeared to be previous knowledge and appreciation for the value of their planning practices which may be the result of the self-reflection phase found later in the SRL process (Zimmerman, 2013). That could explain how they knew that certain activities, like finding a syllabus and developing a calendar, would be helpful as they began.

7.3.4 – Monitoring and Controlling: Accustomising Learning

Similar to how findings revealed alignment with forethought and planning activities, I believe they also indicate that participants were regularly and actively evaluating their progress and taking steps to change strategies when necessary (Baumeister & Vohs, 2004; Pintrich, 2000b). Students can regularly experience a lack of discipline in their studies (Stocker, 2018) so it was interesting and fairly significant to analyse the behaviours that participants used to stay on track. References to using features of Moodle, the learning management system, indicated a strong value in that system's ability to provide information to participants to monitor progress. Because of the desire to leverage Moodle, there was frustration when information on that system was outdated or inaccurate (see Section 6.3.1). Professor Bates felt this pressure to provide rapid feedback to students who are "obsessed" with grades and checking the Moodle grade book. The planners developed by students in the forethought phase featured prominently in their ongoing assessment of work and progress (see Section 6.3.2). The exact approach for how planners were utilised varied which supports the fact that self-regulation is a personalised experience (Zimmerman, 2013).

When participants ran into challenges or obstacles in a course, they found various ways to persevere. This represents an example of how additional regulatory practices were used when normal actions proved to be ineffective (Herman & Polivy, 2004). Examples of specific obstacles experienced included overcoming procrastination and confusion related to course content. Developing time management strategies is a common approach to battle procrastination (Rasheed et al., 2020) and is particularly important as students move into higher

levels of schooling where controlling time has been found to be problematic (Demob & Seli, 2013). Findings in this study showed that participants recognised procrastination as a challenge either because of a lack of motivation (see Section 6.5.2) or because of difficulty in managing time well (see Section 6.3.3). When possible, working ahead on assignments was helpful to combat procrastination along with trying to keep a steady pace with activities to not fall behind. Some participants attempted to increase their own levels of effort (Pintrich, 2004) and study harder. Additionally, if content was confusing, participants utilised various strategies to overcome this issue during the performance phase (Zimmerman, 2013). Participants initiated help-seeking activities such as reaching out to instructors, peers, or family members for clarity or advice (see Section 6.6.1). Both students and instructors acknowledged DE students can be reluctant to contact professors for help, often for fear that professors are too busy to be "bothered" (see Section 6.5.1). Common challenges for students in an online environment include not knowing about options for support (Pedrotti & Nistor, 2019) or not effectively using available support options (Broadbent, 2017). This was represented by participants who could have taken advantage of resources, such as course tutors, but were not initially aware they were available.

Remaining focused on coursework is another important feature of the controlling activity of self-regulation (Bembenutty, 2011b). Findings revealed that participants took steps to remain focused by attempting to eliminate distractions and work in the best environment possible (discussed further in Section 7.3.6). Additionally, participants activated affective strategies, such as using positive self-talk or rewards, like taking breaks (Dembo & Seli, 2013), to support their progress when challenges emerged (see Section 6.5.2). Having a clear understanding of their goals and purpose proved to be helpful motivators when participants faced obstacles (Carver, 2004). For example, Mary would ask herself "Why am I taking this course in the first place?" to be reminded of her larger goals tied to completing the course.

One of the challenges I expected student findings to reveal was that participants ran into technical obstacles and challenges throughout their DE experience. Given the reliance on Moodle, and that many learners were in an online

environment where the use of technology is essential, this was rather amazing since using technology can be a common issue for online learners (Stocker, 2018) and was shared by Professor Bates as an area he finds students often struggle (see Section 6.5). This does not mean technical challenges were not experienced, but perhaps they were not as significant as others experienced by participants.

7.3.5 – Reflection: More than Muddling Through

Participants in this study were able to articulate practices that they found helpful upon reflection of their DE experience (see Section 6.6). What was not particularly clear from the findings is how, or if, students were actively using these insights *during* their courses to inform and improve practices or rather that they identified these practices *after* a course was complete while they contemplated their experiences. SRL models advocate for reflection both as an active step during the time of activity (Zimmerman, 2013) along with after an activity has concluded. Since learners tend to stick with strategies they know (Schunk & Zimmerman, 1998) it takes intentional effort to identify new practices and strategies that are effective in a new environment (Bandura, 2018). Findings suggest participants were able to adjust their approach to be in closer alignment with established standards and protocols (Baumister & Vohs, 2004). For example, Mary indicated how her "study habits had grown" and that she now has additional cognitive strategies to utilise for future courses. Participants were able to identify other activities that have strengthened their ability to participate in DE including how to engage with instructors, access support such as tutors, and create and maintain a schedule to complete work. These align with the types of reflective activities expected of self-regulated learners to productively engage with their environment, activate effective help-seeking activities, understand casual attributions of their actions, and identify strategies for time and environment management (Pintrich, 2004). Another aspect that was unclear from the findings is the level at which participants were operating. For example, SRL can be aimed at smaller scale activities such as individual tasks (Zimmerman, 2013) or larger activities such as entire courses (Zimmerman, 1989). It appeared that participants alternated their comments between different levels of operation and about different types of tasks when reflecting on their participation.

7.3.6 – Engagement with the Environment

Bandura (2006) has argued that the environment is an important and influential force on an individual and the learning experience. Acknowledging that SRL must include recognition of the context (Jakešová & Kalenda, 2015), this section will look at how participants interreacted with their environment while participating in DE courses. Zimmerman's (1989) triadic model of SRL is problematic because of its simplistic representation of the environment. Considering the environmental complexities of a DE program (see Section 7.2), there must be a more nuanced understanding of how a student interoperates within their landscape of practice (Wenger-Trayner et al., 2015). There were indications that the social environment was an influential factor for participants at times such as seeking help (see Section 6.6.1) or trying to create an optimal learning environment (Bandura, 1986). Participants demonstrated the reciprocally influencing nature of an environment (Zimmerman, 1989) by attempting to engage and control their environmental situation in order to maximise learning (Dembo & Seli, 2013; Zimmerman, 2000). This was demonstrated by participants seeking or creating environments that would be conducive to their learning needs (see Section 6.4.2). The specific days, times, and locations where personalised to each learner but they often followed similar patterns of avoiding distractions to achieve and maximise "study mode" and maintain motivation to study.

7.3.7 – The Motivational Drive

Although the topic of motivation was not a primary research area for this study, it is of particular significance to Pintrich's (2004) model of SRL and was identified during the interviews. Battling low motivation can be a challenge students face when learning online (Karkar-Esperat, 2018) and findings indicated this challenge was experienced by participants. For example, the lack of direct parent oversight and increased autonomy appears to have negatively impacted motivation (see Section 6.5.2). Findings also revealed that regaining motivation was not something all participants were able to do as demonstrated in Leah's comment that she hasn't "quite yet figured out how to gain interest back."

As stated earlier, goals are important for self-regulation (Carver, 2004) and effective goal setting can provide a strong motivational force for learners

(Swafford, 2018; Wolters, 2003) to combat periods of low motivation (Pintrich, 2004; Ryan & Deci, 2006). The fact that participants created schedules for their studies provides an insight into the fact that they did establish goals for their work. Some participants were striving for certain levels of academic performance such as earning particular grades (see Table 2, Section 4.5.2) which provided an academic motivational target to strive for. When learning challenges were present, being able to intentionally activate strategies to overcome those obstacles (Bandura, 1991) were apparent when participants described using various motivational strategies (see Section 6.5.2). These appeared to be primarily externally oriented (Dembo & Seli, 2013; Ryan & Deci, 2006) and they were able to sustain their effort (Eisenberg et al., 2004) by connecting their current learning to larger goals in the future (Nilson, 2013) such as college admittance or work force opportunities. As noted in Section 3.4.3, having high levels of motivation is as important for a learner as their self-efficacy beliefs, which will be explored in the next section.

7.4 – Building Up Self-Efficacy

Given Zimmerman's (2013) conceptual model of self-efficacy and its centrality to self-regulatory processes (see Figure 5, Section 3.4.3), it is important to understand the self-efficacy levels of students as they engage in their DE coursework. As there is a strong connection between self-efficacy beliefs and self-regulatory practices (Stephen et al., 2020; Zeidner et al., 2000), the discussion of self-efficacy will be framed around a self-regulatory framework (Pintrich, 2004). The findings revealed that participants had strong confidence levels overall but these were not consistent across SRL phases. This was an interesting juxtaposition against comments regarding the challenge of DE courses (see Section 5.4.1) as summarised by Professor Bates, they "underestimate their abilities and overestimate the difficulty of the course." Participants were most confident in forethought, followed by monitoring and then controlling, with the least confident area being reflection. This type of variation is not surprising as self-efficacy beliefs are specific to particular tasks (Bandura, 2012; Zimmerman, 1989b). Related to forethought, almost all participants attributed increased levels of self-efficacy from the work they put into creating plans and calendars for their courses. With this in hand, Abigail proclaimed "I can do just about anything as long as I plan for it." However,

Bandura (1997) cautions that people have a tendency to overestimate their capabilities. In addition, participant confidence levels were strongly influenced by external factors in some cases, such as the structure of the online course site (see Section 7.3), the positive feedback and encouragement received from instructors, and having a strong support network of family and peers (see Section 7.4). These can be components of a "self-belief system" (Bandura, 2012) made up of multiple sources, both internal and external and will vary by participant.

As Bandura (1991) has demonstrated, past performance influences self-efficacy beliefs. Across each of the self-regulatory areas (Pintrich, 2004), participants provided examples of how they felt empowered as their levels increased, such as Rachel who found that she "became more confident as the courses progressed" and John who shared "you're more confident the more PSEO you take." This is particularly true with students who are entering online environments where previous online learning experience directly impacts self-efficacy (Lee & Tsai, 2011; Wisneski & Ozogul, 2019). Findings also revealed how participants frequently had an easier time being successful in SLEs (see Section 5.4.3) which may have created a false level of confidence going into DE. Not having a consistent sense of self-efficacy was a challenge revealed by participants, such as Elizabeth, who recognised that she felt strong levels of confidence overall, but that "in the moment, I feel less confident." Since research has shown that expectations can alter self-efficacy beliefs (Maunder et al., 2012) it is possible that participants encountered an experience not aligned with their expectation. For example, they may have felt capable of managing their learning but the challenge of the DE environment was greater than what they were expecting (see Section 5.4.2). This exemplifies the warning presented by Bandura et al. (2003) that "it is one thing to possess self-regulatory skills but another to be able to adhere to them in taxing and perturbing situations" (p. 770). I would suggest that the transition experience of taking DE courses would qualify as a taxing situation for most participants.

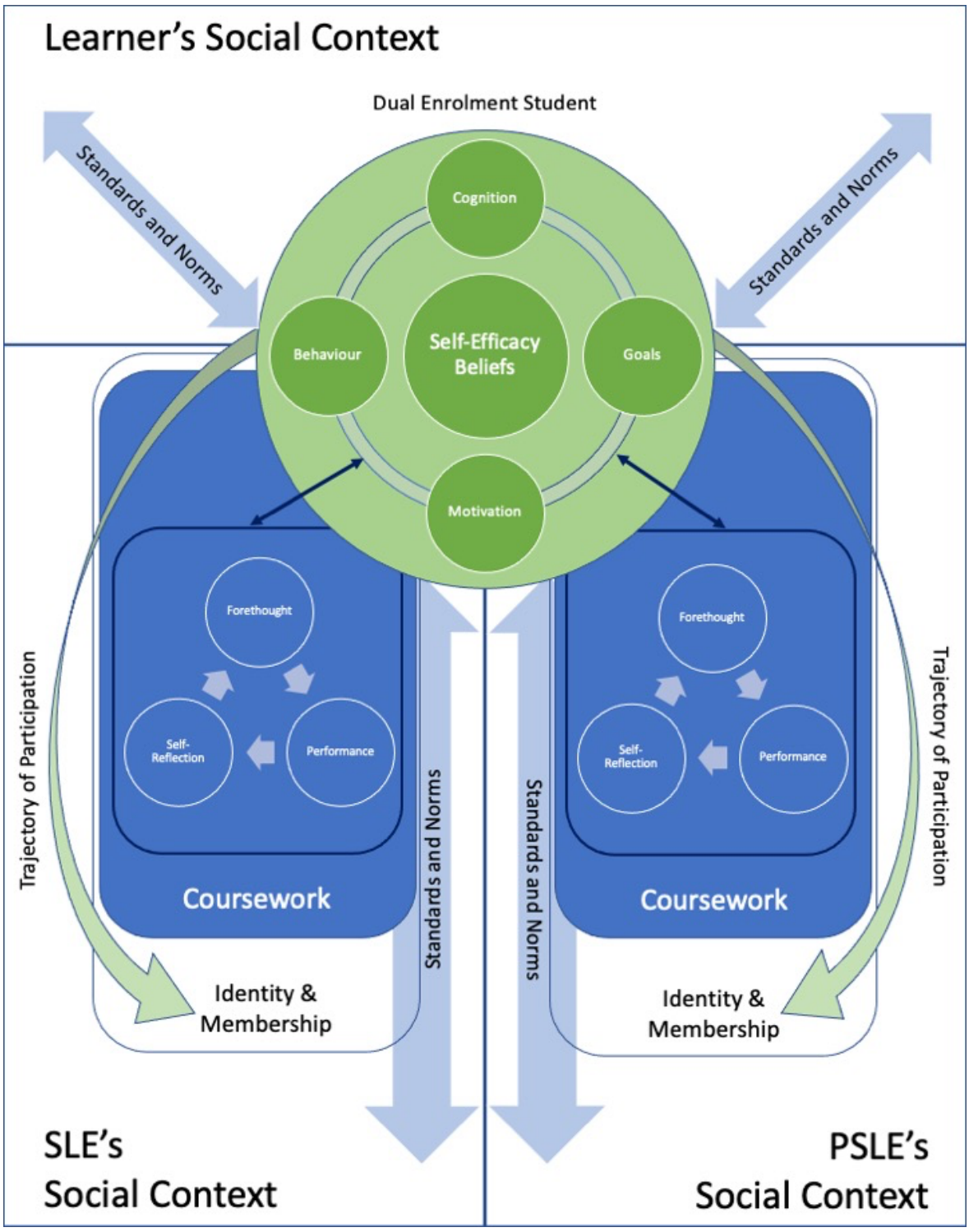
Findings in this study showed how past experiences with DE shaped self-efficacy beliefs (Bates & Khasawneh, 2007). Through the experience of taking multiple courses, students were able to refine their skills, not simply transfer and reuse their old strategies (Beach, 1999), but be adaptive with their methods for

engaging in DE (Wenger-Trayner et al., 2015). When this occurred, findings showed that confidence levels “soared through the roof” (see Section 6.6). Bailey et al. (2002) would suggest that these learners embraced the psychological transition, in this case of becoming legitimate members of the DE community (Lave & Wenger, 1991), which can bolster self-efficacy.

7.5 – A New Conceptualisation of the Dual Enrolment Transition

A new and innovative combination of theoretical perspectives has been developed to conceptualise the transition experience of DE students, specifically on how students manage their university learning while navigating the high school to university transition. This study has shown the importance of considering transition research alongside SRL research in order to more fully understand the DE student experience. Having explored characteristics of the DE experience in the previous sections, it is more apparent now that on their own, no single transition or self-regulation learning theory or model can sufficiently represent the unique learning context of students “caught in two different worlds" (Professor Bates) and how students navigate this complex “middle space” (Hofmann, 2012). Therefore, I have created a new conceptual model (Figure 12), entitled *Learning in the Dual Enrolment Landscape*, that utilises and adapts elements from both transition and SRL theories in order to more comprehensively represent the type of learner engagement taking place in DE. This model demonstrates how DE students navigate their way through multiple learning contexts using elements of SRL during the transition experience.

Figure 12 - Learning in the Dual Enrolment Landscape



7.5.1 – The Dual Enrolment Student

Learner's Social Context

This model recognises that each student comes from a unique social and cultural context (Crafter & Maunder, 2012) that contain various standards and norms which shape the student's perspectives, attitudes, and behaviours (Bandura, 1997, 2006; Jackson et al., 2000; Trawich & Corno, 1995). From a sociocultural perspective, this specific social context can look very different for students coming from similar communities depending on the traditions, practices, and expectations of their family of origin (Vygotsky, 1978). From this starting point, DE learners are simultaneously engaging in both SLEs and PSLEs, although their level and type of engagement will be unique (Gale & Parker, 2014).

Self-Efficacy Beliefs

Each student holds self-efficacy beliefs which are core to the individual's identity (Zimmerman, 2000) and strongly influence their cognition, goals, motivation, and behaviour (Bandura, 1991; Schunk & Ertmer, 2000). These essential processes of SRL (Panadero, 2017; Zimmerman, 2000) are enabled and supported by self-efficacy beliefs (see Section 3.4.3). Research has shown that SRL practices are influenced by self-efficacy beliefs which are both context and task specific (Bandura, 1997). These beliefs are manifested in the process of completing coursework in each learning environment. Through active and ongoing participation in SLEs and PSLEs, the learner's self-efficacy beliefs can be influenced, shaped, and improved (Bates & Khasawneh, 2007; Wisneski & Ozogul, 2019) along with their ability to reciprocally influence the social contexts they are engaged with (Zimmerman, 1989).

7.5.2 – Secondary and Postsecondary Learning Environments

As mentioned in Section 7.2.1, participation in DE represents a partial shift of learning environments where students learn and participate at the nexus of boundaries. As students engage in these collateral learning environments (Beach, 1999), they must go through the process of understanding the standards of norms associated with that context in order to gain the knowledgeability (Wenger-Trayner et al., 2015) of effective participation (Lave & Wenger, 1991). This expands as students regularly cross the boundary lines of these environments (Quinn, 2010) and interact with different communities of learners

(Wenger, 1998). As experience with negotiating each environment continues (Christie et al., 2008), students will develop their knowledge (see Section 7.2.3) which should be constantly evaluated for its relevance, letting go of previous practices and adopting new learning strategies (Abdous, 2019).

Coursework

The use of SRL practices, including forethought, performance, and self-reflection (Pintrich, 2004; Zimmerman, 2013), to successfully complete activities is an essential component of student participation. The practices are specific to particular courses in each context will need to be uniquely managed and coordinated by each learner, understanding that success and competence in one context will not guarantee that in another (Beach, 1999; Wisneski & Ozogul, 2019). Here, the SRL practices activated by the learner (see Section 7.3) can help ensure thoughtful and effective progress is made given the unique timelines, participation requirements, and level of rigor needed for each course, to the point where those practices become internalised (Trawich & Corno, 1995). Self-efficacy beliefs will influence and be influenced by participants' success or challenges with their coursework (Bandura, 1986).

Trajectory of Participation

Wenger (1998) suggests that learners are on a trajectory through their landscape which do not have fixed starting or end points (Gale & Parker, 2004) and reinforces the notion that transitions are ongoing and a state of being (Quinn, 2010). Trajectories through different environments are largely influenced by a learner's longer-term objectives and goals and can involve different forms and levels of participation (Fenton-O'Creevy et al., 2015b). In the case of DE students, those students who are certain they will be continuing at the university would have heightened interest in understanding the standards and norms associated with that community (see Section 7.2.1) and are more likely to allow their identity to be associated with membership in that community, what Lave and Wenger (1991) would recognise as an Apprentice. However, those that intend to move to a different university may have limited interest in fully engaging in the community and would be considered a Tourist (Fenton-O'Creevy et al., 2015b). The unique trajectory of each learner informs their identity and will ultimately influence their desired level of membership in each context.

7.5.3 – Identity and Membership

A student's trajectory and engagement with different contexts requires them to undertake the identity work of "becoming" (Gale & Parker, 2014) which includes their status as a member of the learning communities (see Section 7.2.2). Over time, they will build experiences and competencies for each environment and must negotiate their identity (Wenger, 1998), reconcile their multimembership status, and be able to adjust actions and behaviour for each context (Kubiak et al., 2015a). Professor Olson tries to empower her students and create a culture in her class as a "learning community" to encourage DE students to ask questions and engage since she has observed that these students are not as "relaxed socially" and tend to be shyer and quieter. This is where PSLE professors and institutions can help support the development of a sense of belonging so students increasingly "feel comfortable in their skin." Student engagement in each context will be unique and shaped by the opportunities within the learning environment and will ultimately be aligned with their intended learning trajectory as noted in the previous section.

7.6 – Summary

Through the findings of the study, along with the relevant literature and theoretical frameworks, this chapter has addressed Research Question 1: What are the principal challenges encountered by one group of dual enrolment students in Minnesota, U.S. during the secondary school to university transition experience? and Research Question 2: How can self-regulated learning help enhance our understanding about the way a group of dual enrolment students managed their university learning? As a result, this study has continued research on the role of SRL, especially with considerations for secondary students entering into PSLEs in more dynamic ways, such as through DE programs. The notion of a truly independent learner (Christie et al., 2008; Vosniadou, 2020) was challenged by emphasising the need to recognise social and institutional influences (Bandura, 1986; Vygotsky, 1978; Zimmerman, 1989).

In addressing Research Question 1, findings revealed eight challenges experienced by DE students. These challenges were presented across three distinct but interconnected themes. The first theme, participating in multiple learning environments, identified challenges experienced by DE students as they

crossed boundaries into different environments (Quinn, 2010) which required the negotiation (Christie et al., 2008) of unique experiences, expectations, and context-specific standards of practice. The second challenge of holding exaggerated misconceptions showed how DE students entered with levels of expectations that were often inaccurate, which is common with transitions (Bailey et al., 2002; Hughes et al., 2010). The final challenge of this theme examined how students needed to adapt to new contextual experiences and demands of DE as they adjusted to the increased levels of effort.

The second theme, pursuing legitimacy and acceptance with a multimembership identity, identified how the various and unique learning trajectories of each DE student (Fenton-O'Creevy et al., 2015b) influences their participant efforts, desires and expectations. Some intended to work toward fuller membership (Lave & Wenger, 1991) while others desired more nominal engagement and pursued fewer membership experiences. The second challenge of gaining a feeling of acceptance and belonging demonstrated how being younger and "not normal college students" created barriers to feeling a sense of belonging. The final challenge of this theme showed that social connections with peers and instructors were valued but not easily formed and how it is easy to experience a sensation of feeling alone in the "middle space" (Hofmann, 2012).

The third theme, developing knowledgeability (Wenger, 1998), examined the challenge of participants needing to change their mindset to align with a PSLE and were confronted with new challenges of multimembership in various communities (Wenger-Trayner & Wenger-Trayner, 2015). The last challenge identified how in order to be effective in each learning environment, particularly in the PSLE, participants needed to reconstruct skills and practices (Beach, 1999) to successfully manage new schedules and forms of communication.

With the myriad of factors and challenges facing participants, it is easy to appreciate why regard for SRL strategies is warranted.

In addressing Research Question 2, the findings revealed that there is relatively strong alignment with the practices and phases associated with self-regulated

learners (Pintrich, 2004; Puustinen & Pulkkinen, 2001) and that these can be useful for students participating in DE. Students did not consistently use SRL strategies, which is not surprising given they come from different environments (Trawich & Corno, 1995). Since strategies that work in SLEs may not be relevant in PSLEs (Zimmerman, 2000), students must be able to monitor and control their performance and then reflect on what proved to be effective or not (Zimmerman, 2013). DE students found value in being able to exercise agency by adapting their environment to their preferred learning style or location (Dembo & Seli, 2013). The use of SRL practices were supported by relatively strong, but not entirely consistent, self-efficacy beliefs which affect all areas of SRL (Schunk & Ertmer, 2000) and improved as participants gained experience in the program (Bandura, 1991).

Ultimately, a new conceptual model (Figure 12), entitled "Learning in the Dual Enrolment Landscape," was developed to more effectively account for and represent the transition and SRL aspects at work in the DE experiences of students. This model pays particular attention to several important factors including the varied contexts learners operate in, movement between learning environments, the connection self-efficacy plays to personal attributes and activities, the role of SRL practices in completing coursework, and how a student's learning trajectory influences their identity and engagement within a community.

The implications of this study's findings and discussion will be addressed in the following chapter, along with limitations of the study, areas that warrant further research, and recommendations for future practice.

CHAPTER 8 – CONCLUSION

This study has investigated the high school to university transition experience of a group of dual enrolment (DE) students in Minnesota, U.S. It specifically analysed how they managed their university learning while participating in a DE program. A critical review of the literature identified two gaps in the research, encapsulated in the two research questions which the study addresses:

1. What are the principal challenges encountered by one group of dual enrolment students in Minnesota, U.S. during the secondary school to university transition experience?
2. How can self-regulated learning help enhance our understanding about the way a group of dual enrolment students managed their university learning?

Addressing these questions through the application of selected theoretical perspectives to the research findings of this study has meant that the experiences of a group of dual enrolment students, who are learning in a relatively new and complex educational environment (see Section 3.2), can be better understood. This chapter reflects on the study's findings and research questions, offers contributions and implications of the study, outlines limitations of this study, and provides recommendations for future practice and areas of research.

8.1 – A Reflection on Research Findings and Objectives

Findings revealed that the participants entered DE with various perceptions and expectations about the academic and social elements of the experience. There was apprehension about the demands of the coursework (see Section 5.4) and concerns about being accepted by their peers (see Section 5.3). This speaks to the participants' awareness that a potentially significant transition was going to take place related to crossing the boundary of a new learning environment (Wenger, 1998; Wenger-Trayner & Wenger-Trayner, 2015). The students were coming from a secondary learning environment (SLE) where they had developed knowledgeability for success in that context; however, that did not automatically translate into skills and knowledge needed for success in a postsecondary learning environment (PSLE). Research indicates that the transfer

of learning and strategies from one context to another can be problematic (Beach, 1999; Wisneski & Ozogul, 2019), including SRL skills (Zeidner et al., 2000), and that was evident in this study (see Section 5.5). The desire for connections and acceptance within the community was particularly strong for some participants (see Section 5.2.1) and they looked to the university to provide assistance in establishing connections with peers (see Section 5.2.3). Despite working at a university that offers DE programming, I expected students to operate more like independent learners who could quickly adapt to a PSLE, which is why the study originally focused on self-regulated learning (SRL). I did not anticipate how significantly the challenges and complexities associated with transitions would feature in the experience for DE students. Findings revealed and research supports (Bailey et al., 2002; Christie et al., 2008; Gale & Parker, 2014) that transitions are complex and need to be better understood with consideration to both academic and social factors (Vygotsky, 1978), especially as part of the move into the "middle space" (Hofmann, 2012) of DE where students might feel "caught in two different worlds" (Professor Bates) and can easily feel alone (Peacock et al., 2020).

This study revealed many ways that the participants managed their university learning. As they approached the beginning of a course, it was common for them to take steps to prepare for their course(s). Once courses began, they encountered different standards and types of assessments from their SLEs that required a change in their approach, for example, adjusting to the schedule and pace of DE courses (see Section 6.3). To help work through these types of adjustments, participants utilised various methods to keep track of their progress in the course. As they encountered challenges or obstacles, participants might engage in help seeking activities, but the particular methods used were not consistent (see Section 6.6.1). Having the ability to control their learning environment, such as the time and location of their studies, was important for participants while in DE (see Section 6.4).

In consideration of these types of activities, many of which are aligned with the types of activities that effective self-regulated learners would use (Pintrich, 2004; Zimmerman, 2013), a larger study could perhaps determine whether DE students in general would benefit from being more proficient and consistent in

the application of these skills. There seems to be evidence that enhancing student ability to utilise self-reflection strategies would help to inform and improve their future practice (see Sections 6.6). This would, in turn, strengthen self-efficacy beliefs which could lead to greater academic success (Bandura, 2001; Shen et al., 2013; Zimmerman, 2000).

8.2 – Contributions and Implications

This study attempts to contribute to existing empirical research by further opening the "black box" (An, 2015) of how learning occurs in the DE environment and better understanding the principle challenges DE students encounter (outlined in Section 7.6). The study was strengthened by utilising ideas from different theoretical perspectives to gain a better understanding of the experiences of a group of DE students. On their own, transitional and SRL theoretical positions were helpful but insufficient for adequately explaining the experiences. When used together, their interpretive power was magnified. For example, this study has shown that participants benefited from developing the needed knowledgeability for success in DE as they crossed the boundary from a SLE to a PSLE. It can be helpful to consider the student's learning trajectory when positioning opportunities for connecting with the institution and learning community as some participants cared deeply about forming bonds while others had limited interest. While the use of SRL practices have been shown to support the success of postsecondary learners (Pintrich, 1995; 2004), this study suggests that the benefits extend to DE contexts as well. I would suggest that the effective use of SRL practices by these DE students represents a specific form of knowledgeability that may be helpful when learning in multiple contexts. The culmination of the application of the theoretical perspectives to the study's findings resulted in one of the study's most significant contributions, the development a new conceptual model, "Learning in the Dual Enrolment Landscape," to represent the unique experiences of DE students.

Additionally, the study's findings have presented responses that challenge several positions of current theorists and practitioners. First, there is a challenge to the notion of independent learners (Christie et al., 2008; Wingate, 2007) in today's PSLE. Although participants did have increased responsibilities for their learning, they were not divorced from the standards of the institution

(Jackson et al., 2000) and at times even carried strong desires to create social connections with assistance from the university. In fact, the challenge of establishing connections in DE may inhibit full performance. Second, thinking that SRL skills alone are sufficient for students to succeed in a DE context needs to be questioned. Attention must also be given to the transitional dynamics that students experience. This is particularly true when it comes to the transfer of knowledge and the ability to accommodate standards of the new environment (see Section 3.3). Third, the classic archetype of a university student must continue to be challenged. Research has already shown that the traditional model of a student leaving a SLE and fully entering a PSLE is not sufficient to account for the diversity of today's students (Knox & Henderson, 2010; Scott et al., 2014). DE programs take this even further by bringing in younger students who have different needs, experiences, and learning trajectories (Kubiak et al., 2015a) than students in previous years. These points offer important contributions and implications to current and future research.

8.3 – Research Limitations

Careful consideration was given to the development of this study; however, limitations beyond those outlined in Section 4.8 were noted and are worth highlighting. First, a more robust and expansive set of data might have been captured if the limitations of SRL would have been recognised earlier. The interview questions were primarily focused on SRL and academic success. As it happened, the research questions evolved throughout the process of the study and were not finalised at the time of participant interviews. Had the research questions been settled earlier, the interview questions used may have differed and perhaps allowed a more comprehensive set of questions to be developed. Even though the interview questions were somewhat limited in scope, responses to those questions were not limited due to the research methods deployed (see Section 4.4) as participants were given opportunities to expand and explain their experiences.

Second, instructor participants were added after the student interviews were complete in order to compliment and further situate their responses. Incorporating instructor interviews from the initial stages of the process may have resulted in potential adaptations to interpretations or conclusions.

Third, this is a fairly small case study comprising only 16 students and three instructors from a single university in the state of Minnesota. Therefore, generalisability is not intended to reflect other universities in Minnesota or beyond. A larger sample size, that specifically includes students from various backgrounds and socioeconomic statuses, may support conclusions beyond this study or provide additional insights into the research questions. Another factor related to the participants is that they represented a group that was engaging in DE through of a mix of in person and online learning experiences. It is possible that further segmenting the population by modality could be done and might reveal more nuanced findings.

Fourth, the lack of previous empirical research focused on transition and SRL theoretical frameworks to study DE students prevents a direct comparison and analysis of methodologies and conclusions. Instead, this requires extrapolations into the current study and context.

8.4 – Recommendations for Practice

This study provides several recommendations for practice to increase the support of DE students. It is important to not view DE students as lone learners (Peacock et al., 2020) who are fully equipped and prepared to engage in postsecondary coursework as I originally did. Steps should be taken to ease the transition in the PSLE and support their experience once active in DE.

8.4.1 - Institutional Onboarding and Orientation

Institutions should pursue more intentional opportunities for students to make academic and social connections. For example, offering robust onboarding and orientation activities designed for DE students could foster stronger feelings of belonging and feeling equipped to begin. Participants in this study did not reference going through any specific orientation or onboarding experiences that could have exposed certain mindsets or practices that would be ineffective while learning in DE. Developing an orientation may also help ensure appropriate expectations are in place by covering aspects of the academic and social experience (see Section 3.3.3). This suggests that there is an opportunity for institutions to help remove some of the ambiguity that is common with

collateral transitions (Beach, 1999). Onboarding events could help provide community building opportunities along with suggestions for developing future connections while in DE. In particular, getting exposure to DE instructors, who are highly interested in knowing and helping students, can help remove apprehension about what university faculty are like and what they expect. An onboarding experience could also introduce DE students to what SRL strategies and practices are and how to leverage them as they navigate frequent transitions between learning contexts. Finally, a robust orientation can help ensure that students are familiar with available academic supports such as tutoring and other university resources. The challenge for some dual enrolment students was that these supports were not immediately known as they started the program (see Section 6.6.1).

8.4.2 - Instructor Support

Findings from professors in this study reveal their attempts to encourage student well-being, foster a sense of trust, and creating a culture of learning and belonging. All DE instructors need to be aware that they play a critical role in supporting DE students and by helping them more effectively broker their boundary crossing experience (Kubiak et al., 2015b). This includes supporting areas such as student engagement and performance. For students to be able to effectively monitor their progress, instructors need to provide frequent and consistent updates and feedback to students. These should be provided through the learning management system since students are expecting this system to be current and accurate. Timely updates to the online gradebook are essential since students are looking for instant feedback and this tool is foundational to allowing students to receive feedback, monitor their progress, and respond to performance issues.

If instructors can become familiar with SRL principles, they can encourage the use of those practices with DE students in their class. For example, to help ensure students have taken steps to prepare for their course and have given attention to how they will monitor their progress, which are key SRL practices (see Section 3.4.3), I have introduced a “Readiness to Start” quiz at the beginning of my class. This short quiz includes simple yes/no questions and asks students to confirm that they have found and read through the syllabus, that

they know how and where to receive course communications, and they have a plan, system, or method in place to monitor their progress. Drawing attention to these areas early allows me to ensure students are prepared and to provide support to any students who may not answer affirmatively to these areas.

Finally, instructors can better support the transition into a PSLE by ensuring students have early access to course resources, particularly the course syllabus. Participants repeatedly stated how essential this document was to their ability to start well. Instructors should also consider the organisation of their course site and potentially arrange coursework in ways that are more familiar to DE students. This might include having audio instructions of assignments and establishing due dates that are consistent and more frequent. In my class, I have begun creating video and audio overviews of my assignments to supplement the written instructions on the course site. In addition, I have introduced mid-week due dates to help break down the course workload and have aligned all course assignments to be submitted on the same days and times. These steps are intended to help students more quickly figure out the rhythm for the course and reduce some of the stress and confusion of the transition experienced by participants.

8.5 – Recommendations for Future Research

In addition to providing recommendations for current practitioners, this study also identified several recommendations for future research. Having developed a new conceptual model (see Figure 12, Section 7.5) it will be important for future research to continue the exploration of this model and establish its validity. It is likely that possible enhancements and refinements to the model might be suggested through use with additional DE students in other settings and contexts. This would be in line with Pintrich's invitation as he recognised his conceptual model (see Table 1, Section 3.4.2) should not be considered a finalised approach but can serve as a blueprint for future conceptualisations.

It is possible that the knowledge, strategies, and practices students learn while participating in DE could have a positive influence in their SLE (Beach, 1995). Understanding any potential impact to this context would be helpful, especially knowing if secondary learning was positively impacted through practices

developed while in DE. This would develop a more complete view of the DE transition experience as students frequently boundary cross between multiple learning contexts.

Three expansions of this study could provide a broader data set and insights. First, expanding this to a multi-case study (Gustafsson, 2017) might provide additional empirical evidence. Second, expanding this study by using quantitative methods to, for example, measure the extent that transitional challenges are experienced by a larger population of DE students. Finally, conducting additional follow-up interviews with participants may have provided a deeper understanding of their feelings and a determination if they had already developed SRL practices through their SLE or if the practices were newly developed for DE.

As mentioned in Section 7.3.7, motivation is a factor highlighted by Pintrich (2004) as having a strong influence on SRL behaviours. Findings in this study revealed that motivational factors were present but they were not explored in depth. Future research on the role that motivation plays in pursuing DE and supporting learning during courses would be valuable.

Additionally, understanding the various types of learning trajectories (Fenton-O'Creevy et al., 2015b) imagined by DE students is worthy of additional research as this may help students and institutions more appropriately calibrate the types of experiences needed to appropriately support learner goals and better meet expectations.

As this study was focused on gathering insights from the perspectives of students participating in DE there was not attention given to other important and related factors that contribute to socio-cultural informed perspectives. Specifically, future studies could incorporate and develop the viewpoint of the institution offering DE programming, the secondary school context, or the comprehensive environment that would elaborate on the social settings these students are coming from. Similarly, expanded research on the perspectives and experiences of DE instructors would enhance our understanding. Each of these areas could

provide additional insights into a holistic understanding of the transition experience.

The final recommendation for future studies would be to explore the experience of DE students through other theoretical models and frameworks, such as CHAT (Roth & Lee, 2007), in conjunction with transition and learning theories. Since the DE context is arguably more complex than either SLE or PSLE alone, additional models and frameworks may provide additional insights.

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APPENDIX 1 – INDIVIDUAL STUDENT INTERVIEW QUESTIONS

1. What is your first and last name?
2. How old are you?
3. What term did you begin participating in the dual enrolment program?
4. How many dual enrolment courses are you currently taking?
5. How many dual enrolment courses have you completed?
6. Have you taken dual enrolment courses from any other institution(s)?
7. What are your plans for after high school?
8. Before a course begins, what steps do you take to prepare?
9. How do you monitor and keep track of your course progress for completing assignments and activities?
10. When you have a question or are feeling stuck what do you do?
11. What strategies have you found to be most helpful in completing your courses?
12. How do you determine what is expected of you when you are about to begin a course?
13. How do you recognize if there is a problem with how things are going in a course?
14. What do you do when you recognize a problem with how things are going in a course?
15. How have the strategies you used in high school to successfully complete course work changed or remained the same for dual enrolment courses?
16. As you move through a course and see major assignments, projects, or tests, how do you plan to successfully complete those?
17. Have you established a regular place or time for completing dual enrolment course activities (such as reading, studying, completing assignments, etc)?
18. What do you do when you feel yourself losing interest or motivation in completing a course?
19. What have been the top three most challenging aspect of completing courses?
20. Talk about your confidence levels in your ability to create a plan for success to meet your goal(s)?

21. Talk about your confidence levels with your ability to keep track of the various deadlines and requirements for your course(s)?
22. Talk about your confidence levels with your ability to find a possible solution when there is a problem or challenge with completing a course?
23. Talk about your confidence levels with being able to identify, remember, and use strategies that have worked in the past for future courses?
24. Beyond your instructor, have you pursued getting support from other departments or personnel at the university?
25. In general, how challenging have you found dual enrolment courses to be?
26. Is there anything else you'd like to tell me about factors that may have contributed to, or interfered with, your academic success?

APPENDIX 2 – STUDENT FOCUS GROUP INTERVIEW THEMES

1. What is your name and when did you begin participating in the dual enrolment program?
2. What has been your favourite dual enrolment course and why?
3. Before a course begins, share what steps you take to prepare.
4. During a course, share what you do to monitor your progress.
5. During a course, share what you do if you're feeling stuck or losing interest.
6. What would you say are some challenges to completing dual enrolment courses?
7. If you were to start over again, is there anything that you would want to either do differently or make sure you would do the same?
8. What could the university have done to better prepare you for success in the dual enrolment program?
9. What could the university have done to better support you throughout the dual enrolment program?
10. Is there anything else you'd like to share related to factors that may have helped or hindered your academic success?

APPENDIX 3 – STUDENT INTERVIEW QUESTION FORMATION

17. 36. I usually judge what I'm doing by the consequences of my actions.
18. 38. As soon as I see things aren't going right I want to do something about it.
19. 39. There is usually more than one way to accomplish something.
20. 40. I have trouble making plans to help me reach my goals.
21. 41. I am able to resist temptation.
22. 42. I set goals for myself and keep track of my progress.
23. 43. Most of the time I don't pay attention to what I'm doing.
24. 45. I tend to keep doing the same thing, even when it doesn't work.
25. 46. I can usually find several different possibilities when I want to change something.
26. 47. Once I have a goal, I can usually plan how to reach it.
27. 50. Often I don't notice what I'm doing until someone calls it to my attention.
28. 51. I think a lot about how I'm doing.
29. 52. Usually I see the need to change before others do.
30. 55. Little problems or distractions throw me off course.
31. 56. I feel bad when I don't meet my goals.
32. 57. I learn from my mistakes.
33. 58. I know how I want to be.
34. 62. I give up quickly.

From **Self-Regulation Questionnaire Info** (SRQ)

1. 2. If an important test is coming up, I create a study plan.
2. 3. Before I do something fun, I consider all the things I need to get done.
3. 4. I can usually estimate how much time my homework will take to complete.
4. 5. I have trouble making plans to help me reach my goals.
5. 6. I keep track of how my projects are going.
6. 7. I know when I'm behind on a project.
7. 9. I know what my grades are at any given time.
8. 10. Daily, I identify things I need to get done and track what gets done.
9. 11. I have trouble remembering all the things I need to accomplish.
10. 12. I do what it takes to get my homework done on time.
11. 13. I make choices to help me succeed, even when they aren't the most fun.
12. 14. As soon as I see things aren't going right, I want to do something about it.
13. 16. I have difficulty maintaining my focus on projects that take a long time to complete.
14. 17. When I get behind on my work, I often give up.
15. 18. I think about how well I'm doing on my assignments.
16. 19. I feel a sense of accomplishment when I get everything done on time.
17. 20. I think about how well I've done in the past when I set new goals.
18. 21. When I fail at something, I try to learn from my mistakes.

From **Validation of the self-regulated online learning questionnaire** (SOL-Q)

1. 1. I think about what I really need to learn before I begin a task in this online course.
2. 3. I set short-term (daily or weekly) goals as well as long-term goals (monthly or for the whole online course).
3. 4. I set goals to help me manage my studying time for this online course.
4. 7. I try to use strategies in this online course that have worked in the past.
5. 12. I find myself pausing regularly to check my comprehension of this online course.
6. 13. I ask myself questions about how well I am doing while learning something in this online course.

APPENDIX 4 – STUDENT PLAIN LANGUAGE STATEMENT

University of Glasgow
College of Social Sciences

Participant Information Sheet

Title of project and researcher details

Characteristics and behaviour patterns that influence academic achievement in dual enrolment courses – a case study of students at a private, not-for-profit university

Researcher: Joel Thomas Johnson
Supervisor: Dr Lesley Doyle
Course: EDUC6001 - EdD Year 4

You are being invited to take part in a research study. Before you decide to participate it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What will happen during the project?

The purpose of this study is to better understand the student behaviours which support academic achievement in dual enrolment courses. Particular attention will be given to areas of student self-regulation practices including planning, monitoring, controlling, and reflecting.

If you agree to participate, you will be invited to take part in a one-to-one interview and may also be invited to take part in a focus group interview with other students. The one-to-one interview will take no longer than 30 minutes, and the focus group interview will last no longer than 60 minutes. The interviews will either be in a public place, e.g. on Northwestern's campus, or via phone or Skype, at your convenience. With your consent, I will audio record the interviews so that I can listen carefully afterwards to what was said.

Taking part in this project is voluntary. If you decide to participate, you are still free to withdraw at any time, without giving a reason. If you change your mind after you have started to take part, just let me know and I will not use any information you have given me.

Keeping information confidential

I will keep all personal and research data separately and in either a locked cabinet (if on paper) or in a locked and encrypted file on my computer. When I have finished writing my dissertation I will destroy all of the personal data collected. When I write about what I have found I will use a pseudonym so your real name will not be mentioned.

Please note that assurances on confidentiality will be strictly adhered to unless evidence of wrongdoing or potential harm is uncovered. In such cases the University may be obliged to contact relevant statutory bodies/agencies.

Review of the study

This study has been considered and approved by the College of Social Sciences Research Ethics Committee.

Contact for further Information

If you have any questions about this study, you can ask:

Joel Johnson (), Researcher

Dr Lesley Doyle (Lesley.Doyle@glasgow.ac.uk), Research Supervisor

If you would like to speak to someone else not involved with this research or pursue any complaint, you can contact: the College of Social Sciences Ethics Officer, **Dr Muir Houston, email: Muir.Houston@glasgow.ac.uk**

Thank you for reading this.

APPENDIX 5 – STUDENT CONSENT FORM

University of Glasgow
College of Social Sciences

Consent Form

Title of Project: Characteristics and behaviour patterns that influence academic achievement in dual enrolment courses – a case study of students at a private, not-for-profit university

Name of Researcher: Joel Thomas Johnson
Name of Supervisor: Dr. Lesley Doyle

1. I confirm that I have read and understood the Participant Information Sheet for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
3. I acknowledge that participants will be referred to by pseudonym.
4. All names and other material likely to identify individuals will be anonymised.
5. The material will be treated as confidential and kept in secure storage at all times.
6. The personal data will be kept separately and destroyed once the project is complete.
7. The research data will be retained for 10 years in accordance with University of Glasgow guidelines.
8. I consent to being interviewed: yes ☐ / no ☐
9. interviews being audio-recorded: yes ☐ / no ☐
10. I agree to waive my copyright to any data collected as part of this project: yes ☐ / no ☐

I agree to take part in this research study ☐

I do not agree to take part in this research study ☐

Name of Participant:

Signature _____ Date _____

Name of parent/carer (if under 18):

Signature _____ Date _____

Name of Researcher:

Signature _____ Date _____

APPENDIX 6 – MAIN THEMES AND SUB-THEMES

	THEMES							
	SRL - Planning	**SRL - Monitoring**	**SRL - Controlling**	**SRL - Reflecting**	**Self-Efficacy**	**Challenges & Effort**	**Support**	**Transitions**
Sub-Themes	Course Matters	Internalization	Changing Practices	Help Seeking	Planning	Expectations	Instructor Engagement	Acceptance
	Nothing	Performance	Environmental	Performance	Monitoring	Level	Peers	Balance
	Organization	Scheduling	Help Seeking	Scheduling	Controlling	Motivation	Tutoring	Community
	Peers		Persist		Reflecting	Schedule		Expectations
	Self					Social		Feeling Supported
						Stay Current		High School to University
						Stress		
						Structure		

APPENDIX 7 – INSTRUCTOR INTERVIEW QUESTIONS

1. **Overview/General/Demographic**
    1. When did you begin teaching dual enrolment courses at Northwestern?
    2. Have you taught dual enrolment courses at any other institutions?
    3. How many dual enrolment courses have your taught?
    4. What modality of dual enrolment courses have you taught (online, in person)?
    5. What do you enjoy most about teaching dual enrolment students?
    6. What do you find most challenging about teaching dual enrolment students?
2. **Course Experiences and Success**
    1. What factors do you believe contribute to dual enrolment student success?
    2. What factors do you believe interfere with or impede dual enrolment student success?
    3. What types of practices do you see students use as they approach and plan to begin their dual enrolment courses?
    4. How ready/prepared do you feel students are to begin courses by the start date?
    5. What practices have you seen dual enrolment students use to monitor their progress?
    6. What practices have you seen dual enrolment students use when they encounter problems or are feeling stuck in a course?
    7. Do you use any special or different practices to support dual enrolment students compared to regular/traditional university students?
    8. How aware of university supports, services, and resources do you believe dual enrolment students are?
    9. Do you believe dual enrolment students access university support services when needed?
    10. What could the university do to better prepare dual enrolment students to be successful in their courses?
    11. What could instructors do to better support dual enrolment student success?
3. **Transitions**

1. What misconceptions do you believe dual enrolments have about taking university courses?
2. What contributes to dual enrolment students establishing a sense of belonging at the university?
3. What detracts from dual enrolment students establishing a sense of belonging at the university?
4. What could the university do to better support dual enrolment students to gain a sense of belonging?
5. What can instructors do to better support dual enrolment students to gain a sense of belonging?
6. What experiences or realities of being a university student do you think dual enrolment learners need to better understand before taking dual enrolment courses?

4. Conclusion

1. In summary, from your experience, what are the top three challenges dual enrolment students face when completing their university courses?
2. Is there anything else you'd like to tell me about factors that you believe may contribute to, or interfere with, dual enrolment student success?

APPENDIX 8 – INSTRUCTOR PLAIN LANGUAGE STATEMENT

University of Glasgow
College of Social Sciences

Participant Information Sheet

Title of project and researcher details

Characteristics and behaviour patterns that influence academic achievement in dual enrolment courses – a case study of students at a private, not-for-profit university (original title of project)

Researcher: Joel Thomas Johnson
Supervisor: Dr Lesley Doyle

You are being invited to take part in a research study. Before you decide to participate it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

What will happen during the project?

The purpose of this study is to investigate how a group of students navigate postsecondary learning while participating in a dual enrolment (DE) program. Particular attention will be given to areas of student self-regulation practices (including planning, monitoring, controlling, and reflecting) and challenges experienced during the process of transitioning to university.

If you agree to participate, you will be invited to take part in a one-to-one interview that will take no longer than 45 minutes. The interviews will either be in a public place, e.g. on Northwestern's campus, or via phone or Zoom, at your convenience. With your consent, I will audio record the interviews so that I can listen carefully afterwards to what was said.

Taking part in this project is voluntary. If you decide to participate, you are still free to withdraw at any time, without giving a reason. If you change your mind after you have started to take part, just let me know and I will not use any information you have given me.

Keeping information confidential

I will keep all personal and research data separately and in either a locked cabinet (if on paper) or in a locked and encrypted file on my computer. When my dissertation is complete and approved I will destroy all of the personal data collected. When I write about what I have found I will use a pseudonym so your real name will not be mentioned.

Please note that assurances on confidentiality will be strictly adhered to unless evidence of wrongdoing or potential harm is uncovered. In such cases the University may be obliged to contact relevant statutory bodies/agencies.

Review of the study

This study has been considered and approved by the College of Social Sciences Research Ethics Committee.

Contact for further Information

If you have any questions about this study, you can ask:

Joel Johnson (), Researcher

Dr Lesley Doyle (Lesley.Doyle@glasgow.ac.uk), Research Supervisor

If you would like to speak to someone else not involved with this research or pursue any complaint, you can contact: the College of Social Sciences Ethics Officer, **Dr Muir Houston, email: Muir.Houston@glasgow.ac.uk**

Thank you for reading this.

APPENDIX 9 – INSTRUCTOR CONSENT FORM

College of Social Sciences Research Ethics Committee

University of Glasgow
College of Social Sciences

Consent Form

Title of Project: Characteristics and behaviour patterns that influence academic achievement in dual enrolment courses – a case study of students at a private, not-for-profit university (original title of project)

Name of Researcher: Joel Thomas Johnson
Name of Supervisor: Dr. Lesley Doyle

1. I confirm that I have read and understood the Participant Information Sheet for the above study and have had the opportunity to ask questions.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
3. I acknowledge that participants will be referred to by pseudonym.
4. All names and other material likely to identify individuals will be anonymised.
5. The material will be treated as confidential and kept in secure storage at all times.
6. The personal data will be kept separately and destroyed once the project is complete.
7. The research data will be retained for 10 years in accordance with University of Glasgow guidelines
8. I consent to being interviewed: yes ☐ / no ☐
9. interviews being audio-recorded: yes ☐ / no ☐
10. I agree to waive my copyright to any data collected as part of this project: yes ☐ / no ☐

I agree to take part in this research study ☐

I do not agree to take part in this research study ☐

Name of Participant:

Signature _____ Date _____

Name of Researcher:

Signature _____ Date _____