Exploring the Lived Experiences of Grade 12 Teachers Preparing Students for Higher Education.

Shelley Lynne Gvojich

A thesis submitted to the University of Liverpool in partial fulfilment for the Degree of Doctorate in Education

Declaration

I declare that this thesis represents my own work

Name:

Shelley Lynne Gvojich, B.Sci, PDP Ed, MEd

Date:

July 2022

Acknowledgements

I dedicate this thesis to my family, to whom I am eternally grateful for their endless love and support. To my partner in life, my husband Stephen, this remarkable feat would not be possible without you. You have encouraged me every step of the way to follow my dreams, and I am grateful for your unwavering support. To my littlest loves, Shae and Ella, you too have known sacrifice so that I may take on this work. I hope you have witnessed that anything is possible when you put your mind to it and that your love of learning is innate as it is for both your father and myself. To my Mom and Dad for always believing in me and stepping up and doing what I needed most (which was often dinner and a mess I didn't have to clean up). To my friends and colleagues for suffering through this work alongside me. You were gracious in lending your ear and keeping me on track when I needed it. Finally, to my supervisor Peter, who rescued me in my time of need and has provided everything exactly how I needed it. Thank you for taking my obsessive tendencies in stride and helping my work (and me) become better!

Abstract

This study investigated the lived experiences of grade 12 teachers preparing students for higher education in a mid-sized district in Western Canada. Students often struggle with the transition to higher education (Meehan & Howells, 2018; Ostafichuk et al., 2019). Recent data from the British Columbia Ministry of Education Student Learning Surveys indicate that students are dissatisfied with their preparation for higher education (Education, 2018). Furthermore, the most recent iteration of the British Columbia provincial curriculum has left many teachers uncertain about the nature of their role in preparing students for higher education. This study used Interpretive Phenomenological Analysis (IPA) to explore teachers' lived experiences. Eight grade 12 Science and Maths teachers were selected using purposive sampling to participate in semi-structured interviews. They were asked to describe their experience preparing students for the transition to higher education. Analysis followed the IPA approach as suggested by Smith, Flowers, and Larkin (2009). Findings indicate that socio-cultural factors such as school size and classroom culture, influence teacher experience. Furthermore, participants experienced misalignment between high school and higher education practice and pedagogy which produced feelings of conflict about what constitutes meaningful assessment and how hard one should be on one's students as it relates to supporting their transition to higher education. Within supporting this transition, teachers experienced cognitive dissonance about their role as a teacher related to their professional identity and their beliefs about the purpose of education. While research on teacher experience, especially in the context of preparing students for higher education, is limited, research that includes the element of conflict is absent in the literature. This study

contributes to the literature by looking at teacher experience within critical curriculum reform, especially as it relates to how secondary teachers prepare students for higher education. This avenue of curriculum reform and teacher experience has been relatively unexplored within the literature, certainly within the Canadian context. This includes emphasising how students can gain the skills necessary for the transition to higher education (or the workforce) while still in secondary school and the role that teachers can play in developing these skills.

TABLE OF CONTENTS

FREQUENTLY USED ACRONYMS

RD- Research District

STEM- Science, Technology, Engineering, Math

RTI- Response to Intervention

BC- British Columbia

BCTF- British Columbia Teachers' Federation (Teachers' Union)

AP- Advance Placement

BC HEADset- British Columbia Higher Education Accountability Data Set

UBC- University of British Columbia

PLC- Professional Learning Community

CCSS- Common Core School Standards

GT- Grounded Theory

DP- Descriptive Phenomenology

IPA- Interpretive Phenomenological Analysis

LIST OF TABLES AND FIGURES

TABLES:

FIGURES:

CHAPTER 1: INTRODUCTION TO THE RESEARCH

This is an exploratory study of high school teachers' experiences of supporting student transition to higher education using an interpretive phenomenological approach. The research occurs in one school district in British Columbia on the West Coast of Canada, referred to in this study as the "Research District" (RD). Chapter one sets the background, describes the research problem, and discusses the context for this study. This chapter allows the reader insight into my research aims and questions, details my interest in the research topic and identifies and defines essential vocabulary.

1.1 Study Background

1.1.1 The Transition to Higher Education is Important

The transition from high school to higher education is challenging for many students. Ostafichuk et al. (2019) describe the existence of this challenge in large part due to the personal, social and academic changes that students face during the transition. For many students, higher education comes at the end of adolescence but is paired with the independence of adulthood in a highly competitive environment. Páramo Fernández et al. (2017) refer to this time as "emerging adulthood" and acknowledge that not all students in this category master the required developmental tasks and therefore do not have a satisfactory experience in higher education. In addition, "emerging adults" may experience depression, loneliness, academic difficulties and substance abuse, leading to dissatisfaction, disengagement, and attrition.

Meehan and Howells (2018) discuss the experience of first-year university students described in the literature as crucial for retention, achievement and overall satisfaction but further acknowledge that the transition to the first year has not been as widely studied. One area where transition research is more thorough is mathematics, where Bengmark, Thunberg, and Winberg (2017) describe adaptability as a critical trait for those looking to make a successful transition. Hunter (2006) proposed that a crucial challenge students must navigate in the successful transition to higher education is the significant difference in culture between educational institutions.

1.1.2 Secondary Teachers' Shifting Roles in Preparing Students for Higher Education

Teachers and students alike are faced with challenges when it comes to preparing for post-secondary education in Twenty-First Century STEM (Science, Math, Engineering, and Technology) classrooms. Content mastery, a central component of traditional secondary STEM classes, has been replaced with student-centred classrooms focused on learning and innovation, including the BC curriculum's core competencies (critical thinking, communication, and collaboration, for example) (Government of British Columbia, 2019). Teaching in this capacity requires a shift in focus from instruction to assessment. This shift can be challenging for many teachers because of the pressure faced by other teachers (Lewis 2014) and concerns about being able to complete the course in the allotted time (Boddy et al., 2003; Kazempour 2009; Keys & Bryan, 2001; Tamim & Grant, 2013). Additionally, some teachers may struggle with not teaching how they were taught (Kazempour, 2009; Lewis, 2014) and appreciate more traditional teaching methods (Qhobela, 2012). Money, Nixon, and Graham (2020) examined how implementing

student-centred pedagogy affects teachers' identities and their difficulties as their roles change. The results indicate that radically changing the learning environment can affect teachers' identities and their approaches to teaching. This knowledge is essential as it allows for the development of professional development opportunities for STEM teachers that maximises the success of teachers as they implement student-centred pedagogy. The shifting roles of teachers in today's secondary schools set the context for this study.

1.2 Study Context

The setting for this study is the secondary education sector in British Columbia, Canada. Therefore, it is helpful to consider the structure of the Canadian educational system, the context of the setting, and the context of the researcher.

1.2.1 The Structure of the Canadian Educational System

Canada is a geographically large and diverse country, with education in each province controlled provincially. Provincial control means that structure and curriculum vary across the country. Even within provinces, there can be regional differences in school and district structure. For example, some districts (such as the Research District) organise students into primary and secondary schools. In this system, students aged five to 12 (kindergarten to grade seven) are in one school, while students aged 13-to 18 (grade eight to twelve) are in another. Regional differences may include intermediate and middle schools, whereby the groupings above split further to create additional age groupings of students. Education for students in kindergarten to

grade 12 is under the jurisdiction of the Ministry of Education, while university education falls under the Ministry of Advanced Education and Skills Training.

1.2.2 District Context

This study takes place in a mid-sized school district located on the traditional territories of the Coast Salish People. It has 14,000 students dispersed across 28 elementary, six secondary, and two alternate delivery model schools. With the exception of French Immersion and a handful of athletic academies, students within the Research District are required to attend their neighbourhood school as defined by pre-determined boundaries. The boundaries are determined based on the size of the school, and how many students can physically fit in the building. Of the six "traditional" secondary schools, there is a considerable difference in the schools across many factors, including size (two of the six secondary schools are large schools with around 1700 students, while the other four are considerably smaller, with 200-800 students), programs offered, and socio-economic status of the neighbourhood where the school is located. Additionally, some schools are located within densely populated portions of the city and are considered inner city schools, while others are located in rural surrounding communities. There is also a difference across schools in terms of the number of indigenous students that make up the student population at each site. Within each school there are indigenous students who live on reservation, off reservation, and are of Metis ancestry. Differences between schools depend on the geographical location of each school site. There are approximately 1500 teachers in the district, 500 of which teach students in grades eight through twelve within this system.

The Research District is in the third year of its current strategic plan, which has four main goals:

(1) Continuous improvement of assessment and instruction,

(2) Safe, caring, and healthy learning and working environments that are inclusive of the diversity of the entire learning community,

(3) To be a leader in environmental stewardship, and

(4) Truth and Reconciliation.

The Research District also strongly values inclusion and supports learners using the three-tiered Response to Intervention (RTI) framework. RTI provides all students with high-quality tier 1 instructional practice and then incrementally more intensive supplemental instruction and support for those students who do not respond to tier 1 practice (King, Lemons, & Hill, 2012). Inquiry is strongly endorsed by the Research District, utilising the Spiral of Inquiry model as defined by Halbert and Kaser (2013).

As addressed at the beginning of this section, the Research District is located on the traditional and unceded territories of the Coast Salish Peoples. British Columbia, along with the rest of Canada, has a shameful history of mistreatment of First Nations Peoples. Barker et al. (2018) describe how First Nations Peoples have faced hundreds of years of colonisation in the form of displacement from ancestral land, forced removal of governance structures, the introduction of disease, discrimination, and cultural genocide, including the formation of

Residential Schools. These schools saw the Canadian Government forcibly and intentionally remove indigenous children from their homes and place them in church-run schools. These schools aimed to remove children from the educational, cultural and spiritual influences of their families and communities, described by Dussault and Erasmus (1996) as "removing the Indian from the child". While these schools began in the late 1800s, the last school in BC did not close until 1996.

Residential schools were not spoken about openly as part of Canadian history until recently. Many adults still do not understand the impact and intergenerational trauma of these atrocious events on First Nations Communities. Indigenous children are over-represented at almost every stage of the Child Welfare System. Barker et al. (2018) suggest that indigenous children account for 63% of children in care, representing only 10% of the population. Additionally, systemic barriers for Indigenous learners to access and persist in post-secondary institutions have created an education gap between indigenous and non-indigenous students (McKeown et al., 2018). While The First Nations Education Steering Committee (2022) states that province-wide Indigenous graduation rates have increased from 52% ten years ago to 72.5% (in 2021), there is still an education gap between Indigenous and Non-Indigenous students at all levels of education that can also be seen by the under-representation of Indigenous students in senior academic courses in high school. For this reason, Indigenous education is not a central focus of this thesis. However, it is a crucial topic in its own right and a matter of considerable discussion in the province. Building capacity around indigenous education is one part of my professional role within the Research District, discussed further in the next section.

1.2.3 Context of the Researcher

The research carried out in this study occurred via insider research, where research was conducted within a population where the researcher is also a member. Berkovic et al. (2020) describe insider research through the process of positionality, where a researcher purposely positions themself where their interests and research align. This study can be defined as insider research as it was conducted within the school district where I maintain full-time employment. Furthermore, participants were all from a specific population (senior Science and Maths teachers) that aligns with my background. Moreover, the topic of teacher experience and transition to higher education is within my professional interest. Chapter 4 will address the selection of Math and Science teachers in more detail.

I have spent most of my life and my educational career in the Research District. I taught high school Chemistry and Maths for thirteen years within two secondary schools (in the Research District). For the past three years, I have worked as a District Learning Coordinator, where my primary responsibility is to support teachers with their practice. Often this support comes in the form of professional learning opportunities, classroom outreach, and the creation of learning resources. A considerable focus of my work is supporting sound pedagogy and instructional practice with a student-centred and inclusive lens. In this capacity, I spend a lot of time interacting with secondary teachers to help them navigate through the new curriculum. Supporting educational transition, especially from elementary school to high school, is also a component of my role. In this capacity, I work with stakeholders from across the system to see how we can better support students as they move from one level of education in the system to

another. Part of my role has also been to help build teacher capacity for supporting student learning, which became especially important during the Covid-19 pandemic. In addition to working as a Learning Coordinator, since December 2021, I also work half time as the Vice-Principal of a large school in the Research District. While many of the responsibilities are similar to those in my role as Learning Coordinator, there are many additional components in working with students and managing staff.

1.2.4 Covid-19

In March of 2020, British Columbia (like much of the world), entered a lock-down due to Covid-19. For several months, schools were closed, and all teaching and learning was required to be completed virtually. Many teachers and students were unprepared to transition to this new way of education, and there were many challenges as a result. At the beginning of June, students were allowed to return to in-session learning two days a week, though only about 30% of students in the Research District actually chose to return during this time period. Students that stayed home were not required to be supported by their classroom teachers during this time, though many teachers still sent home plans and/or stayed up to date on their Google Classrooms.

Throughout most of the province, schools began September 2020 on a full-time in-session basis (though some districts opted for a part-time schedule to help accommodate social distancing). In the Research District, schools opened from K-12 on a full-time basis, also offering a "transition program" for parents not ready to send their students back full time and a Distance Learning Program for those parents wanting their children to complete the entire year

online. The interviews for this thesis were conducted in August 2020, so COVID-19 was fresh on everyone's mind. Furthermore, a decision on whether or not school would be attended in person or virtually had yet to be decided at the time the interviews were conducted. An entire EdD thesis could be written on the impact of COVID-19 and teachers' experience navigating this shift to a new form of teaching with little to no preparation. My focus for the purpose of this thesis was to gain a greater insight into how COVID-19 may have impacted teachers as they supported students' transition to higher education. The next section of this chapter will outline my positionality as a researcher.

1.3 Research Positionality

Educational transitions, students moving from one level of schooling to another, has always interested me. When I began my career as a new teacher, my course-load consistently included junior Science and Maths courses (grade eight to ten). In this capacity, students' struggle as they enter a new level of schooling was evident. I co-founded a student mentorship program to support incoming grade eight students with the transition to address this challenge. My Masters' thesis evaluated the impact of student mentorship on the transition from elementary school to high school. As a novice teacher, my course load shifted to include predominantly senior biology and chemistry courses. While many student challenges remained consistent across the different age levels, new ones emerged as students began to think about their future in higher education. I wanted to understand this transition period better and enrolled in a program that

would allow me to conduct practitioner research to do so. Shortly after starting my professional doctorate program, I shifted positions to a district role. Much of my work aims to provide professional learning opportunities for teachers looking to improve their educational practice in various contexts. In this capacity, I have witnessed my colleagues' frustration with implementing the curriculum and resistance to meaningfully participating in the district provided professional learning opportunities.

Four years ago, I joined a local Community of Practice formed between secondary teachers and professors from the local institution of higher education. Many of the conversations that arose during the first meeting addressed concerns about first-year attrition and the implications of the new curriculum. The higher education perspective on the transition, namely attrition and retention, was widely discussed. As a secondary teacher, my immediate thoughts were about high school and the system's role in this transition. Unfortunately, a change in staffing at the university resulted in the Community of Practice falling apart shortly after our first meeting. Nonetheless, the initial conversation was enough to ignite an interest in researching secondary teachers' experience within student preparation for higher education.

It is apparent in the literature that a great deal of research on the transition to higher education exists (Gale & Parker, 2014; Taylor & Harris-Evans, 2018; York, 2000). But as Vincent (2016) noted, most of the research focuses on students' perspectives once they have already entered higher education. Many studies on student transition aim to elicit strategies to increase student retention (Bowles & Brindle, K. A. (2017).; Tight, 2020). There has been a shift in the last two decades towards institutions having a greater understanding of the factors that

shape student persistence and its role in improving program completion rates, despite retention being widely studied (Tinto, 2006). The transition to higher education from the perspective of a secondary school teacher is not as widely studied. My interest in this thesis topic began with questioning why this is the case, especially for teachers in programs where a significant proportion of their students participate in higher education (such as in senior Maths and Science courses). From this questioning came the research problems that illuminated the study and allowed the formation of a research question to be possible.

1.4 Research Problems

There are three main research problems associated with this study. First, students are not satisfied that their secondary schools adequately prepare them for higher education. Second, changes in the provincial curriculum leave some teachers uncertain about their role in preparing students for future study. Finally, the transition to higher education is challenging for many students.

1.4.1 Students are not satisfied

The British Columbia Ministry of Education releases data yearly in response to student learning surveys (previously known as student satisfaction surveys) completed in grades 10 and 12 (Education, 2018). Surveys require students to answer various questions, many of which are pertinent to students' satisfaction and perceived preparedness for higher education. Responses are comparable across multiple identifiers: district vs province, indigenous vs non-indigenous

students, and grade 10 vs grade 12 students. The most recent publicly available data is for the 2018/2019 school year, as COVID-19 cancelled data collection during the 2019-2020 school year. Of particular interest is the question and responses found in the table below:

Table 1: Student Learning Survey Data Comparison Between Research District Respondents and British Columbia Respondents

	Question	**Research District (RD) Respondents**	**British Columbia (BC) Respondents**
Grade 10	Are you satisfied that school is preparing you for post-secondary education?	30-41%	33-42%
Grade 12	Are you satisfied that school is preparing you for post-secondary education?	29-37%	31-40%

*Data presented outlines the five year average for that question

*Data is based on all respondents who answered either “all of the time” or “many times.”

This data indicates that many students in the district and province are not satisfied that their school prepares them for post-secondary education.

1.4.2 New Curriculum and Shifting Roles

In addition to poorly perceived student satisfaction, there has also been a significant curriculum shift in British Columbia. As addressed earlier in this chapter, in 2015, BC moved towards a competency-based curriculum that supports personalised learning through flexibility and choice (BC's New Curriculum, 2019). As a part of this new model, different curricular and core competencies are implemented through diverse content areas as students move through the grades and courses. The curriculum identifies what students know (content), can do (curricular competencies), and understand (big ideas). Similarly, the curriculum outlines core competencies across all curricular areas and includes personal and social, thinking, and communication. Within these areas are skills like critical thinking, self-reflection, social awareness and responsibility. There are also no longer any provincial or matriculation-based standardised exams in the province of British Columbia. The government describes the new curriculum as one that "ensures that students graduate as educated citizens, with the knowledge, competencies, and skills they will need to transition successfully into higher education, training and the workforce" (BC's New Curriculum, 2019).

Although the new curriculum was designed to be more flexible and better meet the needs of 21st -century learners, there has been a contentious political background between The British Columbia Teachers Federation (BCTF- The Teachers Union) and the Ministry of Education

when it comes to the new curriculum (Gacoin, 2018). While the Ministry intended to include teacher perspectives from the outset, the BCTF was in a contract bargaining year with the province during the initial phases of curriculum redesign (Gacoin, 2018). For this reason, the BCTF recommended that Teachers did not participate in any Ministry working groups for the new curriculum. This lack of teacher participation and consultation meant that teachers did not join the Ministry planning until a couple of years into the process.

The Roll-out of the new curriculum was gradual over three years, and some districts were more invested than others. While the curriculum change was not optional, participation in a ministry reporting pilot was. The new curriculum has been released in its entirety, but there are changes to the reporting order that have yet to come into effect (the current projection is September 2023). The Research District is in year three of a reporting order pilot project, a ministerial order from the Ministry of Education that outlines assessment and reporting requirements in the province. The reporting pilot requires that students in kindergarten to grade 9 receive all feedback based on proficiency scales and not traditional grades and percentages. The proficiency scale is a four-point rubric where students can be emerging, developing, proficient, or extending in their demonstration of learning. At this time, not all districts in the province assess students this way, though it will be expected from all districts by September 2023. Furthermore, even for those school districts involved in the ministry reporting pilot, the Research District is the only district that chose to have all schools in the entire district participate. Only students in grades 10 to 12 receive letter grades (A, B, C, D, F).

Despite participation in the Ministry Pilot, many teachers in the Research District have not shifted their instruction and assessment practices to align with the new competency-based curriculum. Over the past few years, the district has put forth considerable effort to support changing teacher practice to better align with the curriculum, including implementing Professional Learning Community time (weekly at the secondary level and bi-weekly at the elementary level). The curriculum focuses on preparing learners with the skills they will need to succeed in the transition to higher education, making the research in this area timely. However, this new program's significant change in teaching leaves some teachers uncertain about their role in preparation for higher education. In addition to arming students with the twenty-first-century skills outlined by the new curriculum, teachers also want students to be prepared for the transition to higher education, which is challenging for many students.

1.4.3 The transition to higher education is challenging for many students

There is a plethora of research on topics related to the first year of university, much of which addresses that the transition to higher education is problematic for many students. Aljohani (2016) as well as Van Herpen, Meeuwisse, Hofman, & Severiens (2019) posit that high first-year attrition rates in universities are evidence that students struggle with the transition to higher education. The institution of higher education located within the Research District has identified attrition and retention data for first-year attrition rates as 40% (in 2011- the most recent data publicly available). The volume of programs available to students geared towards successfully transitioning students from high school to higher education indicates the importance placed on this topic by institutions. For example, at the high school level, students can participate

in dual-credit and Advanced Placement (AP) courses, which allow them to earn first-year credits while still in their last year of high school. Students can interact with university advisors while still in high school and are required to participate in a capstone project that explores their social, academic, and financial readiness for higher education. Universities offer various program options and entry points and a wide range of student support services (such as the advising centre, counselling services, the health and wellness centre, and the Aboriginal Student Services program) (Vancouver Island University, 2019). The next section will outline the aim and objectives of this research as well as provide the research question.

While most students can continue despite the social, academic, and emotional stressors associated with the first year, many students cannot meet the demands of higher education and drop out sometime before graduation (Casanova et al., 2018). It is challenging to quantify retention this way, as many factors (including institution, program, and year) inevitably affect the outcome. The British Columbia Higher Education Accountability Dataset (BC HEADset) is a locally created database generated to demonstrate accountability and transparency to higher education institutions in British Columbia (British Columbia Higher Education Accountability Dataset, n.d.). It provides enrollment and completion data for the most common provincial institutions. Two relevant sets of data exist within this database, which I discuss here as a tool for showing that students are in need of support when transitioning between institutions.

The first set of data tracks student enrollment in faculty cohorts from the first to the second year of university. By looking at the 2019 cohort (the most recent available data), differences exist across institutions and faculties. The University of British Columbia (UBC)

Vancouver Campus has the highest average retention (across all faculties) at 95%. In some ways, this is not surprising, as UBC also has the most applicants and the highest required entrance averages. However, differences exist within faculties also. For example, science programs tend to have lower retention rates than other faculties. The average first to second-year retention across all universities is 91%, with Simon Fraser University (92%) and the University of British Columbia-Okanagan (90%) clustering around this score. The University of Northern British Columbia (74%), The University of Victoria (85%), and Thompson Rivers University (74%) all fall below the provincial average.

The second relevant set of data provided by BCHEADset is the 6-year degree completion rates for four-year Bachelor programs. These are important statistics as they allow one to look at how many students are actually able to make it through the transition period and complete their degree (not accounting for those that complete outside of the six-year completion time frame). The 2013 cohort (which would have had until 2019 to be included in the data set) shows that the provincial average for six-year completion is only 69%. Again, the University of British Columbia-Vancouver Campus had the highest completion rates (79%), followed by The University of British Columbia Okanagan (69%), Simon Fraser University (67%), The University of Victoria (61%), The University of Northern British Columbia (48%), and Thompson Rivers University (48%). Six-year completion rates in the province indicate that many students that begin programs do not end up completing them, or conversely, finish them over more prolonged periods.

1.5 Research Aim, Objectives, and Question

While it is students who participate and experience the transition to higher education directly, secondary teachers experience the transition (and its associated preparation) second-hand through the absence of certain factors (be it support, academic readiness, etc). In many ways, what is not there informs us about what is there. The research objective of this study is "to explore how secondary school teachers experience supporting the transition of grade 12 students to higher education". It will therefore address the research question:

1. How do teachers experience preparing grade 12 students for higher education?

The aims of this study are to:

1. To contribute to secondary teachers' knowledge about how they interpret their role in preparing students for higher education
2. To use the research findings to inform the development of local professional learning opportunities for secondary teachers

1.6 Definition of Terms

Definitions for the following terms provide clarity and transparency for the reader:

Secondary School/High School- In the Canadian context, these terms are often interchangeable. In the RD, this refers to a school with students from grade eight (average age 13) to grade twelve

(average age eighteen). It is the last level of schooling before students can enter university. Most students graduate from high school in the province of British Columbia with a Dogwood Diploma.

Elementary School- In the Canadian context, elementary school often consists of primary students (kindergarten to grade three) and intermediate students (grade four to grade seven). Sometimes these groups are separated in different schools. If middle schools are present, then students in grades six to nine are separated from elementary and high school students. For the most part, RD has only elementary and high schools.

University/Post-secondary/Higher education- In the Canadian context, these terms are often interchangeable. Sometimes people also use the word "College", though technically, a college differs by not offering four-year degree programs.

Learning Coordinator- A district learning coordinator is a position that exists in many school districts across British Columbia. Still a member of the British Columbia Teachers Federation (BCTF), learning coordinators work across multiple school sites to support teaching staff and professional learning. In addition to literacy, numeracy, assessment, and instruction, the coordinator role is usually strongly connected to the board's goals.

Educational Transition- Educational transitions refer to when students must move from one level or system of schooling to another. In British Columbia, the most common educational transitions are from preschool to kindergarten, from grade seven to grade eight (or elementary to high school) and from grade twelve to higher education. There is an additional transition from

elementary school to middle school for districts with middle schools and then again from middle school to high school.

*Professional Learning Community (PLC)- PLC'*s are professional learning opportunities driven by student data and the inquiry process. It differs from professional development because it stems from the students' inherent needs and not teacher's interest. In PLC's, teachers aim to both increase their professional practice and enhance student learning (Alkrdem, 2020).

1.7 Structure of the Thesis

The following chapter critically analyses and evaluates the literature to understand the research problem and probe deeper into its theoretical framework. Chapter Three, the methodology, outlines the design process including information about the study design, worldview, IPA, ethics, data collection, and data analysis. Chapter four will provide the findings of the research for each participant. Chapter five offers thematic findings and discusses the study's outcomes across all participants. Finally, Chapter 6 addresses the research questions and objectives and provides recommendations for further investigation.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This literature review looks at research on the experience of high school teachers as they prepare their students for higher education. A search of Google Scholar utilising the words "transition" and "higher education" results in over 4.9 million hits, suggesting there is a lot of research on these topics. In contrast, a similar search on "high school" and " teacher experience" elicits a mere 30,300. Broadening the search term to just "teacher experience", only 55,000 matches are found. While this search indicates that educational transitions in higher education across many different themes are widely studied, high school teachers' experiences have not been studied to the same extent.

I am conducting a review of the literature to explore pre-existing research in educational transitions and teacher experience. The goal is to identify research gaps to help inform my eventual research question. This chapter outlines the approach taken to review the literature, including databases and search terms used. I will also break the main components of the review into three separate themes:

1) Institutional issues and student perspectives of the transition to higher education. (This categorization exists to reflect the existing literature that currently emphasises this area.)
2) Research on high school teachers' experiences and other critical milestone transitions that students experience. (This categorisation exists out of necessity

given the lack of research on high school teachers' experience with preparing for the transition to higher education.)

3) Current gaps in the literature and how this study seeks to fill the void. (This categorization will further the rationale for the importance of this study.)

2.2 Approach to Reviewing the Literature

I approach this literature review with what Linnenluecke, Marrone, and Singh (2020) refer to as a "theme centric review". In this way, I help the reader understand the themes associated with preparing secondary students for the transition to higher education. This is done by detailing the dominant themes in the literature and grouping them accordingly. I selected this method to provide a "systematic review", which Tranfield, Denyer, and Smart (2003) describe as requiring the comprehensive review of available research in a replicable and transparent process. The purpose of conducting a literature review in this way is to minimise the bias that results from a literature review process that is random or exclusionary.

I reviewed the literature primarily using databases found in the University of Liverpool's online library, Google, and Google Scholar. To begin the literature review process, I created a list of the keywords that I thought may be linked with, or appear in, appropriate research studies. I set parameters to include studies conducted in the last five years to ensure that I reviewed the most recent literature. As I discovered articles of interest, I used emergent literature to find potential new sources. Generally, I accomplished this with Google Scholar. This aligns with the practice of Webster and Watson (2002), who suggests "going backwards" and "going forward"

on the literature of interest by looking at the citations used within a study and by looking at studies that cite the article, respectively.

Using the search parameters as suggested above, existing literature indicates that the transition from high school to higher education is not as well studied as other educational transitions. More well-studied educational shifts include transitioning from preschool to elementary school (Besi & Sakellariou, 2019; Stephens, 2018), from elementary school to middle school or high school (Coffey, 2013; Evangelou et al., 2008; Towns, 2018), and from the perspective of students who have already transitioned (Holdsworth et al, 2018; Jorgenson et al., 2018; Trautwein & Bosse, 2017). Through all of my searches across multiple databases, I found only a single study (Rodriquez et al., 2017) that looked at high school teachers' experiences with preparing students for higher education (which will be discussed later in this chapter). There is a distinct gap in the literature in this area, which should be explored further as teachers play an important role in supporting students as they transition to higher education (Abi-Raad, 2018). Due to the lack of research in this area, I widened my search to include other educational transitions and the experience and concerns of classroom teachers to help provide further context and insight. This process allowed me to conduct a fulsome review of the literature.

2.3 Reviewing the Literature

As described previously, this literature review has three main components. The first section discusses the institutional issues that describe why the transition to higher education is problematic for many students. This section is included as a background to the challenges facing

higher education and provides insight into why the further investigation of this topic is essential. The second section of this review describes what we know about teachers' experiences and the factors that impact them. This aligns with Louie (2007), who argues there is a need for broader dialogue about the purposes and structure of schooling, especially in terms of the role of teachers, students, and parents. Finally, the last section reviews the practical understandings gained from looking at other relevant educational transitions. This includes the transition from pre-school to elementary school and from elementary school to high school.

2.3.1 Background

DeBerard, Spielmans, and Julka (2004) describe the importance of the transition from high school to higher education because it is a time when students face many different changes at once. This sentiment holds today, as current university students often must deal with living on their own for the first time, being held educationally accountable, and studying at a higher academic level. While this statement is undoubtedly true, it doesn't explain why more research does not exist on the time leading up to the transition- namely, the experience of high school teachers as they prepare students for the change.

Much of the literature that already exists focuses on institutional and student issues such as attrition (Burke, 2019; Kember et al., 2021; Tarmizi et al., 2019), retention (Tight, 2020; Tinto, 2006), and student experiences (AlKandari, 2020; Watson et al., 2009). The gap in the literature may be pragmatic, as, in my experience, very few high school teachers engage in formal research opportunities compared to their higher education counterparts. There is no

available evidence to prove this theory, as a tracking system for doctoral degree completion in the public education system in British Columbia does not exist. However, using the Research District as an example, only a handful of district staff have doctoral degrees. Most of them currently work in administration or at the district level (not as classroom teachers). The lack of research in this area may also be explained by the fact that the perspective and experience of high school teachers may not be as valued by institutions of higher education and the researchers that work within them. No evidence is found in the literature that indicates this is true. However, my anecdotal experience working with staff from within the different systems suggests this may be the case. While secondary teachers seldom engage in formal research, they often experience many of the early indicators that cause students to drop out of university in later years.

Many reasons indicate why students may drop out of school, some of which may be unavoidable or unrelated to the institution. Social support (Ratelle, Simard, & Guay, 2013), psychosocial factors (McKenzie & Schweitzer, 2001; Nora, 2004), previous high school grades (Geiser & Santelices, 2007; Hoffman & Lowitzki, 2005), student motivation (Romine & Quattlebaum, 1976), the role of the teacher (Lawrence, 2003), study skills (Jansen & Suhre, 2010), and sense of belonging (Pittman & Richmond, 2008) are all factors associated with attrition from higher education. Kimbark, Peters, and Richardson (2017) discuss the increased access to higher education in recent years, especially in local colleges and universities, due to the creation and implementation of access programs, open admission policies, and changes in national mindset about the role of higher education. Though the authors acknowledge that access

and enrollment have increased, successful completion rates have remained relatively unchanged since the 1970's.

In addition to retention and attrition, transition to higher education literature often focuses on students' perceived sense of belonging. Tinto's (1975) theory of student persistence identifies a sense of belonging, or students' sense of affiliation within an institution, as an essential component in the educational transition period. Despite the shortcomings and refinement associated with his work, Tinto's (1975) model provides a critical theoretical understanding of the importance of belonging to successful student transition to higher education. It is also the most prevalent theory on the topic. In addition, Tinto noted that student attrition was about the institution as a community as much as it was about the individual. In other words, his focus was more on the interaction between the students and the institution, not just on the students themselves. The institution's inclusion is an essential consideration, especially for institutions looking to improve student transition experience.

Tinto's more recent work (2003) highlights the importance of creating engaging learning communities that involve students in the learning process. As a result of this addition, Tinto suggests that students more readily develop supportive networks with their peers and successfully bridge the academic-social divide. Of particular interest in revisions to Tinto's early work is the notion that student persistence theories should include the faculty involved in student transition (Tinto, 2000). Like institutional considerations, faculty considerations add an additional layer as staff can shape learning inside and outside of the classroom and are also tremendously important in developing the learning community.

There are several limitations to Tinto's ideas of student departure. Smart (2008) summarises these limitations, describing Tinto's views as hyper-focused on the institutions' interactions, perhaps marginalising economic, social, political, technological, and global forces' effect on student persistence. His work was particularly limited given how different higher education is in current times than in the mid-1970s when his work was initially published. Finally, several authors (Attinasi, 1989, 1994; Hurtado & Carter, 1997; Tierney, 1991) have acknowledged the lack of theoretical considerations for minority students (such as indigenous students or students of colour), potentially ignoring culturally relevant reasons for leaving higher education. While Tinto refined his work to include some of the factors addressed (2000; 2003), refinement of his theory has also come from other authors. For example, Braxton et al. (1997) have suggested that, though they found only weak empirical support for Tinto's social and academic integration model, Tinto's theory is predictive for non-traditional students such as those in community colleges. This revision may make Tinto's theoretical framework more relevant for smaller communities where more students may attend community colleges and for other non-traditional students such as mature students. It is essential to include this here as this study deals with more traditional students transitioning directly from higher school to higher education.

While Tinto traces initial studies on student retention back to the 1960s, a simple literature search can result in millions of hits with few parameters. Interestingly, these studies' approach often implies that institutional retention and student success are inherently linked. However, student success is a challenging concept to discuss, as many studies identify success

across a singular dimension (often academic)- an idea that many (Weatherton & Schussler, 2021; Wolf-Wendel, Ward, & Kinzie, 2009) refute. One can find success through many avenues, not just degree program completion, or higher education at all, for that matter.

Levitz, Noel, and Richter (1999) and McKenzie and Schweitzer (2001) discuss the importance of previous academic success (as defined by incoming SAT scores and GPA) and strong study skills as central tenets to having a "strong first year". If one defines "a strong first year" in terms of retention and high academic standing, this concept probably holds true. Levitz et al. (1999) echo these sentiments, citing the American National Databases on retention and graduation rates in higher education institutions. Specifically, they argue a linear relationship between academic ability and retention. However, while these studies indicate the importance of intellectual ability, they neglect other factors that may impact student retention (such as social-emotional readiness, connections with others, and resilience).

Many psychosocial predictors of student retention have also been studied. For example, McKenzie and Schweitzer (2001) highlight student-institution integration, commitment to the university, school satisfaction, financial situation, career orientation, social support, satisfaction with university, career orientation and psychological health as valuable components of a successful transition to the first year. Similarly, several authors (Hoffman, Richmond, Morrow, & Salomone, 2002; McKenzie & Sweeitzer, 2001; Pittman and Richmond, 2008) have identified the importance of connectedness to the school community, often addressed in the literature as a sense of belonging. Parker, Summerfeldt, Hogan, and Majeski (2004) have looked at successful students' emotional intelligence and have found a strong correlation between academic success

and intrapersonal skills, adaptability, and stress management when comparing students with vastly different grade point averages. Attachment to parents (Larose & Boivin, 1998; Wintre & Yaffe, 2000) and instructor role (Price, 2010) have also been studied concerning student attrition.

Resilience is an important factor when it comes to discussing the transition to higher education, Johnson (2008) describes resilience as both the process and outcome of coping to threats against wellbeing and the response to risk. As students transition to higher education, they often experience challenges that may present as social-emotional threats, and as such, resilience becomes an important factor in the discussion. Morrison and Allen (2007) highlight the many forms that resilience can take, such as social and academic competence, problem-solving skills, autonomy, and a sense of purpose. Resilience is a fundamental concept when working with vulnerable communities, where schools may be uniquely positioned to support students living in challenging contexts. Liebenberg et al. (2016) suggest that resilience plays a role in lessening the impact of the many contextual factors associated with at-risk students. Despite this assertion, other protective factors beyond personal resilience may help students, at-risk or not, transition into higher education. For example, classroom teachers play an essential role in this regard as they are often the enduring adults with whom students spend a great deal of time. For this reason, Johnson (2008) describes teachers as enduring socialising influences. For teachers to have this lasting impact on students, students must be willing participants with their teachers and engage in the learning opportunities provided.

Student engagement is an additional theme for educators today to consider. Kahu and Nelson (2018) describe engagement as critical for student success as students engaged in their

studies are more likely to be successful, impacting student retention rates and achievement. But what is meant by engagement, and where does the responsibility lie to ensure that students are engaged? Lei, Cui, and Zhou (2018) define engagement as being actively involved in learning tasks and activities. Martin and Bolliger (2018) describe it as the investment and effort students put into their learning experience. These descriptions imply that engagement is a student-centred notion and thus not necessarily a responsibility of teachers. Macfarlane and Tomlinson (2017) suggest that the increase in interest in studying engagement stems from the internationalisation and marketisation of higher education institutions that have seen an uptake in university participation rates. This suggests that institutions and individual teachers have a requirement to engage students or fail to compete with other institutions.

Pedler, Yeigh, and Hudson (2020) describe engagement as a crucial component of the teaching and learning process. Teachers play a pivotal role in student and classroom engagement in this capacity. While disengagement is a global problem, it is unique in that educators can exert influence by creating engaging learning environments (Shernoff et al., 2014). While teachers cannot directly impact student engagement, they can influence it by how they set up their classrooms and interact with students. Even the types of assignments designed for students can impact engagement (Pedler, Yeigh, & Hudson, 2020). Furthermore, engagement relates to many other factors, including teacher professional identity and educational atmosphere. Engagement can increase motivation and performance and has become an essential component of scholarly research in the last decade. Kahu and Nelson (2018) acknowledge the critical nature of engagement in student success. In addition to positively predicting academic achievement (Lei,

Cui, & Zhou, 2018), student engagement helps to reduce apathy and increase learning (Conner, 2016).

Just as there is a great deal of research in the literature citing the importance of engagement to student learning, research challenging assumptions associated with student engagement and educational practices are beginning to emerge (Macfarlane & Tomlinson, 2017). Pedler, Yeigh, and Hudson (2020) identify teacher understanding of effective engagement strategies as part of the challenge. Not all teachers have the same understanding of what constitutes engagement and what does not. The authors express that while many teachers understand general principles of student engagement, they do not always utilise those principles within their practice. In this regard, theoretical understanding and pedological beliefs about how students learn best do not always align with actual teaching practice. A specific example of this problem is found in the teacher-student relationship: teachers understand the impact of one-on-one support for students, yet this is not the practice that regularly occurs within classrooms. The disconnect that exists between engagement beliefs and practice is also relevant for preparing students for the transition to higher education. Many teachers struggle with finding strategies to have students engage with developing their readiness for the transition, which is often seen as apathetic students who are unwilling to engage in their development. The following section will look at the literature that currently exists from a teacher's perspective.

2.3.2 Current Literature on Secondary Teacher Perspective

As addressed earlier in the chapter, almost no literature exists on the experience of secondary teachers as they prepare students for the transition to higher education. Rodriquez et al. (2017) is one study that addresses the transition from the teachers' perspective, though the study exists more like a comparative analysis of how teachers at the high school and university levels understand the transition instead of specific experiences. The study brings together high school and university teachers to engage in a critical dialogue around implementing the Common Core School Standards (CCSS) in high schools across the United States. While the study is from the United States, there are parallels to the current educational climate in Western Canada. The study describes the CCSS as a set of uniform proficiency standards that inform students and parents about learning objectives and achievements, similar in many regards to the current BC curriculum and curricular competencies. Rodriquez et al. (2017) believe that it is a relevant point of discussion for high school and university teachers as students impacted by CCSS will enter university classrooms in the future. The same is true for students in BC high schools.

The findings of Rodriquez et al.'s (2017) study pertain to the relationship between secondary school teachers and university professors in terms of their understanding of the transition period. Participants at both education levels indicate that ongoing dialogue between teachers in the two systems is helpful in terms of understanding the expectations, issues and changes in curriculum at both levels. Furthermore, participants in the study agreed that there needs to be a more important place for student engagement in the learning process. However, the study neglected to provide any specific strategies for how this might be accomplished.

Participants indicated that there are critical differences in the perspectives of teachers at the different levels of education, especially in reference to flexibility with lesson plans (more so at the university level), adherence to deadlines (less so at high school level), and non-academic factors that affect both high school and higher education. While there was a reference to the potential of an approach that pro-actively supports student transition to higher education, the only suggestion provided was for university professors to come to high schools to share their syllabus and expectations. There was no discussion of how high school teachers could support the transition with their students within their own classrooms.

Baker (2011) also acknowledges the importance of dialogue between the two systems but comments that it often remains elusive in practice. This aligns with my own anecdotal experience in the field, where teachers appreciate the opportunity to engage with colleagues in the complimentary system but are not often given a chance to do so. While the comparative nature of teachers' experiences in the different systems is an exciting research idea that could be further researched in the future, what appears to be missing from Rodriquez et al.'s (2017) study is an explicit reference to what "teacher experience" actually entails. While the term is referenced by the study on numerous occasions, little specifics are given about why these experiences are significant to better understand student transition from high school to higher education. For this reason, the next section will review the literature on teacher experiences.

A final study of interest is Keiler (2018), who looks at the impacts on educators of teaching in student-centered, peer-mediated STEM classrooms. The article acknowledges the challenges that secondary STEM teachers have preparing students for higher education (and

careers), specifically citing the importance of preparation that extends beyond just content knowledge. The author offers a student-centered approach as one means to positively impacting the transition. Keiler (2018) also suggests that a student-centered classroom impacts the role of the teacher, with the focus shifting from instruction to assessment. There are parallels between the student-centered instruction described in this research and the new curriculum as defined by the British Columbia Ministry of Education. Furthermore, Keiler also addresses how the shift in pedagogical approach can have an impact on teacher identity. What the study negates to include is the impact of a pedagogical shift that is imposed on a group of teachers, as the teachers in the study were all willing participants in a student-centered program. The study also does not place teacher experience at the forefront of the research.

2.3.3 Teacher Experiences

Classroom teachers are the enduring adults in many students' lives and play an essential role. There are decades of research indicating that teachers are the most important factor in learning (Aaronson, Barrow, & Sander, 2007; Darling-Hammond, 2000; Gershenson, 2016; Greenwald, Hedges, & Laine, 1996; Nye, Konstantopoulos, & Hedges, 2004; Rivkin, Hanushek, & Kain, 2005; Rockoff, 2004). Despite teachers' importance and role, little research exists on teacher experience. The Oxford Dictionary defines lived experience as "personal knowledge about the world gained through direct, first-hand involvement in everyday events". While the term's meaning generally seems consistent across different research methodologies, the role experience plays can be very different. More details about the specific selection of methodology will be addressed in Chapter 3; however, it is acknowledged here that there is a void in the

literature when it comes to understanding the lived experience of teachers as they prepare students for higher education. This can be seen by the lack of research that exists when using common search databases to find some combination of “teacher”, “experience”, and “lived experience”. Despite this reality, research does exist on the challenges teachers face in their current work- which inevitably impacts their day to day experiences in the classroom.

Edwards (2017) is an example of research from the last five years that outlines identity as one theme of importance concerning teacher experience. Specifically, Edwards addresses the need for modern educators to deliver educational programs to a more diverse population than ever before, all while facilitating critical thinking, building community, providing individualised opportunities and doing so in a culturally responsive manner. This view is shared by Gacoin’s (2020) research report outlining the current landscape of inclusive education in BC. In this report, the current situation is described in the context of fifteen years of underfunding. Specifically, teacher participants identify the deterioration of learning conditions where it is challenging to support learners’ needs (including social and emotional needs). The report suggests that the funds allocated for special education services in the province cover just over half of what school districts ultimately need to spend on these same services. This is particularly alarming, as Bannister (2019) suggests that 92% of British Columbia teachers have been the target of student or parent violence in their career, while two-thirds suggest high levels of stress due to the inability to meet the needs of all learners. These are two of several challenges that teachers currently face.

The lack of available resources is one factor in the heavy workload currently plaguing many teachers. Froese-Germain (2014) suggests that teacher workload issues are well documented in Canada and often stem from the sweeping demographic, social, economic and technological changes that many Canadians have faced causing a shift in work-life balance. This has been an issue for over a decade, as Naylor and White (2010) reported similar findings in their research reporting that most full-time teachers work many hours over the standard workweek. This averaged at 47.8 hours per week for most participants, with one in ten reporting over 60 hours a week. Time spent outside of the workweek is spent on various tasks, including classroom preparation, marking, correspondence, administrative tasks, working with students outside of class time, and extracurricular activities.

Several authors (Cano-García et al., 2005; Johnson, Berg, & Donaldson, 2005; Kyriacou, 2001) have identified the teaching profession as one that is difficult, stressful, and unpredictable. Lortie (1975) suggested almost fifty years ago an explanation that seems plausible even in current times. He argued that the culture of education is one of high ambition which makes it challenging for teachers to meet the high expectations that are placed on them (either externally or self-imposed. Furthermore, it is challenging to determine if one has "been successful" given the lack of immediate feedback and the fact that students are constantly leaving their charge. While both of these statements have merit, it is also essential to acknowledge the culture shift that has occurred in education around parental and community expectations over the past couple of decades.

A striking cartoon often circulates on social media that shows a student with their parents in 1969, with a caption of "explain these bad grades". In the image, the parents are facing the student placing the onus upon the student to be accountable for their grades. The cartoon then flashes forward to today, where parents are given the same caption, but this time they are standing with the student facing the teacher in anger. The teacher is now required to be accountable for the grades. Dunn (2018) analyses publicly available teacher resignation letters to address teacher perception of the change in practice, namely a climate that no longer supports teacher agency. Much like the social media cartoon, Dunn highlights how the teaching profession has shifted over the past several decades, and cites a lack of time, a mismatch between their beliefs and the reality of teaching in today's educational climate, and a lack of trust and respect for their profession, as the significant differences. Outside of Dunn's study, there is little evidence in the literature that details this shift in education. Peterson et al. (2011) have previously commented on the lack of literature in this area, but especially on who students believe is responsible for their success. They also acknowledge that much of the existing literature on parental factors around education is on parental support, not how this has changed over time. While the authors noticed this gap in the literature a decade ago, a recent search indicates that little has changed and that this could be a potential area for further research in the future.

The relationship between student and teacher is another vital part of the teaching experience. Cohen (2011) describes this relationship as "impossible". He argues that this is because students, as the "clients", are often unwilling participants who are required to attend but

are uninterested in doing so. This study neglects to consider the opposing perspective whereby students are engaged, and the student-teacher relationship is one of the most rewarding components of the job. The relationship between students and teachers is an important one and has important implications in terms of engagement. Skinner et al. (2008) describe the student-teacher relationship as a central component of student engagement. It is possible then that a negative relationship could cause students to be disengaged; thus, Archambault, Vandenbossche-Makombo, and Fraser (2017) describe the positive student-teacher relationships as a protective factor for students.

While there is evidence that a good teacher can benefit a student well into adulthood (Edwards, 2017), there is also evidence that teaching is its own reward. Naylor and White (2010) discuss the satisfaction teachers receive from interacting and working with students and other teaching staff. Many teachers report that they gain a great sense of satisfaction from supporting learning and development with their students. For this reason, Giroux (2019) describes teaching as a "helping profession", where caring work is a critical component of the job. Similar findings exist from over 30 years ago, where Dilworth (1991) describes teaching as the altruistic desire to help youth and society.

When reflecting on the day to day life of teachers, it should also be acknowledged that specific events can have an impact on the teaching experience. An example of this is the global COVID-19 pandemic. In March of 2020, British Columbia schools, like many across the world, had k-12 in-person instruction suspended in response to the global pandemic. The BC government's rapid response to the pandemic had (and will continue to have) a lasting impact on

the delivery of education in British Columbia. In June of the same year, schools in British Columbia re-opened with varying instructional hours and student density restrictions. Canada-wide, British Columbia was the only province to invite k-12 students back to in-person learning. Research is only just beginning to be published in this area. There is one study researching the effects of COVID-19 on British Columbia schools, teachers, and students. MacDonald & Hill (2021) describe the high levels of stress faced by teachers trying to maintain students' physical and mental health simultaneously, increased workload, the complete change in structure and routine, and implications for social interactions. While much of the research describes the challenges and struggles presented by COVID-19, MacDonald and Hill's research also outlines the tremendous opportunity for professional growth in terms of technology, pedagogy, and increased collaborative opportunities. While research does exist on how COVID-19 impacted the transition to higher education (Normann et al., 2020; Pownall, Harris, & Blundell-Birtill, 2021; Turner, Hughes, & Presland, 2020), no research exists on how the pandemic impacted secondary teachers in their role of supporting students with the transition. Much of the current (early) literature focuses on the response of higher education institutions and how to best support students.

2.3.4 Other forms of Transition

While the literature on the transition from high school to university is described above, it is essential to note that we can glean additional information from other educational transitions that exist. Transition across all academic domains is well studied, though gaps in the literature exist across most areas. Regardless of which educational transition one looks at, almost all

studies begin with an introductory statement outlining the importance of research on that particular transition. For example, McIntyre et al. (2007) describe the transition to kindergarten (from preschool) as the most crucial developmental milestone for children, a sentiment shared by Welchons and McIntyre (2017) as well as Schmitt et al. (2017). Goldstein, Boxer, and Rudolph (2015) focus on the importance of the transition to middle school, whereby students are faced with changes in both school structure and individual development concurrently. Finally, Langenkamp (2010) describes the transition to high school as a" critical stage" in students' life trajectories.

Given that educational institutions in North America are structured by the age-based grouping of students, there are several different educational transitions that students can face during their school careers. Students attend an elementary school (sometimes separated into primary and intermediate), potentially followed by a middle school, and finally a high school. Generally speaking, only students in very small, rural districts would have the option of attending an institution that houses students from kindergarten to grade twelve. Creating separate institutions to allow for this age-grouped separation of students necessitates a transition between institutions. Weiss and Bearman address an essential question in their (2007) study, discussing whether the educational transition from one grade to another or from one school to another creates a challenge. By looking at the transition from grade six to grade seven in both k-6 and k-8 schools, the authors discovered that differences existed across social and academic realms. Moreover, grade six students in a k-8 school were more strongly influenced by their older peers, while those in k-6 schools felt more significant amounts of responsibility and were more

academically oriented. One might question whether there are other factors present that have implications for school organisations that impact student challenges. Furthermore, the distinction may also lie in having a leadership position (or being the oldest) within the school. The research of Alspaugh(1998) suggests an alternative position, that generally, the fewer educational transitions that students are subjected to the better students perform. This means there are considerations regarding the perceived benefits of how schools are organised and the potential consequences of the transition between different institutions.

Some consistencies exist across all educational transitions that are relevant to this study. Benner (2011) notes that all transitions involve a shift from familiar to unfamiliar contexts and that this uncertainty causes many of the challenges that arise. They also outline that transitions may provide opportunities for students to improve their social status. However, Langenkamp (2010) believes that changes in social relationships are challenging because of the associated changes in context due to transition. Furthermore, social relationship differences often span both peer and teacher relationships. Weiss and Bearman (2007) also reference this change in social and academic environments, describing the stricter standards, lower levels of interaction with teachers, and more significant consequences when moving to the next level of schooling.

2.4 Gaps in the literature

Much of the current research on the transition to higher education focuses on the transition itself, almost extensively on institutional issues and from the student perspective. The lack of available research on the preparation experience of secondary teachers highlights the

distinct gap in the literature when it comes to teacher impact and perspective. This type of understanding is crucial, as Langenkamp (2010) describes the relationship with teachers as one of the most important components of student success. Teachers play a vital role in providing encouragement and fostering a love of learning in their students. As teachers' perceptions about their experiences with supporting student transition have often been neglected in educational research on transition and student retention, this is an area where more research is needed.

While I did not find evidence of authors highlighting the same gaps in the literature that I have referred to here, several authors have addressed other gaps in educational transitions and the transition to higher education. For example, Weiss and Bearman (2007) reference gaps in the research around how school transitions impact well being. Similarly, Smith et al. (2008) acknowledge that much of the existing research is limited to organisational structures within institutions or student perceptions of transition in the academic and social realms.

2.5 Synthesis of the Literature Review

The final section of this chapter summarises the potential contributions of this research to the field and outlines the rationale for both the research questions and the methodology. As discussed in chapter one, the findings of this study aim to help teachers and educational leaders better understand the role that teachers believe they play in supporting students. Furthermore, the results of this study can provide support to inform how to provide opportunities for teachers and schools to better support graduating high school students. This could allow local professional learning opportunities and resources to better support teachers' work to prepare and support students. This research also offers a unique perspective into the actual experiences of teachers as

they prepare students for the transition to higher education. As discussed previously in this chapter, this perspective is seemingly under-represented in the literature.

This literature review highlights the gap in educational research in terms of high school teachers and how they experience supporting the preparation of students for higher education. Though chapter three will provide specific details about methodology and rationale, it can be noted at this point that I selected Interpretive Phenomenological Analysis (IPA) to help elicit a greater understanding of this lived experience. As stated in section 1.5, the question to be answered by this study are: How do teachers experience preparing grade 12 students for higher education?

CHAPTER 3 – RESEARCH DESIGN PROCESS

3.1 Introduction

This study utilised Interpretive Phenomenological Analysis (IPA), a research method with theoretical origins in phenomenology and hermeneutics. IPA makes meaning out of lived experiences through an interpretive and double hermeneutic process. This process involves the researcher making sense of participants' sensemaking, providing meaning by interpreting their experience. By making sense of and providing an interpretation of participants' experiences, researchers can gain perspective on the phenomenon the participant experienced. This chapter will outline the different methodological approaches considered, a justification for the eventual selection of IPA, information about participant recruitment, data collection and analysis, and finally, a discussion of ethics.

3.2 A Consideration of the Research Problem from Different Methodological Perspectives

Once I decided to research the transition from high school to higher education, particularly from the perspective of high school teachers, several methodological perspectives were considered before finally proceeding with IPA. Grounded theory, Ethnography, and Descriptive Phenomenology were all early considerations for potential methodologies.

3.2.1 Grounded Theory

Very early in the thesis stage, I considered Grounded Theory (GT) as a potential methodology. Grounded Theory, first developed by Glaser and Strauss (1967), utilises comparative analysis to construct a theory that is "grounded" by the data generated in the study.

Chun Tie, Birks, and Francis (2019) describe GT as a structured (yet flexible) methodology most appropriate when little is known about a particular phenomenon. While multiple forms of GT now exist, Glaser and Strauss's initial framework was built upon constant comparison and theoretical sampling. In this way, Suddaby (2006) describes the reality of simultaneous data collection and analysis and sampling driven by the type of theory being constructed. Thornberg, Perhamus, and Charmaz (2014) describe this process as iterative, an interactive form of inquiry. The inductive logic of GT allows researchers to begin with individual stories and move to abstract concepts and eventually theories. Hutchinson (1986) describes GT as well suited for studies on people sharing circumstances and the patterns that exist. For this reason, it was a reasonable initial consideration.

GT studies arise from research questions that ask about people in particular contexts. For this specific study, that likely would have meant asking something like, "how do high school teachers prepare students for higher education?' This question is certainly reasonable to ask, but there are several reasons why I decided against it. First, though it is possible to conduct GT studies when one has substantial knowledge on a particular topic, Suddaby (2006) presents some concern that prior knowledge makes it more difficult for a researcher to observe and not unknowingly (or knowingly) test a pre-existing hypothesis. Furthermore, very early in the literature review, it was clear that literature on the transition to higher education is relatively abundant.

3.2.2 Ethnography

Another initial consideration for methodology was Ethnography, described by Morgan-Trimmer and Wood (2016) as a long-term participant observation seeking to learn the culture of a particular environment. Jones and Smith (2017) similarly describe Ethnography, highlighting its capacity to learn about people rather than study them. Ethnography was an appealing consideration as it would allow for the use of a constructivist and interpretive paradigm to study how high school teachers interact with their students as they prepare them for transition. This type of study could have involved mixed methods, perhaps utilising both qualitative and quantitative measures.

Despite the potential alignment with my research interests, I decided against Ethnography for two main reasons. First, culture is one of the many components I hoped to look at within teacher experience. However, I was also interested in learning more about all of the factors that impact how teachers interpret their experiences. The second and perhaps most relevant reason I did not select Ethnography for this thesis was that the relative time frame I hoped to complete the EdD program (and thus devote to this study) within did not warrant the time required for this particular methodology.

3.2.3 Descriptive Phenomenology

Exploring multiple methodologies allowed for the refinement of both research topic and question, and as such, was an incredibly beneficial component of the thesis process. While considering GT and Ethnography, I noticed that many studies that researched lived experiences

in areas that were not previously well explored within the literature fell under the umbrella of Phenomenology. Reiners (2012) notes that Phenomenology is an inductive qualitative research approach used frequently for studies within healthcare where one can draw many parallels to education. Reiners describes the fundamental goals of nursing as delivering quality care and understanding patients. I believe that if one were to remove the terms "care" and "patients" and replace them with "education" and "students", the statement would fully apply to teachers as well.

Descriptive Phenomenology (DP) allows for exploring and describing lived experiences (Christensen, Welch, & Barr, 2017). Matua and Van Der Wal (2015) describe the usage of DP within the literature as confined mostly to illuminating poorly understood aspects of particular experiences. This contrasts with Interpretive Phenomenological Analysis (IPA), which is concerned with examining experiences in the context of other factors such as culture and gender (which may also be under-represented within the literature). DP is used when a researcher first "brackets" their biases (Reiners, 2012). Chan, Fung, and Chien (2013) describe bracketing as deliberately setting aside their previous experiences and associated biases to describe a phenomenon as it exists. Bracketing includes delaying conducting literature reviews until after data collection. IPA does not bracket prior experience but instead assumes that the researcher is an integral research component. I did not select DP for two primary reasons. First, there was an interest in gaining a deeper understanding of the experience of teachers as they prepare students for higher education, which would be significantly aided by looking at all of the potential factors

that affect their experience. Second, as an insider researcher, it would be challenging to bracket my experiences completely.

3.2.4 Why I selected IPA

The research question presented in chapter 1 moved through many versions as I considered different methodologies. It is this research question that has underpinned the design of this study. As indicated in 1.4, the research question for this study was:

1. How do teachers experience preparing grade 12 students for higher education?

To understand how IPA is justified as an appropriate approach for this study, we must also consider the importance of paradigm. Guba and Licoln (1994) define a paradigm as the researcher's entire belief system or worldview. It is how we think about the world, as coloured lenses, that filter through everything we see and do (Killam, 2013). In this way, the researcher's worldview is an essential determinant of how the research is conducted (Cal & Tehmarn, 2016). For this reason, West (2013) recommends that researchers begin the research process with thoughtful consideration of the worldview that best aligns with their beliefs. Only after this decision has been made should one embark upon selecting researching questions and identifying an appropriate methodology to answer the questions posed.

A worldview consists of both ontology and epistemology. The former is concerned with the nature of reality, while the latter is centred on the nature of knowledge and how we explore

the truths of reality. The ontological position informs the epistemology and thus the research direction regarding both the questions asked and the methodologies selected. Killam (2013) suggests that the best research approach is context-specific, depending on the specific questions the researcher is trying to answer. Ontology, the determination of whether reality can exist without the intervention of human interpretation and experience, has been of ongoing debate. The debate essentially lies with the nature of reality; is there a single reality, or are multiple realities possible? The former position aligns with realism and the notion that reality exists separately from our minds and experiences. The latter suggests that reality is created from our experiences and interpretations, generally referred to as relativism. A relativist ontology was most helpful in this research. It acknowledges that reality is a finite and subjective experience; reality is based on human experience and the human experience is reality (Levers, 2013). While certain aspects of preparing students for higher education may be considered objective, such as diversity within the classroom, there is no single reality of the experience. Each teacher will have a different understanding of preparing students for higher education, and this experience becomes their reality. When looking at the transition to higher education, teachers play different roles in supporting the system. Students will receive different levels of support from teachers based on various factors (years of experience, subjects taught, personality, values, and beliefs about the relative importance of transition). Each experience will be unique and contextually specific.

Alase (2017) describes selecting an appropriate methodology as a trifecta of daunting, tedious, and frustrating. It was challenging to choose a methodology that was both flexible and

participant-oriented enough to align readily with gaining a deep understanding of teacher experience. As described above, Grounded Theory, Ethnography, and Descriptive Phenomenology are all approaches that I could have taken but they were not best suited for this particular phenomenon of study (the lived experience of high school teachers preparing students for higher education) and my aims as a researcher (as described in Chapter 1).

IPA was an appropriate methodology selection for this study because it best supported the research objective presented in section 1.5, "to explore how secondary school teachers experience supporting the transition of grade 12 students to higher education". An IPA approach allows for collecting rich, first-hand data from the participants about their experiences. IPA also considers all aspects of participants' experiences and acknowledges the participant as an expert within their context. Additionally, Smith and Shinebourne (2012) describe IPA as beneficial for examining complex and ambiguous topics. IPA was justified given the gap identified in the literature review (Chapter 2) around teacher perspective and experience in preparing students for higher education.

"Experience" is an essential component of IPA. Understanding and describing what is meant by experience, especially in the context of IPA, is challenging given the lack of research in this area. Eatough and Smith (2008) provide a detailed description of experience within the context of IPA. The authors declare that Experience in IPA is about attending to the aspects of experience which matter to people, which means distinguishing which parts of an experience matter more and should be focussed on. Eatough and Smith highlight that this can include the small details of experience, like day to day practices and routines one selects, values, feelings,

beliefs, perceptions, desires, personal accounts, the meaning of events or the whole experience in the context of one's life. Whatever is being studied, experience is the "mineness" that is applied as each experience is subjective, rather than a defined reality.

As discussed earlier in this chapter, IPA was purposefully selected over its descriptive counterpart. This decision was made in acknowledgement that people are a valuable tool for understanding the social context of different phenomena and that one cannot ignore the experiences and biases of the researcher. Like Lopez and Willis (2004), I believe that a researcher's expert knowledge is a valuable guide in the inquiry process that can add meaning to the research. My insider status played a prominent role in the final decision-making process for these reasons.

3.3 Researcher Orientation to IPA: Insider Research

As described in section 1.3.3, this study involved insider research. This positionality has impacted my research in several ways. From the outset, my experience and worldview helped to shape the research questions created, methodology selected, interview questions asked and how I interpreted the responses provided by participants. The interpretive process relies heavily on identifying important themes to the participant, seeing connections within the transcript, and making sense of what the person is saying (Smith et al., 2009). These abilities hinge on one's experience, shaping how we interact with and interpret the data. Insider positionality has both advantages and disadvantages within qualitative research, both of which were apparent within this study.

Several authors in the literature describe the problematic nature of insider research (Berkovic et al., 2020; Brannick & Coghlan, 2007; Dwyer & Buckle, 2009; Merriam et al., 2001). Brannick and Coghlan (2007) discuss the perceived lack of rigour associated with insider research due to the researcher's emotional investment. There is also the potential for shared status within an institution to impede the research process as the researcher may be too close to the issues at hand to ask reflexive questions. Dwyer and Buckle (2009) describe this impediment as participants (purposefully or inadvertently) not fully sharing or describing their experiences as they feel the researcher already understands the context. This could also result in insider researchers not probing further or asking additional questions when more information would be elicited if they had. This was a situation I took note of before asking questions and tried to get participants to expand on their thoughts when they used phrases like "you know", "your experience" or simply when they did not fully describe something that they felt I would already know the details of (which occurred on several occasions). It is also possible that objectivity may be lost as the researcher's personal experience clouds interpretations and analyses of the participant's experience. Merriam et al. (2007) describe this as inherent bias, where the researcher may be too close to the culture even to be able to raise thought-provoking questions. Similarly, Brannick and Coghlan (2007) suggest that insider researchers may be too close to the data and draw assumptions that an outsider may not. These concerns were a partial consideration in my methodological selection as I was aware that it would be difficult for my experience and knowledge to be completely separated from the study. In IPA, my position as an insider could be advantageous rather than a barrier to objectivity.

Insider research also presents many potential advantages to qualitative research, especially within IPA studies. Berkovic et al. (2020) discuss enhanced credibility stemming from shared status within the institution and a more effortless rapport that comes from already having a connection with the participants. As "native" to the setting, insider researchers can also contribute to the research through their own lived experiences. While some might argue that this lack of distance makes objectivity more difficult, Brannick and Coghlan (2007) argue that reflexive awareness, which allows a shift from tacit to theoretical knowledge, is advantageous. This is especially true when one considers the hermeneutic nature of IPA. The researcher is an essential component of the research process, rather than entirely objective and separate from it. Furthermore, the interpretive nature of IPA demands that the researcher gets close with participants- a feat that is much easier to accomplish when a pre-existing relationship (or connection) exists. Regarding my position on insider research, my thoughts on the approach align closely with Dwyer and Buckle's (2009). They argue that insider research is neither better nor worse than other forms of research. Instead, the authors suggest that insider research has equal parts merit and challenge. For all the ways that group membership may enhance the study, there are arguments against its authenticity. A similar position is held by Merriam et al. (2001), who describes an insider's strengths as an outsider's weaknesses (and vice versa). One needs to select the best methodology for their particular research questions. Given the exploratory nature of my research questions, the aforementioned gap in the literature around teacher experience with the transition to higher education, and my position within my district, IPA was selected. Given my role as an insider researcher in this context, it is my responsibility to be aware of the potential impacts of this positionality and exhibit reflexivity. Brannick and Coghlan (2007)

describe this process as one where the researcher intentionally attends to the duality of one's roles (both organisational and research). In this sense, the researcher needs to understand the situation when they are too close and consider the implications of organisational politics in their study.

3.4 Participants and Recruitment Criteria

3.4.1 Population

Alvi (2016) outlines the term "target population" as all members who meet the particular inclusion criterion specified for a research investigation. The population for this study was drawn from secondary Maths and Science teachers in a mid-sized district in British Columbia, Canada. For this study, only teachers that were currently teaching senior science (Biology, Chemistry, Physics) or Math (Foundations of Math, Pre-Calculus, Calculus) were invited to participate. There are currently approximately 45 teachers at the district level that teach one or more of these courses. While it can be argued that all teachers (from preschool onwards) impact students and their transition to life after high school, I purposefully selected only teachers of students in grade twelve Maths and Science courses. Given the desire to learn more about teachers' experiences preparing students for higher education, I wanted to select from a population that was most likely to see this as part of their role. This would be more likely for teachers who were teaching students who would actually attend higher education. Secondary Maths and Science courses are not a graduation requirement in British Columbia (Ministry of Education, 2020). This means that students can graduate without taking these courses. Given the level of difficulty of senior Maths

and Science courses, most students register in these courses either out of a profound interest in the subject area or because of a degree prerequisite requirement in their university of choice. Similar findings would be true for all academic electives (such as specialised Humanities courses and languages). Selecting a homogenous sample in this way aligns with the work of Smith and Osborn (2003) who posit that selecting a more closely defined group allows for a group for whom the research question will be significant. This also speaks directly to the rationale for selecting science and maths teachers, as they would be more likely to have students going on to university and thus more likely to be involved in supporting students' transition to higher education.

3.4.2 Sample

Purposive sampling, a non-probability sampling method used to select specific population members (Tongco, 2007), was utilised for this study. Etikan, Musa, and Alkassim (2016) describe purposive sampling as a type of judgement sampling. It is a non-random decision made by the researcher who is fully aware of the qualities desired in participants. The use of purposive sampling is commonplace in IPA, as IPA protocols require a closely defined sample so that the research question is meaningful for participants (Smith & Shinebourne, 2012). As the researcher in this study, I determined the inclusion and exclusion criteria for the study and purposely invited participants who were members of the clearly defined population.

As Brocki and Wearden (2006) discussed in their study on the critical use of IPA in qualitative studies, the number of participants can vary widely across studies. The sample size

selected depends on a variety of factors. Though there is no right or wrong number of participants, the sample size is usually small to account for the in-depth analysis that must follow. This study had eight participants. This ensured that there was a participant from each school in the district, but was also small enough to allow for a fulsome analysis as required by the IPA protocols of Smith, Flowers, and Larkin (2019). This study utilised the following criteria to include and exclude potential participants:

Table 3.1: Inclusion and Exclusion Criteria for the Study

Inclusion Criteria	Exclusion Criteria
Teachers of grade 12 classes Teachers of senior science (Chemistry, Biology, and Physics), maths, and calculus. Teachers from each of the different secondary schools Teachers of different races, genders, and backgrounds	Teachers in their first two years

Table 3.2 below outlines the description of each participant. Of the eight eventual participants, five were female, and three were male. Participants ranged in age from 40-62 with 8-25 plus years of teaching experience. Two of the eight participants had less than ten years of teaching experience, while the remaining six had more than ten years. Half of the participants taught Maths, while half taught Science (though some had taught both in the past). There was at least one participant from each of the six schools and two participants from the two larger

schools (four participants were from big schools and four were from small schools). Most participants taught junior grades in addition to teaching grade 12 students, though most did not teach in different subject areas outside of maths and science.

Table 3.2: Description of Sample

Participant	**Age Range**	**Gender**	**Years of Experience**	**School Size**	**Teaching Area**
Anna	50-60	Female	25 years plus	large	Maths & Science
Bonnie	40-50	Female	10 years	small	Science (has taught Maths)
Cara	50-60	Female	20 years plus	large	Science (has taught Maths)
Danny	50-60	Male	25 years plus	large	Maths & Science
Erin	40-50	Female	Less than 10 years	small	Science
Felicia	40-50	Female	20 years	large	Maths
Geoff	60-70	Male	10 years	small	Science
Henry	50-60	Male	Almost 30 years	large	Science

3.4.4 Participant Recruitment

After receiving the appropriate consent from the required ethical committees, I was given approval by the gatekeeper of my institution to begin contacting participants. Given that interviews were being conducted over the summer, I was informed that I could contact potential participants directly utilising our school district email. I was told that I could contact school principals as necessary if I needed help to determine which teachers taught senior maths and science courses in each school. In all but one case, I already knew who these teachers were and did not have to investigate further with the school administrators. For the school where I was uncertain which teachers taught senior maths and science, I emailed the principal directly and asked for the teachers' names who taught these courses.

Smith and Shinebourne (2012) address the pragmatic requirement of conducting research, namely that one's sample will in part be defined by who is prepared to be included in it. Eleven teachers were contacted and asked to participate via school district email, which, as an insider, were searchable within the district email database. Of the initial eleven, eight responded that they wished to participate and are included in this study. Two participants declined as they did not have time to participate, and one did not respond. The first three participants all recommended that I interview two (specific) additional staff members from within the district with unique teaching experiences in other countries. I emailed these staff an invitation to participate, but they declined to participate by a lack of response.

3.5 Data Collection Methods

Eitkan, Musa, and Alkassim (2016) describe data collection as a tremendously important component of research as it helps contribute to the understanding of particular topics. Data was collected for this thesis in accordance with IPA protocols as outlined by Smith, Flower, and Larkin (2009), whereby:

- Semi-structured interviews were used for a small number of participants
- Interviews were 60-90 minutes in duration
- Each participant engaged in only one interview
- Participants determined the date and time of the interview
- Technology was used in conjunction with pen and paper notes to collect the required data

In accordance with this protocol, data collection was conducted utilising semi-structured interviews for all eight participants. Semi-structured interviews are a good choice for data collection method in IPA as they allow the researcher and participant to engage in dialogue that can be modified and take new directions as the discussion unfolds (Smith & Shinebourne, 2012). In this regard, many of the interviews felt like a conversation where we could pivot and discuss new topics as the participant recalled additional aspects of their experience. Similarly, Reiter, Stewart, and Bruce (2011) add that in addition to exploring a given phenomenon, semi-structured interviews allow for less formality and are more conversational than traditional interviews in addition to exploring a given phenomenon. As Smith et al's (2009) protocol, each participant was

only interviewed on a single occasion, and all interviews fell within the acceptable time range of 60 to 90 minutes (with most clustering around 70 minutes).

Smith et al. 's (2009) IPA protocols also indicate that the date, time and place of interviews should all be determined by the participant. While the date and time of interviews were participant-determined, as this research was conducted during the global COVID-19 pandemic, there was no possibility of conducting face-to-face interviews. Instead, all interviews were undertaken online through the use of video conferencing. Participants were given the option of which digital platform they wanted to use, though all selected zoom.

COVID-19 added an additional data collection consideration to my study. As a result of the pandemic, many teachers were presented with an increased workload and considerable level of stress. For this reason, I wanted to ensure that all interviews were conducted during the summer months to not add an undue burden to teachers (as most teachers do not have to work in the summer). Furthermore, I did not believe that I would be able to recruit enough participants to conduct the study during the school year. Conducting the interviews in the summer provided a relatively short timeline between ethics approval and the return to school in September. For this reason, all interviews were conducted before formal analysis began. In reality, the interpretation and analysis process truly begins during the interview (as soon as participants begin to speak, we begin to unpack and interpret their interpretations of their experiences). Once they have spoken, we cannot un-hear their words before moving on to the next interview. Had interpretation and data analysis occurred after each individual interview, a similar issue would have occurred in that

we would enter each new interview with the understanding gained from the previous interview (Smith and Osborn, 2003).

Once participants had had time to read the participant information sheet and return the signed consent form, interview dates were confirmed and participants were emailed with a secure zoom log in code that they could access on the day of the interview. As per Smith et al.'s (2009) IPA protocol, interviews were electronically recorded with participant consent. During the interview, detailed notes were recorded on a printed version of the interview schedule that was referred back to during the analysis phase. A verbatim transcript of each interview was produced once all interviews were completed. An interview summary was provided to participants for member checking. Any additional comments made during member checking were recorded and added to the participants' interpretations. This ensured that any interpretation of the data was not just the perception of the interviewer, but rather an accurate summary of the experience of the interviewee.

A great deal of thought was put into the interviews and how questions could be asked that would best allow for participants to share their experiences. As suggested by Pietkiewicz and Smith (2014), a flexible interview schedule was created to guide the facilitation of the conversation and address critical areas that I was hoping to get to. I chose to have this guide printed and laid out in front of me during all interviews so that I could see the plan in its entirety during the interview and streamline the note-taking process. In addition to creating some specific open and expansive interview questions, I also created prompts for each question to help gain a greater understanding of how I might encourage participants to go deeper in their explanations. I

tried to use the plan as a guide and not progress linearly through questions but rather go in whatever natural direction the participant led me. This aligns with Smith et al.'s (2009) description of "good research", whereby the researcher cannot fully construct nor predict the course and content of an interview but instead must move forward with flexibility and learn how to make participants feel at ease with sharing their experience. Furthermore, it follows Smith and Osborn's (2003) description of the role of the researcher in IPA interviews. According to these researchers, the interviewer's role is to facilitate and guide rather than dictate exactly what will happen in the interview. This means that the interviewer does not need to follow the interview schedule exactly. For these reasons, I chose not to ask all questions in every interview, and sometimes questions arose organically in some interviews that were not relevant in others. Follow up questions allowed participants to respond further on what influenced their approach and if it is consistent year upon year.

Smith et al., (2009) describe the importance of the IPA protocol of participants having a good rapport with the interviewer. For this reason, I chose to begin the interviews by asking participants to talk about their journey as a teacher and how they got to their current position. This included asking participants open questions about their teaching style and philosophy of teaching and learning. In addition to these questions providing some helpful information about participants' backgrounds and beliefs, it also served as what Pietkiewicz and Smith (2014) describe as "warm-up questions". Though all participants knew the researcher before the start of the interview, this opening introductory question allowed both parties to settle into the interview and begin a dialogue. Additional questions all sought to enable participants to describe their

experience of supporting grade 12 students as they transition to higher education- actively focussing on their thoughts, beliefs, feelings and interpretations of their experiences. Participants were also asked to reflect on their beliefs about the transition to higher education, challenges and success within their experience, similarities and differences with their experiences teaching other courses, and if their preparatory practice was impacted at all by the COVID-19 pandemic.

Interview questions were influenced by the work of Smith and Osborn (2003) who suggest that a good strategy for interviewing in IPA studies is to engage with the participant in the discussion with as little prompting as possible. This will allow a researcher to get as close as possible to participants' beliefs about their experiences without explicitly leading or guiding their responses. The authors refer to this technique as "funnelling", where participants are asked very open questions to begin and follow up questions are used sparingly (but with increasing direction) to get to the heart of the participants' experiences. In this way, questions begin very generally and are only given additional prompts if the participant appears to require them. As an example of this approach, participants were all asked to describe their experience supporting grade twelve students as they transition to higher education. Examples of questions asked include:

- Can you describe **your** experience supporting grade 12 students as they transition to higher education?
- What influences your approach?

For most participants, this was enough to elicit a detailed and thorough response that often went in many different directions. When participants struggled to answer the question, I made the question more specific and asked what they did in their class that helps students with to

the transition to University. If participants continued to struggle, I asked questions specific to their role in supporting the transition. Though this approach helps to lessen the potential of the researcher leading participants in the interview, Smith and Osborn (2003) caution that interviews that consist mainly of responses from very specific follow up questions may mean a participant was not particularly engaged in the interview and that the information gleaned may be more about the interviewer than the interviewee. My personal experience with this approach was that participants were engaged, but occasionally either did not understand the question or could not think of an immediate response. While no participants required multiple prompts for every question, there were definitely a couple of participants who consistently required further prompting and provided only limited responses.

3.6 Data Analysis

3.6.1 Introduction to Analysis

A central goal of IPA is to analyse and make meaning of the experiences of participants. To do this requires a detailed examination of participants' real-life experiences. The researcher is heavily involved in this process, as they must be the ones to do the analysis. This cannot be done without interjecting one's conceptions. As a result, analysis in IPA is described by Smith and Shinebourne (2012) to require a two-stage interpretive process referred to as double hermeneutic- the participants are making their sense of their experiences while the researcher is trying to make sense of the participants (who are making sense of their world). Smith and

Osborn (2003) describe the data analysis component of IPA research as the researcher engaging in an "interpretative relationship" with the transcript.

3.6.2 Data Analysis Process

Data analysis in this study was influenced by the IPA protocol of Smith et al. (2009), which is outlined in Figure 3.1 below. In this way, analysis is the interpretive work that the researcher does at each stage of the process.

Figure 3.1: How Data Analysis Occurred

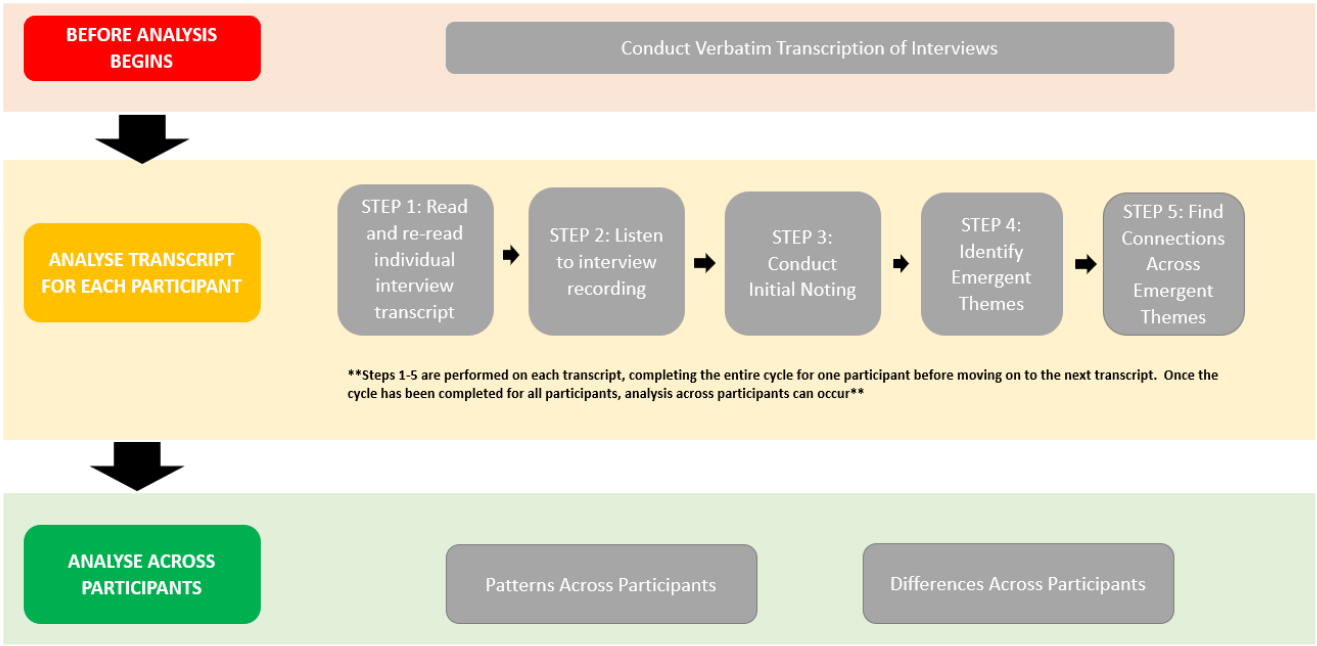

Figure 3.1 highlights the steps of data analysis used in this study which aligns with the work of Smith et al. (2009). The first step of formal analysis began after the interviews had been

transcribed verbatim. As predicted by Evans and Collier (2019), the verbatim transcript of each interview proved a useful tool for both hermeneutic purposes and connecting the perspective of the individual case whilst facilitating the identification and interpretation of patterns across the data set. After transcription, each participant's transcript was treated individually and followed Steps 1 through 5 in Figure 1. As indicated by Step 1 in Figure 1, the transcript was read and reread many times; each time eliciting new exposure to the data and generating new ideas. To further generate ideas, Step 2 involved re-listening to interview recordings. Following the many initial readings and listenings, came step 3, where comments and reflections were added in an attempt to understand the experience. Some comments were a summary of the experiences, some potential connections that arose, and others the initial interpretations of potential meaning. Table 3.3 below highlights some examples of the type of reflections and comments that were added to the transcript.

Table 3.3: Sample Reflections on Participant Transcripts

Participant Comment	**My Reflections**
"I have chosen to stay at that school because it's a pretty at-risk population, but I enjoy working with that group of students and helping" (Bonnie)	● Tells us about her motivation. ● She wants to be helpful and make a difference.
"There is this argument that we don't need to get them ready for university because they aren't in university, but we know these kids are going to university and we want them to have some experience with high stakes tests" (Anna)	● Internal conflict ● What is good for learning may not be what is best for the student
"There are a lot of excellent teachers out there who are really, really smart, way smarter than me. They have more experience, they retained more, but, yet I have, I feel this enthusiasm and relatability that we all kind of make mistakes"	● Belief about self ● Believes the most important thing she brings to the table is her ability to form relationships ● Questions if she is as smart as other teachers

These comments and reflections became the basis for step 4, where coding was used to identify initial and emergent themes within each transcript.

Coding occurred via the generic three-step cycle outlined by Alase (2016). This method of coding consists of first breaking down lengthy responses into meaningful chunks. A second data condensation step allows the "core essence" to be identified. Finally, the third step involves breaking down the core essence into a few words, identified by Alase as the "meaning units". This coding process was done by hand on a printed document and was aided by the use of colour coding (highlighters), a method described by Alase (2017) as a practical method of categorising themes for analysis. Initially, codes were listed chronologically as they came up in the interview. Once all themes were labelled, they were clustered based on common similarities and connections. Many themes began to have apparent sub-themes. This process of finding connections between the themes within a single interview is referred to as Step 5 in Figure 1.

After all five steps were completed for a single participant, the process was started over for a new interview. Once the process was completed for all 8 interviews, a summary table and narrative for each participant was created to highlight their lived experiences and initial themes that arose. This process aligns with the "long paragraph" approach described by Alase (2017). In this regard, this step of analysis describes both "what" the participants have experienced and "how" they experienced the phenomenon in a contextual format. After analysis and cross-referencing of all interviews was completed, a final table of superordinate themes with sub-themes was created. This required analysis to determine the similarities and differences that

arose between the themes found in each participant and the meaning that could be drawn from them.

3.6.3 The Interpretive Process

Analysis in IPA requires the researcher to engage in interpretations of the participants' experiences as shared in the semi-structured interviews. The theory of interpretation which informs IPA is hermeneutics. The steps of data analysis utilised in this study were outlined in Figure 1 and are based on the work of Smith et al. (2009). Though flexibility and reflexivity are important components of analysis in IPA, the interpretation of participants' experiences by the researcher is paramount to creating meaningful work (Consider, 2017). In fact, from a Heideggerian perspective, 'the meaning of phenomenological description as a method lies in interpretation' (Heidegger, 1962, p.37). Furthermore, Heidegger posits that every interpretation is contextualised by our previous experiences.

The interpretation strategy utilised in this study was informed by the work of Larkin et al. (2006) who suggest that interpretation be informed by prior experience and knowledge, psychological theory, and the literature. Using the Hermeneutic circle, understanding of participants' experiences was gained by consistently moving between the individual components and the whole (Heidegger, 1962). Additionally, while creating initial notes (as indicated by Step 3 of Figure 1), I utilised the approach suggested by Larkin et al. (2006), Shinebourne (2011), and Smith et al. (2009) whereby analysis for each individual transcript makes use of multiple layers of interpretation. The noting from each re-reading had a different focus; beginning with an

empathetic reading of the participants' feelings, moving to an interpretative stance, and then finally looking more conceptually. This was important to ensure that it was clear what matters to each participant but also to convey something about why it matters.

Both Smith (2007) and Finley (2008) address the challenge of researcher experience as the main component of interpretation, namely that it can serve as an obstacle in interpretation free of emphasis on preconceptions. Instead, the authors suggest the importance of critically reflecting on how the researchers' pre-understanding impacts the analysis. In this study, this meant moving back to the original text after each stage of analysis to ensure that the interpretation was a product of the actual words shared by the participant. This aligns with the approach of Smith et al. (2009) who suggest that the best interpretations are "based on a reading from within the terms of the text which the participant has produced" (p.37). Additionally, participant member-checking ensured that the interpretations were accurate, and not just the reflections of the researcher.

3.6.4 How Data Analysis Informed the Structure of This Thesis

Once data had been analysed, I needed to consider how I would structure the remainder of the chapters in this thesis. Though there are multiple means of conducting and writing up IPA studies, Smith and Osborn (2003) describe two widely utilised presentation formats that I gave in-depth consideration for. The first method involves having a 'results' chapter that contains the emergent thematic analysis followed by a separate 'discussion' chapter that links that analysis to the extant literature. The alternative strategy involves discussing the links to the literature while

presenting each theme in a single 'results and discussion' chapter. To follow the holistic approach adopted by Smith et al. (2009) that looks at each experience as a unique entity, I chose to utilise the first method of distinct chapters. For this reason, I chose to present Chapter 4 through the individual experiences of each participant and chose to address and discuss commonalities and differences as they related to the literature within the discussion of Chapter 5. This approach also allowed me to create the "long paragraph" described by Alase (2017) as the final step of analysis in IPA. This paragraph describes to readers "what" the participants have experienced and "how" they experienced the phenomenon in a contextual format. Given that analysis continues throughout the writing of the findings and discussion, this particular decision purposefully impacted how I looked at interpretation in this study. Rather than a comparative analysis, the chapters were organised so that I could be sure to holistically interpret and analyse each interview as its own before looking for any similarities or differences amongst the experiences.

3.7 Ethics

Halai (2006) highlights the importance of morality and ethics within sound research, arguing that one of the most important responsibilities bestowed upon researchers is ensuring that the interests of those participating in a study are not harmed as a result of the research being done. To this end, researchers must consider confidentiality, risks, safeguards, potential benefits, autonomy, malevolence, benevolence, and justice in order to undertake ethical research. How these areas were considered for this study are discussed below.

3.7.1 Consent

Research in the Research District is guided by an Administrative Procedure that outlines the formal process by which research within the district is approved by the board and senior leadership team. The Superintendent (or his designate) screens and approves applications for research projects, subject to the guidelines outlined in the administrative procedure. According to this procedure, research projects must be sponsored and supervised by a recognised post-secondary institution and meet screening requirements in terms of sensitivity, intrusiveness, personal information, methodology, timelines, scope, relevance, confidentiality, and timeliness. There is a commitment for a full report of findings to be presented to the district upon completing the project. A request for permission along with relevant documentation (ethics proposal, participant information sheet, and consent forms) was emailed to the superintendent and the assistant superintendent for approval, which was received on July 2, 2020.

In addition to gaining district consent, an application was also submitted to the University of Liverpool Ethics Committee (VPREC). This application included a research proposal, the Participant Information Sheet (PIS), the consent form, a signed letter of permission from my school district, and the ethics application and approval form. Ethics approval from the VPREC was received on July 20, 2020. All of these documents can be found in the appendix.

3.7.2 Confidentiality

Sieber (1993, p. 52) defines confidentiality as the researcher's "agreements with persons about what may be done with their data". For this study, participants were informed that their

identity would be known only to me in the participant information form before the research began. Additionally, participants were not told the identities of any of the other participants. Each participant was given a pseudonym at the recording transcription phase, and care has been given to ensure that descriptors of participants did not make them easily identifiable by others within the district (or elsewhere). Kaiser (2009) refers to this as deductive disclosure, where the traits of individual participants make them identifiable within the final write up. To alleviate this concern, potentially identifying information (such as age, years of service, specific teaching background) have been removed and are only shared as ranges or as descriptors of participants as a whole.

3.7.3 Autonomy

Giordano et al. (2007) describe autonomy, a person's ability to make their own decisions about what they agree to, as an essential component of confidentiality. Participation in this study was voluntary; no one was coerced into participating. Participants faced no personal or professional repercussions from not participating and were clearly informed that this research was being conducted as part of my work in the EdD program at the University of Liverpool and was in no way associated with my role as District Learning Coordinator or vice-principal.

3.7.4 Risks

While attempts were made to mitigate potential sources of risk, any research that is conducted comes with potential risk to the participant (Hadjistavropoulos& Smythe, 2001). Smythe and Murray (2000) posit that much of the risk (and unforeseeable consequences) comes

from writing about people's lives and the impact of having their experiences interpreted. For this reason, the interpretative process followed the guidelines outlined by Smith et al. (2009). Given that participants were not from at-risk or vulnerable populations, the main risks of participating in this study stemmed mainly from the time required to participate.

3.7.5 Safeguards

Josselson (2007) describes ethical safeguarding for narrative research in terms that are very similar to what is needed in IPA. Specifically, the author discusses the explicit and implicit contract that is required between the researcher and the participant. The explicit contract clearly states the roles that exist, namely what the researcher will be doing and what will be expected of the participant. In this study, all participants were given a participant information sheet outlining the details of the study and providing them with an opportunity for informed consent.

3.7.6 Potential Benefits

Participants had the opportunity to discuss their professional practice and provide examples of their experiences with preparing students for the transition to higher education. Sometimes, this sort of professional practice can be helpful in building capacity amongst teachers. Brody (1987) describes how storytelling, such as that which occurs in narrative and hermeneutic research, has the capacity to heal both the teller and the listener. Furthermore, while participants may have benefitted from engaging in a discussion about their professional practice and experiences, it is possible that this experience will allow them to appreciate what they do and be able to frame this in a positive light rather than provoking feelings of stress. Hutchinson,

Wilson, and Wilson (1994) describe the many possible benefits that participants may gain from participating in interviews for qualitative research, which include: catharsis, self-acknowledgement, sense of purpose, empowerment, self-awareness, healing, and providing a voice for the disenfranchised.

3.7.7 Benevolence

The purpose of educational research is to discover new information that would be helpful to society. Participants were given the opportunity to share their experience, which may provide opportunities to build capacity amongst other teachers in the future. Furthermore, exploring their own practice with a critical and reflective lens may have allowed for the necessary introspection to improve their own practice. Often, simply the act of discussing practice could provide a positive impact for teachers.

3.7.8 Malevolence

A central consideration of research is that it must, first and foremost, do no harm. Though unlikely, participants may have become distressed about their practice and the pressure placed on teachers to help students succeed. Furthermore, this study was conducted during the COVID-19 pandemic; a time where teachers were feeling stressed and overwhelmed with the increased workload being placed upon them. For this reason, interviews were all conducted during the summer (non-working) months for teachers, so as to minimise the chance of adding undue stress or harm to the participants.

3.8 Limitations of the research

It is important to acknowledge the limitations of this research, many of which stem from its Qualitative research design. Sampling was conducted purposively, that is non-randomly ensuring that particular categories of cases within a sampling universe were represented in the final sample (Robinson, 2014). The rationale for using this sampling strategy stems from Robinson's (2014) assumption that certain individuals have a unique and important understanding of a particular phenomenon and it is important that they are included. All participants were teachers who expressed an interest in discussing their experience with preparing students for higher education and were willing to give up their personal time in the summer to do so. This is limiting as it decreases the generalizability of the findings as the study targeted participants based on specific criteria. Finally, all teachers were staff in the same school district on the West Coast of British Columbia.

One can find further limitations in my capacity (or, more aptly, inexperience) as an interviewer. In semi-structured interviews, the data's quality is often dependent upon the quality of the questions asked. Furthermore, as a semi-structured interview, participants often responded to questions differently, which allowed them to wander into other discussion areas. Not all participants received precisely the same questions or answered them the same way. As a result, it is more difficult to compare the responses of the respondents. In addition, all interviews were conducted virtually through the use of Zoom. Any non-verbal responses that may have aided in interpreting data were not as easily identifiable as they would have been in face-to-face interviews. Finally, as part of a qualitative study, there is always the risk that the interviewer's

presence may influence the participant's response or that a different interviewer may have very different interpretations of the interviewee's responses. Due to the interviewer's positionality as an insider researcher, all participants knew the interviewer, which may have also impacted their comfort and responses (positively or negatively).

CHAPTER 4- FINDINGS FROM INDIVIDUAL PARTICIPANTS

4.1 Introduction

The purpose of this Interpretive Phenomenological investigation was to explore how secondary school teachers experience supporting the transition of grade 12 students to higher education. In this chapter, I provide a phenomenological and interpretative narrative of the research findings for each participant based on the process outlined by Smith et al. (2009). In sticking with the protocols outlined by these authors, and as discussed in the previous chapter, this chapter will provide the findings for each participant individually and holistically. Chapter 5 provides a thematic analysis of themes across participants as well as links to the existing literature. The rationale for this decision, as discussed in Chapter 3, is to ensure that each participant's unique experience is understood fully before situating it amongst other participants' experiences.

Each section of this chapter will begin with a pen portrait, provided for the reader to gain a greater sense of each participant's context. After introducing and describing the participants, themes for each participant will be discussed citing evidence from their interviews for justification of inclusion.

4.2 Participant A- Anna

4.2.1 Pen Portrait of Anna

Anna is a senior Maths and Science teacher at a large school in the Research District. She is 50-60 years old and has taught at numerous schools in her 25 plus year career. Anna's

experience is mostly centred around teaching grade 12 Maths students in two different Maths streams (Foundations of Math 12 and Pre-calculus 12). Her experiences as a teacher in these courses and her expectations of students shift depending on which of these courses she is teaching. She believes in experiential learning and the notion that students need to be active and engaged participants in their own learning. She describes herself as a structured and methodical teacher but likes to give students a lot of time to play. Three superordinate themes, detailed below, were identified for Anna.

4.2.2 Theme 1: Frustration with High School Students' lack of "Grit"

I selected this theme for Anna because she addressed the student's lack of grit as the central point of many of her responses. Anna spoke candidly about what she feels students need (and are often lacking) to successfully transition to higher education. She discussed the need for students to have coping strategies when they face challenges and reluctantly used the term "grit" to describe the tenacity, and ultimately belief in themselves, that is needed to "fall back on when things get tough". While she initially used this description to speak of the transition to higher education, she fell into a pattern of describing her day to day experience with students in building confidence and resilience. Anna discussed how this starts in grade 8, where she works to build a sense of confidence in students that they will get it eventually if they just keep trying. Anna described the role of teachers as to "instil that 'I can-ness' in them", effectively demonstrating the process by which she develops grit within her students. Anna's beliefs appear to stem from her own experience as a learner who succeeded easily in high school but struggled (Anna used the term "floundered") in her first year of university. Anna believes this is because

she had never experienced adversity before. Anna's approach to supporting students is to ensure that they are presented with opportunities to face adversity.

4.2.3 Theme 2: Struggle with Navigating between Two Very Different Systems

Beyond building capacity within students, Anna also acknowledged the struggle navigating between differences that exist between secondary and higher education systems. Many terms arose throughout the interview that implied her experience in the high school system lacks the rigour commonly perceived to be associated with higher education. She referred to high school students as having their "hand-held" and being "coddled". In this way, she described the secondary system as one that is lesser and perhaps needs reform to be more like the system students will see at university. She detailed the steps she takes to make her class emulate higher education, describing her Maths course as a "university preparatory course". Anna describes her experience teaching her course:

> "It is not for fun. It is not a high school course really. It is, but it isn't. Kids take it for a special reason. If you go to University it is not all fun and games, fairy circles and lollipops. It is high stake."

Her beliefs about higher education, that it is "high stakes" and "no fun" impact how she experiences and runs her own courses, as she strives to design them in the same way.

Anna described her perception that many grade 12 teachers feel at least some degree of pressure to prepare students for higher education (like she does), but acknowledged that high school students are not actually in a system of higher education yet, so teachers are not required

to emulate it. Furthermore, she posed the question if truly emulating higher education was either possible or necessary. Anna commented on the structural differences between the two systems, such as the much larger campus size, larger classes, and relative anonymity and acknowledged that these factors would be difficult to replicate, even if one wanted to. Students come into high school knowing that the teacher is there to support them and to help them prepare for their next step. Relationships are an incredibly important part of the teaching process in high school.

4.2.4 Theme 3: Frustration That Not All Teachers Intentionally Prepare Students for the Transition to Higher Education

Anna is passionate about her role in preparing students by developing their confidence in their ability as mathematicians. This can be seen by how enthusiastically and passionately she described her classroom. She spoke of her intentional acts to help students develop confidence in math, by providing opportunities for students to foster self-advocacy (mostly in terms of asking for help), providing multiple means of student engagement, and by treating them like adults who can access the information at a time that works for them, not at a predetermined teacher time, generally accomplished through the use of technology. This aligns with her beliefs that students should learn to be resourceful by finding their own information online and by becoming part of a learning community.

Anna believes that one of the challenges of preparing students for university is found in the contextually specific nature of student experiences. She described how students in the Research District go on to many different Post-Secondary Institutions in a variety of different programs,

and how this creates challenges in adequately preparing them. For this reason she finds it frustrating that many teachers do not intentionally aim to prepare students for the transition. Furthermore, the University experience is so individualised, she believes it is really hard to provide preparation that will apply to everyone. She argues that students have to find ways to prepare themselves, making use of opportunities like the maths contest clubs, student's council, or even by taking an advanced placement course.

4.2.5 Participant A Conclusion

Despite Anna's own acknowledgement that it is skills and not content that is paramount for the successful transition to higher education, she works to prepare students by emulating the system that they will be in, not necessarily building the skills that she deemed necessary in the first place. While she questions if this is the right approach, she also references the pressures teachers feel to prepare students. She acknowledges that they are different systems that do not serve the same purpose, so it is unnecessary for one to mimic the other. In this regard, her beliefs and the actions she describes she takes in the classroom do not always align.

4.3 Participant B- Bonnie

4.3.1 Pen Portrait of Bonnie

Bonnie has been teaching for over ten years and has held a position in almost every school in the district. She has taught a variety of different courses across all faculties in her career. Bonnie is 40-50 years old and is currently teaching a senior science at a small high school in the district. She came into the interview having spent a considerable amount of time thinking about the transition to higher education and her role within it. Bonnie is more uniquely tied to

higher education than other participants having a partner that teaches at the local university and coming from a family of distinguished academics (parents and grandparents having PhD's). She has also spent time working in a university lab as a lab technician. Because of this background, she describes her approach to teaching as "grounded in research". Bonnie was an enthusiastic participant in the interview and self-proclaimed that it was a topic of interest to her that she had spent a lot of time thinking about. Four superordinate themes were identified for Bonnie.

4.3.2 Conflict with Wanting to Prepare Students For the Transition to Higher Education but not Believing the Research District has the Capacity to do so

I selected Bonnie's first theme as much of her experience seems to stem from her underlying and conflicting beliefs about supporting students and the current capacity of schools in the Research District to prepare students for the transition to higher education. Bonnie identified that, in her experience, high school students do not have realistic expectations about what university will be like. Bonnie felt that students need to be prepared to manage stress and many of the mental health pieces that come with university. Furthermore, she believes that high schools are not always preparing students with these skills. In Bonnie's experience, it is not uncommon for students who were strong A-grade students to come back from university after the first year having "completely withered" because they were used to a "hand-holding" that did not exist in university academic culture. As soon as they start to do poorly, they crumble and view their current reality as a personality flaw. Bonnie argued that in many ways, student identity is tied up with performance. When that performance is lower than they are accustomed to, it really challenges their sense of self. Bonnie described this common student experience as:

> "Who the hell am I, I am not getting A's. I must not be good enough. As opposed to a Growth mindset. I knew it was going to be hard, this is where I hit this, I have hit this before, I know what to do with this".

Essentially, Bonnie described how students really need to utilise a growth mindset (Dweck, 2015) to work their way through the more challenging material and less guided environment that exists in higher education.

Bonnie describes the current district culture that exists, at least within her current school and experience, as one that does not prepare students for the transition to higher education. She describes the frustration she feels from district policy aimed at success for all students, acknowledging that her opinion may be unpopular. Essentially, Bonnie worries that in an attempt to have all students be successful, a lower ceiling is placed on academic students who she perceives need opportunities for challenge in order to build the capacity needed to be successful in higher education. Bonnie used Shelley Moore, a prominent Canadian Special Education Teacher, Motivational Speaker, and Author to address her point. Moore has a philosophy of education that promotes Universal Design for Learning, where we view teaching much like bowling. If we aim for the centre pins and only knock those down, we are left with the outside pins standing. Termed a 7-10 split, it is the hardest shot to shoot in bowling. Moore hypothesises that if we shift our practice to plan for the outside pins (those that struggle and those that need extension), then by definition "average" students will have what they need (Moore, 2017). Bonnie addresses current district culture using Moore's analogy, suggesting that the success for all approach does not satisfy the needs of all students. Specifically, Bonnie

highlights that “never did Shelley Moore say only hit the low pins. Her whole thing was low and high.” While Bonnie clarified that she did not love addressing any students as “low pins”, she did feel that the impact of this philosophy was a lower achievement standard for all students.

4.3.3 Belief that Small School Context Shapes the Teacher and Student Experience

The differences that exist across different-sized schools was selected as the second theme because it reflects Bonnie’s beliefs and experience of how school context impacts her experience of preparing students for higher education. As in most small schools in the district, Bonnie is usually the only teacher assigned to all students that take her senior science courses. This provides the opportunity to build relationships with students (Mizell, 2019), which Bonnie identified as an important component in working with students (and preparing them for the transition to higher education). It also allows for a greater understanding of where students find their strengths and struggles as the teacher can work with students from one course to the next.

Bonnie suggested that the socio-economic reality of her school highlights how many learning opportunities are actually targeted for privileged students. For example, she spoke of students in her school who were required to work many hours per week to contribute financially to the family income. Other students were a critical component of sibling care within the family. She described having students that walk the street for hours at night because a parent is drinking or abusive. Because of these complex realities, the notion of a flipped classroom or reliance on a tool like google classroom (commonly used elsewhere in the district) is based on assumptions of both affluence and time, which are just not realities for many of the students in her classes.

Bonnie's experience teaching within a small school with a large proportion of vulnerable students, was markedly different from her experience teaching in other (larger) schools within the district. She described her school in this way because of the large proportion of students of indigenous ancestry, in the care of the Ministry of Children and Families, or facing poverty. Bonnie noticed that the culture in her school had become one with a large emphasis on students feeling "any sort of success and/or achievement", that many traditional standards had been loosened. In her experience, this translates to overly flexible teachers that provide endless re-writes of near-identical tests with no constraints on time. She described students that were frequently given three hours to complete a chapter test, who were able to come back on a different day and spend an additional several hours. If that still didn't go well, many students took the opportunity to write a re-test where only the numbers were changed. Bonnie believed this to be a unique experience to her school, as this was not her experience with other (usually larger) schools within the district. In an attempt to keep students engaged, she described a culture of low expectations for students and acknowledges that this does not set them up for success in University.

4.3.4 Frustration and Concern With Students' Lack of Undivided Attention Due to Technology

Technology was a topic that Bonnie wanted to address during the interview. More specifically, and included here as one of Bonnie's themes, is her frustration and concern with the negative impact that technology has on her students as it takes their focus away from the task at hand. Bonnie spoke passionately about her belief that students need to have strong self-regulation abilities in terms of time management, stress management, and social media

management in order to do well in school. This includes the challenges students face with switch-tasking, constantly shifting between two tasks, and the overwhelming effect it is having on their ability to concentrate and be creatively productive (Klimova, 2019). When speaking about the impact of social media, Bonnie acknowledged that part of the problem is that academically challenging courses such as the senior science course she teaches, require undivided attention and the use of the whole brain. She sees the constant draw of the phone for students and the amount of time they spend procrastinating on it. Bonnie believed that using time in this way makes it challenging for students to engage in their studies in the way they need to. Furthermore, Bonnie spoke to the profound deficits in maths that she is seeing in her senior science students, and how this means that she has to spend a large portion of her time focussing on general maths skills. Using time in this way reduces the amount of time she can spend on things like labs, which she feels are important for students who are going on to science in university. Bonnie also believed that some of the gaps in mathematical understanding are directly related to the lack of sustained concentration that is coming from the constant pull away from the phones. For this reason, she provides explicit learning opportunities on the harm of switch tasking and teaches students strategies on how to stay focussed in class.

4.3.5 Formative Assessment as an Explicit Teaching Strategy to Impact the Transition to Higher Education

The final theme selected for Bonnie is her selection of formative teaching strategies that impact student transition to higher education. Bonnie described adopting strong formative assessment practices as an essential component of her experience with improving student

achievement. Bonnie is a firm believer in having students work together in groups to solidify their learning, often making use of whatever vertical spaces they could find within the room (including the board, walls, windows, and lab benches). She provides many low-pressure practice opportunities and makes use of inquiry within her classroom for student engagement.

Bonnie described how she supports the transition to higher education by attempting to mirror the expectations that students would see in university, providing realistic time frames to help students with time management, and openly and transparently discussing the rationale behind the decisions made in class (especially around instruction and assessment). She describes why these strategies are important:

> "I sometimes feel like an old codger now, like a person I never thought I would become earlier in my career. What I have basically seen is that kids right now, they don't put the time to practice. So, what has happened in lath is this creep, that they will study for the quiz. When they bomb the quiz, they go back and look up those exact questions and they are allowed to re-do it up to 100%. They don't learn the general understanding of concepts".

Furthermore, Bonnie organised opportunities for past graduates to come back to the school and speak to their peers about their experiences in the first year and what they wished they would have known before they started. The department chairs of physics and chemistry at the local university would often come to speak with her class about their programs, and what they needed from students who wanted to be successful.

4.3.6 Participant B Conclusion

The themes identified for Bonnie all suggest a system that is not preparing students for the transition to higher education. She spoke of the current culture in high schools as one that does not always have the capacity to support students as they transition to higher education. Bonnie described the contextually different experience when it comes to preparing students and providing opportunities because of the small size of her school. This inequality needs to be addressed in some capacity to help support students. Bonnie's frustration with the rampant misuse of technology is another component of culture that impacts how she can prepare students. Finally, the formative strategies that she uses in her classroom address the specific context and needs of the school. They also can have a large impact on school culture but are not well utilised by all staff.

4.4 Participant C- Cara

4.4.1 Pen Portrait of Cara

Cara is a 50-60-year-old Science teacher that has spent much of her more than twenty-year career teaching at the same large high school. Early in her career she spent a semester as a Teacher on Call (substitute teacher) and has also taught Maths and information technology. She describes herself as a fun teacher and thinks that students need to see materials presented in many different ways in order to learn it. She also believes in hands-on learning and the importance of actually learning the material as opposed to just being exposed to it. At times, Cara struggled to engage with the interview process. Her comments were initially very short and she frequently required follow up questions to get to the heart of her experience.

4.4.2 Inconsistent Beliefs of Teacher Role in Supporting the Transition to Higher Education

Cara has inconsistent beliefs about the role that teachers play in the transition to higher education. For this reason, it is presented here as the first theme. Cara believes that preparing students for higher education is an important part of her job as she believes that university is important and wants students to do well once they are there. Cara does not believe that this role is true for all teachers. When probed Cara felt that it was part of her job as a teacher to prepare grade 12 students for the transition to higher education, she thought that the question was controversial and that many teachers might take issue with answering it. Cara described why she thought not all teachers share in this role:

> "Talking to some teachers, when you talk to them about how, you know, why aren't students doing this? How can we make them do this? And why aren't they trying as hard as they need to, they really need to? Some teachers are just whatever. It's not…...They'll go on and be somebody else's problem. And I don't feel like it's somebody else's problem."

While her initial response made it sound like she didn't believe that preparing students for higher education should be part of a teacher's role, interpreting her response it seems that what she really meant is that not all teachers agree that this is part of their role. Given that Cara shares this view, she struggles internally with what happens in other teachers' classrooms, which will be discussed in later themes.

4.4.3 The Role Students Play in Supporting their own Transition Should not Be Neglected

Cara kept coming back to the idea that students need to have a role in their own preparation for higher education, and as such, it is included as a theme here. Some of the language used indicates that Cara is not satisfied that students are doing what they need to be successful. Cara described students as "spoon -fed" by their teachers in high school, and as more interested in finding an easy way out than learning the material. She describes what students need to move past this:

> "They need to be able to learn by themselves. Without someone poking at them and reminding them that they need to keep working or keep doing it or reminding them, ok you need to do this."

Cara also experienced many students that had high expectations in terms of how they wanted to do in the course and what they wanted to do with their life in the future, but often appeared to lack the will and drive to actually follow through.

> "They have these high expectations. I'm going to do this. I want to be able to do that. But when it comes down to it, they don't want to put in the amount of effort it is going to take to get to the goal".

In this way, Cara is really describing the transition difficulties that many students face as self-made- a characterization that highlights the extreme expectations that she has for her students. Students can minimise the struggles they face in university by putting in more effort and further developing their skills during their time in high school.

4.4.4 Students Need to Develop as Learners

While sharing her experience, Cara commented multiple times that she values helping students learn content and how to learn. As discussed previously, she believes that students need to become independent learners, are capable of studying, taking good notes, and being organised in order to be able to successfully transition to university. She believes they need to take ownership of their learning and recognize the help their teacher was providing. Cara's experience preparing students for these skills involved providing students frequent quizzes, interactive learning opportunities, hands-on labs, and multiple opportunities for review. In terms of preparation for higher education, Cara chose to focus on teaching students how to study, as this is at the core of her beliefs of what students need to be successful at the next level of schooling.

4.4.5 Inconsistency Between Teaching Styles of Staff Makes it Difficult for Equitable Preparation of All Students.

Cara was animated about her perception of the impact that differences in teaching styles and beliefs between teachers in the same faculty have on student experiences. Cara believed that there is an inconsistent approach to instruction and assessment within her department, a fact she believes to be well known by staff and students. The key differences are perceived by Cara to exist in terms of rigour and assessment, with some teachers providing very high marks to students with little (apparent) effort. Cara described this competition as making her job more challenging, as students reported wanting to take the class with a teacher that they felt is easier to

get an A with. Cara describes the other teacher as “basically giving away free marks for not really doing very much or learning very much”. This tells us she holds rigour and accountability as important standards in her practice.

Cara also commented on her experience working with students that struggled with taking formal tests and frequently reported test anxiety. In Cara’s experience, the test anxiety that students experience often is often related to other factors. She believes that what students perceive or report as anxiety is often a lack of preparedness or fear of failure, a further indication that her expectations for students are quite extreme. Her evidence for this was that further verbal questioning techniques of these students did not uncover an in-depth understanding of the material. She describes:

> “I think that test anxiety comes a lot from not having prepared well enough if they are capable, or it comes from not being able to prepare because of maybe a lower cognitive function or they just can’t do it and that causes them anxiety and then they just blame it on the test. I just can’t write tests, I’m good at assignments. Well, maybe you can’t do tests because you have trouble learning the material. I think that’s where anxiety from kids comes from. It's almost like a lot of cop-outs.”

Cara also experienced students that reached out to ask for extensions or to delay the taking of tests, but in her experience, this often just ended up being a crutch and the students usually performed worse than if they had just taken the test when they were supposed to. These components of Cara’s experience highlight a teacher that feels frustrated with both her

colleagues and students that they are not doing what is required to prepare for the transition to higher education.

4.4.6 Participant C Conclusion

Cara feels that students should play an important role in the transition to higher education, but that they are often part of the problem and that much of the change needs to come from within. Her opinion of students seems low, and uncharacteristic of what one might assume of the beliefs of teachers. While she vocalised that teachers do have a role to play in supporting the transition to higher education, she views the role mostly as one of helping students develop the content knowledge and skills needed to advance to the next level. Cara harbours feelings of resentment towards other teachers who do not do their part when it comes to preparing students (specifically in terms of rigour and content), which has an impact on student and teacher relations.

4.5 Participant D- Danny

4.5.1 Pen Portrait of Danny

Danny is 50-60 years old and has been teaching for 27 years. In addition to teaching senior Science and Maths courses at a large high school in the district, he also has experience teaching advanced placement (AP) science courses. AP courses are run through the (American) College Board and allow students to obtain university credits for courses completed while still in high school (after successfully scoring a 4 or more on the AP exam). While Danny describes himself as both relaxed and fun, he also has high expectations of students. He claims he is known for doing things “on the fly”, but actually values setting up routines. Danny believes in providing

students with opportunities to face challenges that they have never experienced before, and tries to play into individual students' strengths, skills, and desires. He comes across as incredibly confident and self-assured when it comes to his practice and beliefs about his practice.

4.5.2 Practice Centred on Preparing Students for Higher Education

Danny was firm in his belief that his role as a senior science teacher is to prepare students for higher education and his daily practice in the classroom reflected this belief. When asked his views about his role in preparing students for higher education, Danny stated: "As far as I am concerned it is the only part of my job. Yeah, it's 100%". However, he does not apply this belief to all teachers, rather, he believes it depends on the subject level and course that they teach. As a science and maths teacher, Danny felt confident that most of the students in his classes were university-bound. As a result, he designed his practice around ensuring that his students were prepared. Even within the sciences, he depicts a hierarchy of having students that are more or less likely to be going to university based on the course that they are enrolled in. For example, he suggested that Physics 12 has a greater average of students attending higher education than Biology 12 does, and that teachers could (and perhaps should) teach their courses differently based on this understanding.

Danny explicitly teaches his courses thinking about how what he does will help students to be more successful in university. In this way, Danny tries to structure his courses like "university light", which he described as having high expectations, strong routines, and a traditional teaching model that was "pretty much if you imagine what a 1955 classroom looked

like". Though he described his role in relation to the transition to higher education, Danny also described how the work he does in class benefits all students, and not just those planning to go on to university. Even students who failed are receiving preparation, as the act of being unsuccessful shows them what they need to do differently next time they are in a similar learning situation. Danny's comments cement that he values the work that he does in preparing students, and is confident in his own ability to do so. His confidence both as a teacher and in his capacity to prepare students came through in his mannerisms during the interview. He spoke with conviction, at times even bravado, about his teaching ability.

4.5.3 Values Instructional Strategies Based on Challenge and Overcoming Adversity

Danny's instructional strategies stem from his experience dealing with students that are unsure how to deal with being unsuccessful. He is a self-proclaimed "tough" teacher, with his motivation stemming from his belief that students need to be given the opportunity to have experiences that mimic those they will see in university. As described in section 4.5.2, Danny's "tough" practice as a teacher manifests as a rigorous and traditional classroom centred on strong routines with exceptionally high expectations. Furthermore, he described conflict between his beliefs (and practice) and the current education system, one he describes as "adapts to students, not where students adapt to the system". As a result of this conflict, he feels frustrated that students don't understand how to change themselves because everyone (the system) bends over backwards for them. He described it as:

> “It's like going for a swim, right? Either you swim or you kind of drown, and these kids never get the opportunity to go into the deep end. They always have their little life jackets on”.

Danny feels an imperative to provide failure opportunities for students in response to a system that he perceives is not offering preparation. This provides the rationale for why Danny structures his courses the way he does and why he places such value on being “tough”.

4.5.4 Feelings of Conflict: The System is Broken

Danny believes that assessment practices in senior courses are also not helping to prepare students for the transition to higher education as often the numerical assessment that students receive is not reflective of their actual knowledge. Danny described our current system as one that too often caters to the needs of students and that, in his experience, mark inflation is commonplace among senior science and maths teachers. More specifically, Danny described how some teachers allow students to “earn marks as though they are points, and that the number of points they earn is not always reflective of their understanding or knowledge”. Danny feels a sense of conflict about the way students should be assessed and how they are most often assessed by his colleagues. To dissuade these feelings, his practice focuses on ensuring that students' grades reflect what they actually understand and can do.

Danny also described the district’s “success for all” culture as a detriment to those with the intention of moving on to higher education, as it promotes a reality where teachers bend over backwards to help students succeed and they are not forced to learn how to adapt in challenging

situations. He describes his colleagues feeling pressured to teach and assess in a specific way, a pressure that he ignores as he feels he has a better understanding of what is best for students. He argues students are given too much flexibility in terms of deadlines, asking for help, and the removal of large summative exams that students aren't required to adapt at all. Danny doesn't believe it is a question of inclusion, as he argues that:

> "You can include kids in your classroom, they just don't have to do well, and they are still included. But they don't have to artificially give them the impression that they are doing well".

The district culture leaves Danny with feelings of conflict, about what he thinks is right and about promoted practice, which leads to additional feelings of frustration with both the system and students. He also addressed feelings of anger and sadness for students that enter university under or unprepared.

4.5.5 Participant D Conclusion

Danny has a lot of frustration when it comes to his experience with preparing students for the transition to higher education. He believes that he is preparing students well by providing them with opportunities to fail and exposing them to concepts, materials, and assessments that are particularly challenging. He feels driven to have students leave his course and be able to be successful in higher education. His frustration lies with the rest of the system, where he believes standards have been lowered to the point where students no longer fail. As a result, he believes many students leave high school without having exposure to hard times, failure, or adversity.

Interestingly, when talking about the transition to higher education, he doesn't really describe what students need as "skills". He describes the onus is on the teacher to provide a rigorous learning opportunity that gives students an opportunity to develop some resilience in a setting where they have some support (high school). As this is what he deems important preparation for the transition, he does not feel the current climate within his school, or really the district as a whole supports students in this way.

4.6 Participant E- Erin

4.6.1 Pen Portrait of Erin

Erin is a relatively new teacher, with less than ten years of teaching experience. Though she has taught at several other schools in her career, she currently teaches at a small school in the Research District. Her position is unique in that she teaches Biology, Chemistry, and Physics 12 (as well as a host of other science and non-science related courses). Erin is 40-50 years old and describes herself as a flexible teacher that works hard to build a safe learning environment for her students. She feels that students should be excited about what they are learning. Erin describes herself as a teacher that believes in the importance of relationships and places connection over curriculum.

4.6.2 Belief That School Size has an Impact on Experience

The influence of context, namely school size, on experience was selected as the first theme for Erin as she believes her unique position in a small school has had an enormous effect on her experience in preparing students for higher education. Due to the small population of her school, senior science enrollment tends to be quite low. As a result, her class sizes are so small

that she is often required to teach split classes (where she teaches two separate courses at the same time). Sometimes the pairing is two similar courses (such as Chemistry 11 and Chemistry 12), while other times it is completely different courses (such as Chemistry 12 and Photography 11). Erin described her belief that this unique way of offering courses has allowed and encouraged her to be creative in terms of how she delivers and assesses her courses. Many of the more traditional approaches described by other participants are structurally impossible given the constraints of her school. Additionally, the school has recently re-opened after several years of being closed, and as such, does not have access to many of the resources (like textbooks) that other schools may have on-site.

Erin also described how she, like most teachers in a small school, is the only staff member teaching all of the senior science courses. She described how this results in students having the same teacher repeatedly over several semesters (or even years) and how this impacts her teaching practice as she has a stronger connection with students because she has taught them over multiple years. She referenced this as a comparison to when she has taught in larger schools, where she would teach students once and then never again. Erin shared that teaching in a small school provides less need (or sometimes capacity) to work collaboratively with other teachers as she is the only one teaching specific courses. She described that while this might have some downfalls, it also provides flexibility in terms of how courses are run. Erin described this as feeling as though she had a much greater autonomy in her class than she had when teaching in other (larger) schools within the district. When she taught in larger schools, she felt pressure to keep some consistency among teachers (especially in terms of assessment) as parents

tended to complain when there were differences that may (at least appear) to have some apparent advantages or disadvantages. She described a scenario where one teacher is giving a final exam worth 40% and another is given an open-ended project, there would be complaints of inequity from parents. When there is only one teacher, there is only one reality for parents and the notion of fairness becomes a relative non-issue. Complete autonomy is then the norm. Erin suggested small schools often have other challenges that can affect those students interested in pursuing higher education. Access to high school guidance counsellors was presented as one such example. Erin suggested that students in her school have less support when it comes to being aware of what courses they need for graduating and completing scholarship applications.

Erin strongly believes in using inquiry to help guide learning and admits that very rarely do courses look the same from year to year. Because her courses are usually run as split courses where there are students taking different courses at the same time, Erin structures the course as a flipped classroom, where students are given the materials and lessons needed to understand the general concepts via an online platform (google classroom) and then class time is used for answering questions, going deeper with the information, or conducting labs. Erin believes that this form of classroom is actually a good way for students to experience a smaller scale version of what they will see in university, as there is a large component of self-teaching and independence in the structure of her courses. She describes her belief about how her practice of providing a flipped classroom helps prepare students for university. Essentially, Erin suggests that both systems are re-evaluating the purpose of class time. Is it to present the conceptual material in a top-down fashion, or should that information be presented in advance and class time

is for inquiry, deepening understanding, and asking questions? While her specific context necessitates teaching in a more student-driven model, she doesn't want to go back to more traditional teaching methods. Erin said:

> "Like, I would be scared to go back into a system where there is um, the Senior science teachers got together and made the choices together and it had to be like that. I love that I have my flexibility, and this, and this autonomy in my lab. Like, I like that I am making the decisions for my students, and not for what another teacher decides is the way it should be and we all have to do it the same."

4.6.3 Feelings of Anxiety About Student Readiness

Erin spoke candidly about her experience as a teacher, describing her role in preparing students as one she takes very seriously, but also one that gives her quite a bit of anxiety. Erin describes this anxiety and her feelings of inadequacy:

> "It's a tough one because there are a lot of excellent teachers out there who are really really smart, way smarter than me. Like way smarter, they say these things, like bla bla bla, and I'm like, oh yeah, I know what you are talking about. They have more experience, they retained more, but yet, I have, I feel like that enthusiasm and relatability that hey, we all kind of make mistakes. We are all learning stuff together. That, that, I think it is really important in our classrooms."

As a teacher, she feels that there are smarter and more qualified teachers out there, but also recognizes that her strengths lie in her ability to get students excited and to form relationships- a

feat that she believes is more important than curriculum. In this way, she really questions the purpose of her role, and perhaps more generally the role of school is for students. The challenge as she describes it, is to give students the necessary skills but also instil the passion that makes them want to continue on to further study. When questioned specifically about the preparation for higher education, and whether or not that is something that she explicitly thinks about, she describes the anxiety of feeling responsible for students' success in higher education. Erin feels a tremendous amount of pressure to not let her students down, and this stress has an impact on her experience. She has physical manifestations (such as stomach aches and headaches) when she thinks about it, and really worries about how her actions impact her students and their well-being. This stress could be tied to her feelings of inadequacy described previously or simply the anxiety of not wanting to let her students down. Deep down it seems she worries that she is not good enough and that she will not be able to prepare students with what they need. This plants the seed of doubt, which pre-occupies her mind and causes her to feel stress.

4.6.4 Belief That Classroom Culture Strongly Impacts the Student Learning Experience

Erin believes in a culture of co-creation, where students have input into what and how they learn, and that the courses don't have to be boring and dry just because they are senior science classes. She designs her courses based on this belief, and as such, was selected as a theme for her. She describes her belief about the impact of classroom culture on her practice :

> "The traditional way of teaching, like Biology 11, that's painful. That's not, they leave that course with their heads spinning and they are like, what did I learn? Like wholly

> heck. It's just, it's just a slog, and that's not the way it needs to be anymore. You can talk about evolution and get excited about that. If they have the passion to learn everything there is to learn about salamanders, they know where to go: Google. It's all there. We don't need to do the slog anymore."

She provides options for both what students learn, and the way in which students choose to demonstrate what they have learned. She describes it as making it about learning about themselves, and that she doesn't believe that the learning has to occur on her timeline. Students should be able to demonstrate their learning at any point on their journey without consequence.

An important component of this theme revolves around Erin's orientation of the holistic approach to education. Erin fundamentally believes that students require all of their needs to be met, which she describes as "they need to be fed and watered". She also discussed the need for a "safe learning environment" characterised by a teacher that is viewed as trustworthy and a leader, but where students can also have their voice heard. This also includes engagement, a factor likely important given Erin's own schooling experience returning to science after many years off and finding the courage to continue because of the excitement and engagement that her own teachers brought to the learning experience.

Erin shared that students also have an important role in preparing for the transition to higher education, requiring independence, good study habits, an understanding of how they learn best, and the ability to engage in discourse to find the resources they need to be successful. She believes that students need to use their experience in high school to develop a real understanding

of themselves as learners: how do they learn? What form of studying works well for them? How should they be taking notes? She believes that classroom culture needs to be reflective of these needs and provide opportunities for students to try new things and take risks within a safe environment. One of her roles in this capacity is to help students in this process of self-discovery.

4.6.5 Participant E Conclusion

Erin questions the purpose of education and the role of teachers within the system. She also questions her own capacity to critically review the current system given that she believes that her views differ from many of her colleagues. She believes, at least to some degree, that her classroom practice is only acceptable because of the context of the school that she is in. She lacks the confidence to assert that her pedagogical beliefs would work anywhere. Despite this, she believes strongly in the importance of forming relationships with students and fostering a safe learning space. Within this learning space, she believes that student growth needs flexibility on the part of the teacher in order to flourish.

4.7 Participant F-Felicia

4.7.1 Pen Portrait of Felicia

Felicia is a high school Maths teacher with a strong background in career education. This background has given Felicia a unique lens to describe her experience in preparing students for the transition to higher education. At 40-50 years old, her 20-year teaching career has spanned several schools over a couple of school districts. Felicia currently teaches senior Maths at a large school in the district. She describes herself as a teacher who promotes a strong work ethic and

self-advocacy. She provides a lot of opportunities for students to receive extra help and strongly believes that all teachers should promote pathways of maths to help open doors for students.

4.7.2 Belief That Careers Education is Important for Successful Transition

As a past careers teacher, Felicia has a unique lens to describe her experience in preparing students for the transition to higher education. Much of this experience, and the values she holds in relation to the transition to higher education, are defined by her beliefs around the essential nature of career education. As a result, career education was selected as the first theme for Felicia. Felicia believes that career education is an important component of her role as a senior Maths teacher, but acknowledges that schools struggle with the role and can rarely provide opportunities for students to be exposed to different vocations. In her opinion, all students should spend a large portion of the careers-10 course out of the classroom exploring the work field to give them a better understanding of where their interests lie and what is needed to get them to that point. This would be more helpful in terms of preparing students for life after high school.

> "I believe, myself, that the school system does not do a good job of exposing kids to different professions. Um, I myself feel like that the Careers 10 course should be rarely in the classroom. I think we as educators, and, and, if I were to be able to create a program, they would be out in the work field watching and observing different professions".

Felicia suggests that this approach would be helpful in allowing students to pick more meaningful courses in high school, but also could increase retention rates in first-year university

by giving students exposure to an area of interest before they get there. Interpreting Felicia's comments, Felicia believes that schools and teachers need to play a greater role in providing students exposure to careers of interest. Teachers, therefore, have a role in helping guide students to find an interest after high school, which is equally (or more) important than skill development. She believes that students should be driving their educational decisions with an end goal, which is difficult to do if they don't have one. Felicia's evidence came from students that come back and visit from higher education, and many report changing their educational path that they had coming out of university. She felt that this is in large part due to the lack of detailed career education opportunities that students are exposed to in high school.

In a similar vein, Felicia believes that universities could do a better job of providing students opportunities that are less centred on recruitment and more centred on "shadowing" and giving students a realistic view of what particular programs would be like to experience. For example, she describes how taking five courses at a time can be very challenging, especially if students are working at the same time. Felicia believes that understanding this challenge and that there are opportunities to take part-time course loads, may help some students have more realistic expectations upon entering university. Felicia's recommendation to her grade 12 students is to begin their higher education career by starting at the local open-access university whenever possible. This allows students the opportunity to stay living at home with the support of family. It also means that students are not required to adjust to additional major life changes while simultaneously dealing with the changes to their educational reality.

4.7.3 Conflict Between Perceived District Culture and Practice

Felicia feels conflicted about her perception of District culture versus what she believes is best practice. Felicia perceived there to be (recent) changes in the values of the Research District, which has an impact on both district and school culture. Specifically, she addressed her concern that the district was moving away from student accountability, which she defined by a decreased focus on student behaviour and work habits (which she believes are components of best practice). Felicia's experience was that good habits were promoted (via inclusion as part of the comments on a summative report), but now perceives accountability to be lacking as the district requires that report cards follow a specific template that does not include assessing behaviour indicators (such as work habits). She described how if students don't complete (or submit) work, then teachers are not supposed to score a zero. Instead, they are to look at whether students have actually met those learning outcomes in other ways. In her discussions with exchange students, this does not appear to be the experience in other countries. Specifically, she described one of her German students who was culture-shocked to see the difference in assessment practices between the countries. In his school, 60% of his course mark was based on work habits and participation (showing up on time, focus in class, submission of work, ability to ask questions in class, etc) and only 40% on more traditional modes of student evidence (like summative assessments). Felicia argues:

> "We have gone 100% away from that (accountability). Really, we promote it, but there is no accountability. If the kid doesn't hand in the assignment, like technically, the teacher is supposed to look at what they have assigned and did they meet those learning outcomes?"

Felicia describes this as a system failure that reinforces that work habits don't matter. She believes that the implication of this system is students that have no sense of responsibility over their own learning.

4.7.4 Struggle to Adequately Prepare Students Because of Beliefs about the Contextual Differences Between High School and Higher Education

Felicia finds adequately preparing students for the transition to higher education challenging because of her perception of differences that exist between high school and higher education. She believes that it is the difference between the two systems that necessitates preparation in the first place. She describes the difference as:

> "When you go to university it is different than high school. It's not as, it's not, spoon-feeding is not quite right, but it's not as nurturing I would say."

In response to her belief about the differences between the two systems, Felicia takes action by being transparent with her students and tries to spend some class time talking about the differences that exist between the different levels of school. Specifically, she often addresses that university lacks the spoon-feeding approach that is often seen in high school, describing it as no longer having a "baby-sitter" for their assignments. She described her understanding that many university maths and science courses have grading structures centred on just 2 or 3 different summative assessment pieces (usually in the form of a test). Much of the work that is completed during the year is not submitted for marks and is completed solely for the purpose of deepening understanding of the concepts. However, in high school, it is sometimes challenging to complete

work that does not have a mark or grade associated with it. She tries to prepare students for the differences in calculator policies and work on their resilience when faced with challenges. Looking specifically at the latter, she tries to prepare students (especially those students that are used to scoring very high grades) that it is not uncommon to score much lower grades in university.

Felicia spoke about the nature of her maths courses and student anxiety. She described her experience, where it was a fairly common occurrence to have students crying in class, so common that she joked about purchasing a mug labelled "tears of my students". As a teacher, she tried to combat this Maths anxiety by helping students to understand how to advocate for themselves and provide a procedure for what to do when they come across a concept that they don't understand. Part of this approach meant being available for extra help outside of class hours and providing strategies for success. Her assessments were also designed to provide students with low-risk opportunities to check their understanding of the concepts provided, with multiple opportunities throughout the course to demonstrate what they have learned. In order to have a better understanding of the differences between high school and higher education, Felicia tries to find opportunities to connect with local university maths professors to talk to them about what they are seeing and where students may have gaps in their understanding.

4.7.5 Participant F Conclusion

Felicia's beliefs about the transfer to higher education stem from her own university experience and her early work as a career education teacher. Much of the challenges students face, she perceives as a result of systemic (as opposed to individual student) shortcomings. She

believes that preparing students for university is less important than preparing students for their future (whatever that may be), which needs to begin much sooner than right before they graduate. She tries to structure her classes in a way that honours this. Felicia suggests that students need early exposure to careers education related to their interests so that they can take courses and enrol in higher education programs that they are actually interested in, something she does in her senior maths courses. Additionally, she describes a current district culture that does not align with higher education or her own beliefs about best practice and that provides students with a false narrative about what their university experience will be and what is needed to prepare. The implication of this culture is students who lack agency and work ethic over their own learning.

4.8 Participant G- Geoff

4.8.1 Pen Portrait of Geoff

Geoff is a 60-70-year-old senior chemistry teacher at a small school in the district. While he was one of the oldest participants in the study, he started teaching later in life and has only been teaching for ten years. Geoff previously had multiple careers in the trades and is passionate about hands-on learning. This means lots of demonstrations, inquiry projects, labs and activities. One of his expectations for students entering his class is that they spend some time learning about themselves and he designs the course for students to have multiple opportunities to do so. Geoff describes himself as fair and believes that most of his students would describe him as a fun teacher. He brings a unique perspective as a mature, new teacher with a lot of life experience.

4.8.2 Belief That School Size Impacts Experience

Geoff spoke highly of his experience teaching in a small school, believing that much of his practice and day to day engagement with students are shaped by this context. Generally, he would be assigned to any student that enrolled in senior science within the school. Students' only other option would be to take an online course, which students would sometimes select due to scheduling conflicts. As the only senior science teacher, when students showed up for his grade 12 course, he had a really good understanding of their prior knowledge, work habits, and how prepared they were to be successful in the course. Sometimes students would sign up for Science 12 that Geoff believed lacked the prerequisite knowledge to be (easily) successful in the course. In these cases, he would often talk to the counsellor and the student to see why they wanted to take the course. Geoff seems to hold conflicting views about senior science courses. His comments on some students not having the prerequisite knowledge to take the course imply that the course is not designed for all students to succeed and that they should have a reason for taking it. Yet despite this assertion, he clearly states his belief that students don't need a reason to take science:

> "I would never tell a kid that he couldn't take Chemistry 12 just out of interest. Yeah, right? Like, cause it's really interesting, as far as I'm concerned. And even if they specifically said, you know I have no intention of going to university and doing this, I'm just interested. I think that would be awesome".

Geoff is a private man and rarely shares his diverse work history and background with his students. Despite this, it clearly impacts his beliefs about student preparation. Geoff had many different careers in his life and recognized the importance of enjoying what you do. Geoff believes that students need to follow their interests, and not be persuaded to take courses based on other factors (including pressure from family, which in his experience has been a common practice). His role within this lies in encouraging students to consider their options for life after high school and to have them realise that university is not money or time well spent if one is uncertain what path they want to take in life.

4.8.3 Student Beliefs about High School Make Preparation Harder

Geoff shared that many of his students seem to have unrealistic beliefs about what is required to be successful in high school (but also in higher education). This has an impact on his teaching, as students in class are often not committed to their own learning. Geoff shared his belief that students need self-direction, work ethic, and the capacity to balance all of the different factors in their life, which are things he tries to help students with in his classes. Geoff listed the competition his courses face with part-time jobs, and that students believe that the teachers need to be flexible around their other commitments. He gave a specific example:

> "I got an email from one of my kids, you need to let me know further in advance when the assignment is due because I have, I'm working a lot. And I responded, well, that's the amount of time I'm gonna give you and if you get it in late, it'll be late. Yeah, it's an

> inconvenience for me and I may not get to it right away because I will be busy. So no, I'm not planning on changing my schedule for your work schedule."

Situations like the example above are frustrating for Geoff, as he did not feel that making accommodations for students in these scenarios would help students learn to balance their time and commitments. Part of his strategy for preparing students is to not overly cater to their needs, so that students are given an opportunity to rise to the challenge and figure out what they need to do on their own.

Geoff also had concerns that students have become overly accustomed to the flexibility frequently offered to them in high school, and that this will follow them to university, a reality that Geoff does not believe to be true. He described:

> "I make it pretty clear to them that it would, it would be a pretty harsh reality when they get to university. Like, you didn't hand in stuff super late, and you didn't get three goes at your midterm, right?

His use of the word "harsh" emphasises the difference he expects students to understand. While he does provide some flexibility in terms of how and when students submit work, he tries to emphasise why it is important that students manage their time and get work in on time, specifically that University will not have the same level of flexibility.

Assessment is another great challenge that students face, especially as a large proportion of university science courses are based on high-stakes testing situations. For this reason, Geoff structures his senior courses to be weighted heavily on summative assessments in an attempt to

mirror the system that students will see and to give students the experience of both preparing for and writing these assessments. Despite this assertion, Geoff shared that when working with local university chemistry professors (mostly for professional development), the main thing they wished students arrived with in higher education was a better grasp of lab techniques. For this reason, Geoff's practice has a focus on hands-on lab work and classroom demonstrations.

4.8.4 Google Classroom as a Tool to Support the Transition to Higher Education

Google Classroom is an important tool in Geoff's practice preparing students for higher education. As a novice teacher, Geoff felt that his practice and the student experience was continuously improving because of his consistent effort to upgrade his digital presence from previous years. At the time of the interview, Geoff was in his third year of consistently utilising Google Classroom as part of this teaching practice. When he first started, his google classroom consisted mostly of the day's notes with the occasional video added in for effect. Over time, it improved to include digital assessments, video lessons, and interactive learning opportunities. He describes the platform as his vehicle to get learning across to the students, and that his three-year journey went from inconsistent use that addressed learning needs on a very surface level to an in-depth learning site that "really meant it". It became very structured and served as a platform for professional growth.

4.8.5 Participant G Conclusion

Geoff is a clear example of the common adage, who we are affects what we do. Geoff's diverse work history impacted his beliefs about how and what he teaches his students. He

believes that educators have a responsibility to have students think about what excites them, and the different options that exist for their future. Once students have an interest, they should be able to follow that passion, and it may not always lead to the path of higher education. Providing hands-on learning opportunities is another way to get students excited about learning, and it also aligns with the deficiencies that local science professors outline as missing from students that enter the institution directly from high school.

4.9 Participant H- Henry

4.9.1 Pen Portrait of Henry

Henry is 50-60 years old and currently teaches at a large school in the Research District. Despite his near 30 years of experience teaching science and maths, he is relatively new to teaching senior courses, as they were highly coveted by more senior staff until recently. Henry comes from a family of academics with high expectations and has a real passion for what he does. He is passionate about science and believes that all students can take something away from any science course regardless of what they want to do after high school.

4.9.2 Engaging Students is an Important Component of his Practice

Engagement was selected as the first theme for Henry to bring together his beliefs and experience about how students learn best, the need for inclusion, and the purpose of his classes. Engagement in Henry's class begins with striving to treat his students as equals and as partners in learning. He describes how he tries "not to do the sermon from the mount, but sort of engage them in the process". Henry believes that learning as a process has to involve the students. Henry's experience has also seen engagement to include the development of students into

lifelong learners. This means helping them find and develop their passion. He challenges that his role should not really be about preparing students for higher education, given passion can lead students in many different directions, and that higher education should not be seen as the only answer. Henry describes learning opportunities that come in many forms after high school, including informal learning opportunities found on the internet. His strong beliefs around the importance of learning equate into a classroom where engagement is translated to mean learning that is accessible to all students. Students take courses for a variety of reasons, many of which are not related to their aspirations of higher learning.

Henry believes that all students need to be honoured in courses, even if they are not as academically experienced students. He spoke of one particular Biology 12 student that was really struggling with the course, and after much consideration, noticed that the student had not taken a science course since science 10. They had skipped Biology 11 and were taking Biology 12 as their one science graduation requirement course. In British Columbia, Biology 11 is traditionally taken before Biology 12. Though the grade 11 course is not a prerequisite and the course content is unrelated, many skills are developed that are useful for the grade 12 course. Furthermore, the Biology 12 course is considerably more challenging. Though the course was very challenging for the student, she was engaged in the learning process, asked lots of questions, and did the best that she could. She was proud of her learning and found a way to use it in her personal life. This was proven as she arrived to class one day and described to Henry a recent experience where she was required to take a family member to the local emergency room, and as the doctor came in to explain the information to her family, she was able to fully understand (and translate) the

information. The student was not going on to university, but the learning from that course was significant and had a definite impact on her life. Henry commented,

> "I don't know what the fate of time has delivered for her or her future and what's happened, but it wouldn't have surprised me at all if she decided ……to learn more about something and continue on with her learning".

4.9.3 Beliefs About the Failings of the Current System

Given Henry's comments about the importance of nurturing student learning, regardless of what their path may be after the completion of high school, I was interested to see how he would respond when directly asked about his role in preparing students for the transition to higher education. Henry referred to the Ministry of Education in his response, and how it did not seem that professional emphasis was being placed on the academic preparation of students for the next level. His evidence for this statement came from the (relatively) recent removal of standardised grade 12 exams (known locally as "provincial exams"), and that the government did not seem to be supporting a system that had a specific standard that students were supposed to attain. Once again, Henry emphasised that his role should focus less on the preparation for the transition to higher education, and more on creating lifelong learners with a passion that they want to explore. He specifically commented:

> "I think a lot of the skills that would help a student go onto university are going to help the student go on in life. I mean, even if you don't plan on going to university, but you

have no grit, you can't finish anything you start. You give up the first time there's any sort of challenge. I have a hard time seeing any sort of career path for that, yeah?"

In this way, his remarks highlight the importance of all transitions after high school.

While Henry clearly stated his views that his role should not be about preparation for higher education, his body language and voice agitation suggested that he did not necessarily agree with the Ministry's direction and decision to remove provincial exams. As a teacher, Henry valued the provincial exam, a heavily weighted standardised test, and its capacity to prepare students for higher education. Henry's comments point to a conflict in his true beliefs about what the role of a teacher in a secondary course should be.

Henry was keen to share his perception of the differences that exist between high school and higher education. While he mentioned many of the more common structural differences that exist, he had an interesting perspective on why the students themselves treat the educational experiences so differently. Henry suspects that students place more value on the things that cost them; in other words, they place a higher value on university because it costs them money. As high school education is free in Canada, it is taken for granted. This also impacts the way many students view attendance. If school isn't valued, then families are more likely to have students miss class for vacations and other extracurricular opportunities.

Henry addressed attendance as a significant issue that is impacting students' ability to learn, but also his capacity to teach and prepare them as learners. Having toured schools in other countries, he believes this to be a Canadian (or maybe even a BC phenomenon). Every day in his

grade 12 courses there are a significant number of students that are absent from class, and it can be challenging for those students to catch up on the material missed while absent. It also creates a significant additional workload for Henry who has to communicate student absences with families and attempt to catch students up upon their return. Henry works to provide an online presence for his students. For this reason, he does worry that this (and other systemic responses to student behaviour) partially contribute to how "coddled" high school students are. Henry pointed out that in high school, grade 12 students have very similar expectations (and often even experiences) as students who are in grade 8. The bell schedule was provided as an example where there are few differences between those that enter and those that are about to leave high school. In university, the timetable can be markedly different, with longer classes, sometimes not every day, and a lot of emphasis on independent learning. Self-discipline becomes more important in university as a result, but there are also significantly more competing distractions. Weekends are no longer the only opportunities for social engagements, and often there is not as much parental involvement in telling students what they can and cannot do.

Henry described his experience of preparing students for the transition to higher education as providing students with a smorgasbord of learning opportunities to meet the needs of the students. He tries to be reasonable with students and understand that they are trying (and sometimes stumbling) to learn the fine balance of academic life and social life (or work-life). Henry really tries to have students be thinking about the possibilities that exist for their future and encourages students to view university like walking down a hallway with many doors branching off. Students should make sure all of those doors are unlocked and open to give

themselves as many options as possible moving forward. Taking courses is how those doors are unlocked.

4.9.4 Conflict Between Personal Beliefs and District Culture

Henry had many thoughts about the current culture that exists in the Research District and the impact that it may be having on student transition. Specifically, he commented on the District's focus on "success for all", and how this may be inadvertently shifting into a system where success is defined by everybody passing with great grades. Henry argued the fallacy that exists in this scenario, as:

> "Quite frankly, one learns more from adversity than simply always finding the easy path and the easy success".

In his experience, the result of this social experiment seems to be a group of students that generally lack the grit required to carry on in the face of adversity. He described his personal experience with his colleagues, family, and friends, where students start in programs at university but don't make it to the end of the first semester. When programs get hard, they drop them, often with no compass of where to go next. Students drift in and out of programs like video games: "if things aren't going how you want them, you kill yourself, respawn and start again". Students need to know that there are consequences for their actions or lack of actions. Henry believes that the system is currently acting as a great disservice to students. Students need help trying to learn how to balance their academic life and their work life. What is interesting, is how this facet of

Henry's experience almost completely opposes his earlier views of accessibility and meeting students where they are at.

4.9.5 Participant Conclusion

In Henry's experience, there are many factors that affect students' successful transition to higher education. While he argues that improving the transition to higher education should not be our central concern, he also values a pre-dated version of public education that was very much designed with the notion of sending students onto the next level. What Henry says he values, meeting students where they are at and making courses accessible to all students, aligns perfectly with the new curriculum and Ministry direction. Yet, despite the similarities, Henry does not like the "success for all" mantra and thinks it plays a large role in why students are struggling when they get to University.

CHAPTER 5: THEMATIC FINDINGS AND DISCUSSION

5.1 Introduction

The purpose of this chapter is to discuss the overall findings from this study, namely the superordinate and sub-themes that exist across all participants and a discussion of how these findings answer the objective and research questions of this study. Following the IPA process outlined by Smith et al. (2009), the initial themes for the individual participants were compared to identify common themes. From this analysis, four superordinate themes were identified with ten subthemes. Table 5.1 summarises these themes and subthemes as they arose in participant responses. Checkmarks that appear in the table in black indicate that the participant referenced the particular subtheme at some point during their interview, but it was not selected as a theme for that particular participant. Checkmarks that appear in red indicate that the subtheme was selected for that participant as an important component of their experience.

Table 5.1: Themes and Sub-themes Across Participants

Superordinate Theme	Sub-theme	Anna	Bonnie	Cara	Danny	Erin	Felicia	Geoff	Henry
The Experience of Preparing Students for Higher Education	Discord in Beliefs About What They are Preparing Students For	✓	✓	✓	✓	✓	✓	✓	✓
	Differences Between Professional Identities and Beliefs About their Role as an Educator	✓	✓		✓	✓	✓	✓	✓
	Experience of Blame			✓	✓		✓	✓	✓
Experience of Misalignment Between High School and Higher Education Practice and Pedagogy	Belief that the Differences Between High School and Higher Education Make Preparation for the Transition Difficult	✓	✓	✓	✓	✓	✓	✓	✓
	Perceptions About Assessment	✓	✓	✓	✓	✓	✓	✓	✓
	How Hard to be on Their Pupils	✓	✓	✓	✓	✓	✓	✓	✓
	Impact of Technology Use on Experience		✓			✓		✓	✓
Socio-Cultural Influences on Experiences	Nature of Experiences Connected to School Size		✓	✓	✓	✓		✓	
	Experience of Misalignment Between Policy and Practice	✓	✓	✓	✓		✓		✓
	Classroom Culture Influences Teaching Practices	✓	✓	✓		✓		✓	✓
Impact of COVID-19 on Preparing Students for Higher Education		✓	✓	✓	✓		✓	✓	✓

5.2 Superordinate Theme 1: The Experience of Preparing Students for Higher Education

As a profession, the act of teaching unites people into a social group: teachers. All participants in this study had beliefs about their role as a teacher. Despite this unity, there are different beliefs (within this study and more generally) about the specific role of teachers when it comes to preparing students for the transition to higher education. Social Identity Theory, first described by Tajfel in 1978, describes how an individuals' self-concepts are derived from membership in a particular group. As individuals within a social group, we categorise the world

into smaller components or categories. When one of the categories includes ourselves, self-concept becomes particularly relevant. Tajfel's Social Identity Theory is used here because it provides a useful framework that is based on the values humans place on their social group and it allows for explaining behaviour and communication within a group. It is especially useful here to explain the experiences of teachers as they prepare students for the transition to higher education, including experiencing conflict about what they are preparing students for, professional identity, and who is to blame for the challenges that students face as they enter higher education.

Social Identity Theory, described by Brown (2000) as one of social psychology's pre-eminent theoretical perspectives, is useful here (despite its age and challenges) because of its capacity to explain ingroup bias and to understand stereotyping and perceptions of group homogeneity. It should be noted that though Social Identity Theory is still frequently utilised in the literature, there are more recent elaborations that consider additional perspectives. An example of this would be Self-Categorization Theory from Tajfel's student John Turner and his colleague (Turner and Reynolds, 2011). This theory recognizes that people are both individuals and group members who specify how people interpret their own position in different social contexts.

5.2.1 Sub-theme 1: Discord in Beliefs About What They are Preparing Students For (Higher Education versus Lifelong Learning)

Each participant was given the opportunity to share their experience of preparing students for the transition to higher education. Several participants described their experience as a

comparison to their secondary colleagues (either in other schools or in other departments), and most of the time as a comparison to their higher education counterparts. Often this comparison allowed for reflection on what students were being prepared for; either explicitly for the entrance to higher education or more generally to become lifelong learners. Participants made judgments about what students are being prepared for, and who else within participants' social group shared in this responsibility. This was referenced through the variety of different means through which they felt they were accomplishing the preparation of students for higher education. This aligns with Tajfel's (1978) Social Identity Theory. Hogg and Williams (2000) identify that Social Identity Theory is premised on the idea that in-group members make frequent comparisons between themselves and out-group members, significantly impacting intergroup relations. This means that other teachers who do not necessarily share the same beliefs about preparing students for higher education or perhaps teach courses where they may not be interacting with students who are bound for higher education, are seen as part of the out-group and conflict can arise.

All participants referenced some concern about what "preparing students" means- even if they felt strongly about their role. Conflict between beliefs, and in some cases between teaching colleagues, arose because of this difference in understanding about the meaning of preparing students. For example, some participants share their feelings that there are things students need to learn that go beyond transitioning to university. Most participants idealised that part of preparation is to help in readiness for the transition to higher education. Common themes in their described experiences preparing students for the transition (in addition to the day to day classroom activities) were: providing more challenging (first-year level) content, bringing back

former students to share their experience, taking students to the local university for learning opportunities, bringing in guests from the university, and sharing their personal (and family) narrative of the university experience. This was referenced as an important way to support students who were moving on to higher education, which most participants believed was the majority of the students that they taught in their senior science courses.

Henry can be used as an example of the discord that exists in terms of belief about preparation. He knows that many of his students will be transitioning to higher education in the future and referenced the need to have students prepared for university and ensure that they have opportunities to develop "grit". However, he also recognized the need for developing lifelong learners:

> "There is a fairly high percentage of the kids I teach that go onto some form of higher education. Students who are going to find some level of success to learning are going to find the joy of learning and I would hope that would become a lifelong skill at some point. Personally, I think it's important to encourage them (students) to become….. lifelong learners. To become interested. To find their passion, and want to find more information about that. Whether that means going on to higher education or informal learning opportunities".

Henry highlights that learning success requires "finding the joy" in learning, which will hopefully encourage them to continue their learning outside of the class. He added later that the skills that are necessary to be successful in university are the same ones that are needed for

success in life. If we re-imagine what it means to prepare students, then all students will be better prepared for whatever transition awaits them after highschool. This highlights a considerable difference in understanding about preparation than what was suggested by several other participants, such as Danny who saw explicit preparation for higher education as a key function of his role.

Erin's comments also provide insight to the discord in beliefs that exists about what students are being prepared for, but also addresses the challenge that this conflict places on teachers. Erin shared:

> "Our curriculum isn't entirely matching up with the university stuff. We can (and have) changed our curriculum, but if their first year university stuff is reliant on previous learning, and we haven't done that previous learning, then we haven't prepared them. I feel very responsible for preparing them in all of the ways. It makes me choke up. It is such a lot of responsibility that we have to the curriculum…..all of the meat and potatoes stuff. And I also don't want them to not be prepared with good study habits, and learning about how they learn, and all of those beautiful things. Those are great……I don't ever want someone to tell me that I was so let down by her. She did not prepare me. "

Erin referenced the "meat and potatoes" as the prior learning or content building blocks that students need in order to succeed in higher education. Danny and Cara both identified the importance of preparing students with pre-requisite content knowledge also. However, Erin also acknowledged that students need to be developed as learners, which goes beyond content and

into the skills she references as “beautiful things”. While some of these thoughts aligned with Henry’s view of a more global preparation, the impact of the preparation on her was described as much more impactful. These comments also suggest that she finds managing this depth of preparation a great responsibility and stress.

Other participants also spoke of the need to prepare students as lifelong learners, advocating that this would serve students well regardless of where they ended up after highschool. This includes explicitly teaching study skills, forming a learning community and/or learning buddy, and attempting to foster students’ sense of resiliency. For many participants, this came in the form of providing students with opportunities to struggle and being available to help in guiding them through the process. This was referenced several times by participants as a necessity because many students link their “academic success” to their own personal self-worth, and struggle when they face academic challenges as a result.

Self-worth, often referred to as self-esteem, can be considered the evaluation of one’s value; a construct that begins at birth and changes over time (Miney et al., 2018). Adolescence is a particularly important life phase in terms of self-worth, given that it is a time of numerous critical physiological and experiential changes as one moves from childhood to adulthood. The impact of school success on student self-worth has been frequently addressed in the literature (d'Entremont, 2018; Klapp, 2018; Miney et al., 2018). In a recent paper, d'Entremont (2018) suggests that many students strongly base their sense of personal worth on their academic performance and that deviations to their academic success can impact their mental wellbeing. This research came from a desire to support the increased prevalence of mental health concerns

presented to counsellors at Canadian universities and the concerns experienced by students who received lower than expected grades (this grade "sticker shock" appears to be commonplace in first-year programs, especially in engineering). Park, Crocker, and Kiefer (2007) acknowledge this same detrimental effect of failure, arguing that students become emotionally devastated when they come across academic failure. This in turn promotes identifying with failure and incorporating it into who they are ("I am a failure") rather than some small component of an (often singular) event in time.

This connection between academic success and a sense of self-worth forces one to think about the impact of assessment on our students' sense of well-being. Park, Crocker, & Kiefer (2007) provide a specific example of a sixteen-year-old boy, so ashamed of his recent test performance he set fire to his house (killing his siblings and stepmother) to avoid facing the disappointment and anger of his parents. While this is an extreme example, several participants referred to this same sense of increasing inability to deal with failure or lower levels of success in their students. Felicia addressed this as commonplace with her Maths students who were constantly tearful in class (previously referenced in Chapter 4 as her "mug of student tears"). Danny also shared his frustration with students that struggle to overcome challenges in his courses and how this impacts students' view of themselves as learners. Klapp (2018) agrees that summative assessments (including high stakes testing and grading) have an impact on students' motivation for learning and achievement and that students' sense of self-worth and emotional wellbeing can be negatively impacted. This becomes especially apparent when looking at the

first year of university, where many students often enter with optimistic (at times even unrealistic) expectations and predictions of their performance (Weisskirch, 2018).

Despite this alarming evidence of the negative impact of high stress summative assessment, many participants spoke of experiencing a real need to provide students with this practice as they felt it was an important part of the preparation for higher education. This need for adequately preparing students for higher education while still helping to develop the skills of a lifelong learner left many participants struggling internally with their role. Is explicit preparation for higher education even part of their role? While most participants clearly felt this was the case for them personally, they struggled to apply the role to their non-math and science colleagues, and often challenged that they had a greater responsibility than some of their colleagues who were further removed from students who would be attending higher education (meaning teachers of younger students or programs that did not directly lead to higher education). Some questioned whether the high-stress testing approach was a meaningful (or necessary) route for student success- be it in higher education or simply in the workforce. Bonnie was particularly passionate about assessment, and declared formative assessment as one of the greatest predictors of student achievement:

> "I believe strongly in formative assessment. They have to have a chance to practise, figure out their mistakes, correct those mistakes, and move on from there. Otherwise they are not actually progressing."

Despite her clear views on the importance of formative assessment and learning opportunities, she also had strong beliefs about the current curriculum and district culture as being not structured or challenging enough to support learners transitioning to higher education.For this reason she felt there needed to be more district initiatives focussed on supporting students' transition to higher education.

Many participants spoke of specific initiatives at the classroom, school and department level that were created to assist students as they transitioned to university, highlighting that it feels like the preparation for higher education falls entirely on the shoulders of teaching staff, but that this should not be the case. Some of these initiatives (such as universities coming to the school and information nights) were described by participants as "recruiting" in nature and more beneficial to the institution than to the student. Others described advanced placement (AP) courses (facilitated by the American College Board), school contest clubs (where students can engage in the writing of academic contests run through different institutions of higher education), and one-on-one work with the school counsellor determining which courses are program requirements. Academic advising allows school counsellors to help alleviate student concerns about the transition, help support career and life goal planning, and to help monitor student progress (Sithole et al., 2017), but was referenced by participants as not universally well used by all participants. The current BC curriculum, designed to help support students with this transition as it was designed for 21st century learners, was also not received that way by participants. A key component of the curriculum is allowing students to chart their personalised ongoing success by making curriculum and assessment more individualised and interconnected (Fu, Hopper, &

Sanford, 2018). While examples could be provided from each participant about things that happen in their school to support transition, all participants felt that this is an area where there needs to be more growth for the district. The current opportunities are also not offered equitably, in that students have very different opportunities depending upon where they go to school.

5.2.2 Sub-theme 2: Differences Between Professional Identities and Beliefs About their Role as an Educator

While identity is an individual construct that defines who we are, Tajfel's Social Identity Theory (1978) postulates that individuals define their own identities with regard to social groups and that such identifications work to protect and bolster self-identity. Identity is shaped by (and potentially shapes) our beliefs, values, and behaviours (Chung-Parsons & Bailey, 2019). Teachers are in a unique position, having the ability to influence how and what students learn as well as make a significant impact on student engagement and achievement; essentially impacting the identity of their students. Furthermore, teachers also have their own professional identities, social identities within their professional context, that shape how and what they do (Chung-Parsons & Bailey, 2019). Within the context of describing their lived experience, each participant was explicitly asked to describe their beliefs around the specifics of their role as a teacher. Most participants described preparation for the transition to higher education as a part of their role, even if they did not believe the same was true for all teachers (either in other grades or other subject areas). Most believed this was because the students in their class had either made an explicit choice to continue on or were simply more likely to attend university than in other classes (such as those that may be required for students to graduate).

All participants felt that supporting students' transition to higher education was part of their role, but most identified their role was to provide challenge and rigour. If they didn't do this, despite whatever views they may hold about the purpose of education, then they weren't doing a good job supporting the transition to higher education. Their identity as a good teacher was tied to providing a challenging learning opportunity for their students. As evidence for this struggle, when participants were further questioned about what it means to prepare students for the transition to higher education, the most common response was that it meant **exposing students to** the types of things they would see in university (as opposed to **preparing them for** the things they would see in university). While only a few participants actually named rigour specifically, almost all addressed it conceptually in some capacity such as providing challenges or opportunities to face adversity. This tended to result in a system with an emphasis on high stakes testing and opportunities to be presented with more challenging materials. Anna's description of her Maths course highlights this perception that good preparation requires challenge that mimics what they will see in university. This was initially addressed in Chapter 4, but it is worthwhile bringing it up again here. She stated:

> "Pre-calc 12 is a university preparatory course. It is not for fun. It is not a high school course really. It is, but it isn't. Kids take it for a special reason….If you go to university it is not all fun and games, fairy circles, and lollipops. It is high stakes,..... When you talk about UBC and schools that are hard to get into, these are life changing things….I think prep for that is very important….We want them to have some experience with university

and high stakes assessments. You get one shot at this honey, and you have to be prepared."

Despite referencing earlier in her interview that high school students are not currently in university and her main goal is to instil confidence and a sense of "I-can-ness" in students, the quote from Anna above also highlights her view that providing a difficult course is an essential component of preparing students for university. For her, this means providing her students with a challenging course that is "not for fun" and "high stakes".

There also seems to be a similar hierarchy within science, where teachers believe that chemistry and physics students were more likely to go on to university than their biology counterparts- so the courses should be tougher. A similar hierarchy appears to exist in Maths between Foundations of Math 12 and Pre-Calculus Math 12 students. Participants clearly identified as belonging to a particular social group (Science and Maths Teachers) based on the courses they taught, with only one participant teaching across all of the different content areas. Even for that one participant, a distinction was made between the different courses in terms of a hierarchy of likeness to succeed in higher education. While little research appears to exist to support or refute these claims, Sadler and Tai (2001) cite evidence that Physics 12 is the science course taken by the top 25 % of American students and that those students that take more fulsome academic programming in high school (including calculus and two or more years of physics) are more likely to do better in their first year of university. Furthermore, the authors describe Calculus 12 as the most rigorous Maths course that can be taken at the high school level, and that it tends to be the same level of difficulty as many university Physics courses. For

this reason they suggest that students in high school Math and Physics courses are those that tend to become future science teachers, doctors, scientists, and engineers.

Beliefs about what is needed for students to be successful in the transfer to higher education are also relevant here, as those beliefs tend to impact participants' perception of their role. For example, if they thought management of social media was important, they thought part of their role was to help students develop strong skills in this area. This can be seen by looking at Bonnie, who strongly believed that her role involved helping students understand the negative impact of social media. This included giving them information about switch tasking and advice about technology use. This became an essential component of what she felt preparing students actually meant. It seems that participants tended to project what they feel is important into their experience of preparing kids

Bonnie and Danny both had interesting insights about their experience preparing students for higher education. While they both spoke of this role with great clarity, they also did not (in most cases) view their role as being a necessity. Both described a similar phenomenon where students hit a point in their educational careers where they are challenged and forced to either change and rise to the occasion or resist change and risk failure. Both felt that whether this exposure to challenge comes in high school or during university, it does not impact whether or not students will choose (or maybe be able) to rise to the challenge. It similarly allows students the opportunity to make this change earlier, which in turn might make their years in university less challenging.

5.2.3 Sub-theme 3: Who is to Blame for Students Not Being Prepared?

In accordance with a great deal of literature (Bengmark, Thunberg, & Winberg, 2017; Brinckerhoff, 1996; Burke, 2019; Leese, 2010), all participants in this study acknowledged that the transition from high school to university is a struggle for many students. What differed across their responses were participants' beliefs about who is most responsible for this struggle, especially in terms of the role played by students, teaching staff, and "the system" within the preparation for this transition. This notion of blame can also be tied to Tajfel's (1978) Social Identity Theory, which describes the conflict that can exist when people socially place themselves as part of an "in-group" and make judgements against those not part of their group (the "outgroup"). In this case, the participants are all Maths and Science teachers who claim to be more likely to teach students who will be attending higher education. The outgroup would consist of teachers of other courses (outside of Maths and Science), teachers of students in grade 8-10, and potentially any teachers that do not view preparing students for higher education as a least a part of their role. Because social identity effects are based on the protection of self-concepts, threat to the self-concept can produce conflict either between groups or result in placing blame. In this study, blame or fault was mostly directed towards either students, teaching staff, or the system.

Some participants blamed students for the struggles that they face transitioning to higher education, believing that students themselves need to do a better job of taking ownership of their learning and preparing for the transition to higher education. Cara was a strong proponent of this belief that students are at fault, returning several times throughout the interview to address the

responsibility that students should have in preparing for their own transition success. Cara shared:

> "They (students) need to learn by themselves…… They need to be organised….. They need to know how to study….They expect to be spoon-fed…They need to take ownership of trying to develop the skills that they are going to need"

All of these comments seem to point to Cara's understanding of the skills and behaviour that are required for students to be successful in higher education, and that the onus is far too often placed externally. Furthermore, her consistent and repetitive use of the term "they" when referring to students highlights her understanding of students not belonging to her Social Identity in-group (Tajfel, 1978). Her comment on students expecting to be "spoon-fed" is a perfect example of this, and was shared by several other participants. Cara believed that students had expectations of her and her role, but were not prepared to adequately contribute to their own learning. This aligns with the work of Brinckerhoff (1996), whose research argued that the main ingredient of student success in the transition to higher education lies within the student and their capacity to develop the relevant study skills, learning strategies, and the reflective abilities required for success. While this study is 25 years old and focussed on students with a learning disability, similar findings can be found in Murtagh (2010) who also identify the importance of prioritising the role of the student in the transition. More recent studies (Ganqa & Masha, 2020; Holliman, Hulme, & Wilson-Smith, 2019; Noyens et al., 2019) suggest that students' roles in the transition to higher education are incredibly complex and are impacted by a variety of factors including socioeconomic status, available social-emotional support, and motivation (to name a

few). Other participants referenced similar feelings of frustration to Cara, that students struggle because of a lack of effort or ability on their part. While the beliefs about students' abilities, values, and work ethic may or may not be true, framing the problem as one centred on student shortcomings does not challenge the social-identity of the group.

While most participants did not specifically place blame on their colleagues for students struggling in higher education, all but three participants (Anna, Bonnie, and Erin) acknowledged that a teacher's role, or at least a component of their role, is to prepare students for higher education. This means that participants believed that if students are struggling, secondary teachers have a responsibility to help support them. Some participants challenged that preparing students for higher education was not a constant consideration across all staff members, and despite their beliefs that it was important for student transition, they did not believe that all teachers shared this belief. This means that some teachers were part of the "in group" responsible for preparing students for the transition, while some teachers were part of the "outgroup" that did not appear to hold this responsibility as important. Cara and Danny are perfect examples of this scenario, both stating they believed it was part of their role to prepare students for the transition to higher education, but did not believe that all teachers shared this viewpoint. Cara believed that some teachers felt that when it came to preparing students for the transition to higher education, "it was somebody else's problem". Danny believed that the teaching role is more or less defined by the specific course that one teaches and the likelihood that students in that course would be going to university. If one teaches a course where most students attend higher education, then he believes it is imperative to prepare them for that transition. If you teach a

course where the demographic may be different, then maybe the requirement does not apply to you. While Cara's view was critical of her colleagues in a way that suggests she didn't feel like they were doing enough, Danny's view suggested that it simply wasn't a necessity for all teachers to share in this work.

Finally, the most common experience of blame addressed by participants was the role that the system plays in preparing students for higher education. In these cases, participants referred to "the system" as either the structures and values in place at the district level (often referred to ominously as "the district") or the curriculum as defined by the Ministry of Education. Several participants referenced the district's "success for all" tagline, the inclusion policy, or the new curriculum in discussing evidence of how the system is failing students. Both Bonnie and Danny believe that the curriculum and the district's inclusion focus produce a set of low standards for students. Bonnie describes:

> "We are not allowed to take off marks for being late"

She views this as problematic because she feels it provides students with an unrealistic view of what will be acceptable when they reach higher education. If they can submit work late with no consequence in high school, they may believe that this is true for university also.

Danny shared similar views to Bonnie about setting low standards for students in high school. He argued:

> "Our school district policy is that we have gotten rid of exam week because we don't have (provincial) exams anymore, and now that last week is not used as well as it used to

> be. The practice of taking high stakes exams was important. If you take your first high stakes exam in first-year university and it is worth 45% of your semester one mark, naturally it's not going to go as well as it could!"

Like Bonnie, Danny feared that students are given unrealistic expectations about what will happen in university by not allowing them to have a similar experience. Furthermore, he feels that teachers are missing out on an important preparation opportunity where students could learn how to review and prepare for a "high stakes" test.

Many of the complaints that participants had about the "system" point towards a belief that there are not enough expectations being placed upon students. When teachers feel that they have a responsibility to prepare students by providing them with challenges, and are faced with a system that they see does not promote (or really support) this challenge, several layers of conflict emerge. Teachers feel conflicted about what they are being asked to do and what they are supported to do, but also between what they believe is right, and what role one is really supposed to have. Some of these responses made me question whether all teachers have a fulsome understanding of what exactly the new curriculum entails. For example, when looking at Danny's remarks about high stakes testing, the assumption is that the best way to prepare for university is to mimic what they will see (by practising high stake testing), but we know that there are many skills that students need in order to be successful. A recent study from Tabuenca, Greller, and Verpoorten (2021) suggest that some of these skills include taking ownership of their own learning and self-regulation abilities, both competencies currently emphasised within the new curriculum (Ministry of Education, 2020). The authors further suggest, like several of the

participants, that a key consideration in first-year university studies is time management, a skill that is not assisted or assessed by frequent high stakes testing, though one may argue that if students are peppered with enough assignments and requirements for study that they will be forced to develop these skills or fail while trying.

5.3 Superordinate theme 2: Socio-cultural Influences on Experiences

Socio-cultural factors are the large-scale forces within cultures and societies that affect thoughts, feelings and behaviours (Ngubane, 2013). These factors are important to determine context, which plays an important role in the experience of teachers as they prepare students for the transition to higher education. Socio-cultural factors are often tied to place. Butler and Sinclair (2020) provide a conceptual framework outlining a Spatial Theory of Education, or more specifically why place matters and how it defines us. The authors argue that place is an "inescapable aspect" of our daily lives, and as such is intimately linked to our experiences. Place is relevant here as it provides the context that shapes teacher experience as they support grade 12 students transitioning to higher education. In this study, school size, the misalignment between policy and practice, and the experience of being in the classroom as defined by classroom culture are explored as socio-cultural influences on participant experience.

5.3.1 Sub-theme 1: Nature of Experiences Connected to School Size

School size was referenced as an important influence on experience by five of the eight participants. Within the Research District, there are secondary schools of varying sizes (the largest having about 1700 students, the smallest about 300). Most participants had experience

teaching at several schools throughout their careers, including schools of differing sizes. For this reason, participants were often able to make comparisons in terms of the nature of their own experiences as they relate to school size.

The relationship between teachers, be it collaborative, autonomous, and/or competitive, was identified as one important component of participant experience related to school size. Larger schools in the district have more students. This translates to both more courses and more teachers, which makes it more likely for there to be multiple teachers teaching the same course. Several participants addressed experiencing inconsistency in beliefs about how students should be prepared for the transition to higher education when multiple teachers teach the same course within the same school. This includes the challenges that arise when this consistency does not exist and the impact on autonomy when it does. Cara spoke on numerous occasions about her experience of frustration with her colleagues, specifically how her experience is impacted by the different ways teachers choose to prepare students and how sometimes this comes across as providing different levels of difficulty. As noted earlier, she described:

> "I know from class to class, it's hard because one biology teacher might be, you know, giving everyone high A's for not really doing a lot. Then another Biology teacher might be more rigorous. Having a more straight across the board approach for all teachers would go a long way to helping kids know that they have to do some work, it's not just an easy A".

Cara feels frustrated with her colleagues that she perceives are providing students with a less rigorous learning experience, which she refers to as "giving easy A's". This experience is in the context of a larger school, where there are multiple teachers teaching Biology 12. In this case, she wishes there was some sort of standardisation between the classes in terms of how teachers choose to prepare their students, which currently lies within the grey area of teacher autonomy. In a smaller school, there is often only one teacher per senior academic elective, which makes this experience of consistency (or inconsistency) irrelevant.

To further complicate matters, in the province of British Columbia, where there are no standardised graduation or entrance exams, major universities generally base student acceptance on their marks coming out of high school. At larger universities, this is a competitive process, and the marks students receive from their high school teachers determine whether or not they will be able to attend their university (and/or program) of interest. Cara's comment provides some insight into the feelings of frustration and competition that exist amongst colleagues within her context, a phenomenon that has also been described by Keiler (2018), as a result of teachers dealing with the transformation to a student-centred curriculum. Specifically, Keiler highlights that teachers struggle with concerns about time to complete the curriculum, resistance to change from traditional methods, lack of flexibility in the classroom, and a tendency to teach as they were taught. It also speaks to her understanding that "doing work" is a central part of student success; that one cannot be a compassionate educator without also being "easy". Vizek Vidović and Domović (2019) highlight the importance of teachers' beliefs, which have an impact on both identity formation and behaviour within the classroom. These beliefs shape both identity and

behaviour. Cara doesn't think she can be a good teacher without rigour, and as such provides a rigorous learning environment for her students. Furthermore, colleagues that she perceives as less rigorous she also perceives as not adequately preparing their students for the transition to higher education. Cara's frustration and feelings of competition with her colleague makes collaboration and collegiality in her department difficult.

Erin also spoke about large schools and consistency in teacher practice and assessment, though described this consistency as an action to make parents feel equity within the system rather than an action that was actually designed to support students. Erin challenged:

> "I respect the needs of a big school, for consistency to assess the same way, but are you meeting the needs of the majority of your class?

By referencing "meeting the needs" of her students, she is operating from a student centred perspective that she feels is often not met through consistency for the sake of consistency. Furthermore, she feels that teaching in a small school has provided her autonomy that she did not experience in her other positions in larger schools. This autonomy helps her prepare students for the transition to higher education as it allows her to tailor what she offers based on student needs, which is actually a central component of the current curriculum. Erin shared:

> "I would be scared to go back into a system where the senior science teachers all get together and made choices and it had to be like that. I love that I have flexibility in a small school and this autonomy in my lab. I am making the decisions for my students, and not for what another teacher has decided is the way it should be ".

Her statement once again denotes a student-centred approach that allows her to make decisions based on the students and their learning needs. She denotes fear ("I would be scared") about having to revert to a system like those she had previously experienced where all teachers worked on the same (or similar schedule) and provided consistent assessment. She also addressed how in a large school it was difficult to teach and assess in a very different way from other teachers teaching the same course as there would be parent complaints, especially in terms of grading and the potential impact on competing for spots in university programs.

While many participants described larger school sizes as more optimal, this was clearly not the case for all participants or for the literature. Lenear and Slate (2019) discuss that although many teachers perceive that larger-sized schools are beneficial over smaller-sized schools because of the availability of resources, students at larger school's report being less satisfied with their school experience which can negatively impact school culture. While no participants from larger schools outwardly complained about factors related to their school size (beyond autonomy), several participants highlighted the positive aspects of their experience benefiting from small school size. Both Bonnie and Geoff spoke of the consistency that exists in smaller schools where teachers are more likely to teach the same students across multiple years:

> "All kids taking physics 11 at my school will see me as their teacher, and then they will see me again for physics 12" (Bonnie)

> "I see everybody coming into the school unless they transferred in, so I'd say I have a pretty good feeling about where they are at coming in" (Geoff)

Bonnie and Geoff acknowledged that their expertise with helping prepare students for higher education benefitted from seeing students over multiple years as it allowed them to form connections and relationships more readily with students. It also allowed them to learn more about students' post secondary plans, their interests, and where they needed the most amount of growth. The past decade has seen an increase in research on secondary school studies inspired by attachment theory (Chong, Huan, Quek, Yeo, & Ang, 2010; Engels et al., 2016; Gehlbach et al., 2012), but a recent study by Roorda, Jorgensen, and Koomen (2019) suggests that the relationship between student and teacher differs across teachers and content areas. Presumably, this difference would also exist across different schools.

More generally, school size has been looked at frequently in the literature with advantages and disadvantages existing for both small and large schools- though the impact on preparing students for transition has not been addressed. Most commonly, large schools are said to offer a specialised curriculum more easily, which allows schools to better differentiate what their students learn and offer a more personalised learning experience (Lee & Smith, 1997). This aligns with the practice of larger schools in the Research District, which are able to offer all senior science courses (Biology 12, Chemistry 12, Physics 12), different streams of Maths, calculus, and even advanced placement courses. These courses are foundational in nature, meaning they contain the content and skills that will be needed for more advanced courses. They are often prerequisites for first-year courses, so are beneficial in terms of preparing students for higher education. Looking at Butler and Sinclair's (2020) theory of place, larger schools provide a "geography of opportunity", which means that students in these schools are provided with

more opportunities to prepare for the transition to higher education based on where they live (geography). Given that where students live is often associated with socio-economic status (due to house prices and frequency of rentals), there is a level of privilege afforded to students in particular areas because of the neighbourhoods they come from. School size also dictates components of experience (such as programs that can be offered), further fueling the system of inequity. In this way, Butler and Sinclair's theory of place acknowledges the connection between place and social justice. Knowing that this inequity exists in the district should allow us the opportunity to engage with solutions that provide students (and teachers) with more equitable preparation experiences.

Inequity was addressed in this study as an influencing factor on preparing students for higher education, specifically by participants teaching in small schools. In the Research District, small schools also represent inner-city schools with higher levels of poverty and more vulnerable students, though this is of course not the case for all small schools in other districts. Bonnie provided some insight into the experience of being a teacher in one of these schools, sharing:

> "I teach in a demographic where some of our students work because they are needed income. They provide sibling care. The idea that kids can go home and spend three hours a night and learn everything on a flipped classroom is not the reality in the low-income area that I serve."

This quote characterises Bonnie's experience, but it doesn't fully convey the tone she presented in the interview. Though she spoke somewhat positively of the general use of tools like Google

Classroom in many classrooms, it was incredibly important for her to share her lived reality that in her context there are factors outside of her beliefs and control that would make systems that were reliant on these tools destined to fail. She spoke with urgency and passion about how students in her school were incredibly vulnerable, and that their needs were often very different from other more affluent schools within the district. The challenge she addressed was the assumption that all students have the ability to spend large amounts of time outside of class working on their studies. Santillana et al. (2020) describe this phenomenon as "the Homework Gap", and acknowledge that in addition to the challenges Cara outlined, a digital divide exists for those families that lack the technological resources to be able to participate in homework. This could also be considered using Bourdieu's(1990) theory of capital. Using the Bourdieusian lens many families lack the digital capital, described by Ragnedda (2018) as the accumulation of digital competencies, required to successfully undertake home learning. Additional consideration from Lawson (2019) adds that there is little research behind the effectiveness of flipped classrooms that do not relate to active learning strategies that could easily be provided within the context of the regular classroom during instructional hours.

5.3.2 Sub-theme 2: Misalignment Between Policy and Practice

Almost all participants viewed there to be a misalignment between current policy in the research district and their practice (or beliefs about their practice) in preparing students for higher education. Current policy was described by many as contributing to a "district culture" that was not conducive to preparing students for higher learning. While definitions for culture in the literature are vast, Detert, Louis, & Schroeder, 2001 posit that most hold the view that culture

consists of the values, beliefs, and assumptions that members within an organisation share about behaviour. Culture was used in many different contexts across the different interviews, but "district culture" was generally referred to as the guiding beliefs of the institution, specifically around inclusion and assessment (which are actually outlined in district policy and procedures). Culture is also an essential component of understanding place, as place shapes our identities, our relationships with others, and our worldviews. Furthermore, Butler and Sinclair (2020) acknowledge the political component of place, which can be seen more deeply by exploring the provincial and district context below.

Looking broadly at policy, several participants commented on the current curriculum developed by the Ministry of Education as an indicator of the values currently held at the level of government. In 2010, British Columbia began implementing an innovative re-designed curriculum that was not only based on content but also competency-based. The Education Plan that followed (2011) was created on the basis of far more than just the removal of standardised exams; it also identified the need for personalization of learning, higher-order thinking skills, and more involvement of family and community in students' education as central goals behind the creation of the new curriculum. The intention of this curriculum was not evident in participants' responses, many of whom preferred previous iterations. Of note, several participants spoke about the value of provincial exams, especially in terms of teaching and learning and preparing students for the transition to higher education.

> "I wish we still had provincial exams. I think they helped kids get ready for University. I thought it was a good levelling effect. With provincial exams, you couldn't be an easier teacher. Some kids didn't do better because their teacher was easier." (Anna)

These comments value a standardised approach to preparing students and emphasise the role of teachers in the preparation process. The current curriculum is much more student-centred and less standardised than previous versions of curriculum. Despite this, not all participants felt that the curriculum is created in a way that supports the transition to higher education. Henry questioned whether preparing students for university was even an important value to the Ministry of Education. He argued that:

> "It certainly hasn't been emphasised to me professionally that my goal is to prepare kids academically. When I see the fact that the Ministry of Education pulled out all grade 12 academic exams, it seems they are not really interested in having some sort of standard that these students meet."

Henry believes that if the government valued preparing kids academically for the future, there would be a standard that all students had to meet (such as a provincial exam). This is where the experience of misalignment and feeling of conflict arises. The policy set out by the province indicates to Henry that preparing students for higher education is not important, but this is something that Henry strives to do as part of this role.

At the heart of BC's redesigned curriculum are literacy and numeracy foundations, essential learning, and core competencies. It was followed by the implementation of a new

curriculum in 2016 (for grades 8-12) that sought educational reform in terms of both assessment and instruction leading to a much more learner-centred experience; essentially a complete shift in pedagogy from previous curricula. As previously referenced, one of the challenges associated with educational reform in the province has always been the strained relationship between the teacher's union, the BCTF (British Columbia's Teacher Federation), and the Ministry of Education (Santos, 2012). Add to this the constant turnover of staff in the Ministry of Education, and it is unsurprising that the decry of ministry curriculum and interpretation and output of teaching staff are not always consistent.

Alanazi (2016) describes the ideal curriculum and recent educational reform in a way that is markedly consistent with the intention of the current BC curriculum. He describes how previous curricula were centred on teachers using textbooks to guide students through classwork in a way that would produce "good students". Little concentration was paid to the individual needs of students and exploring where their talents and interests may lie. The new, significantly more robust curriculum is much more learner-centred. It requires that educators know both what students are able to know and what they are able to do. Its central purpose is to give students the opportunity to learn about themselves and their strengths as a learner. Alanazi further describes this shift as one away from the more dated performance focus towards a more responsive and motivated teaching and learning model. Despite the assertions of Alanazi that the new curriculum is superior, participant Anna disagreed, describing the current curriculum as watered down and lacking in the required content to have students prepared for higher levels of learning. She described:

> "Our curriculum now is so much less than it used to be. We did so much more than they do now. We don't do enough math and they still think it's hard. I don't think it's hard enough."

Anna's words also describe a misalignment between policy and practice. In her experience preparing students for higher education, standards seem to be lowered from when she was a student. She believes that there needs to be a greater focus on content, something she feels strongly about in her own practice. Current curriculum provides a model that conflicts without how she believes in preparing students resulting in a cognitive dissonance that leaves Anna frustrated.

Several participants also specifically referenced the "success for all" vision statement of the Research District. Overwhelmingly, participants spoke about the need for "rigour" in their courses, and how the current district inclusion policy creates a culture of low standards for students. The current curriculum, despite its design to foster all of the skills that teachers described as desirable, was described as "watered-down" and involving "spoon-feeding" of students by the sample of largely experienced Maths and Science Teachers. The intention of the policy and the practice of what happens in reality, do not actually align. Ewing, Monsen, and Kielblock (2018) describe how teachers sometimes struggle with inclusion because they feel it is detrimental to the rest of the class or because they feel there is a lack of support available to students who have additional learning needs. Henry described the implementation of the District's policies as one where failure is no longer an option, which he felt was a detriment to student success. He described:

> "I worry sometimes in the public education system that it seems to focus so much on sort of the idea of success for all, and where that gets morphed into the idea of everybody passes with a great mark as being a mode of success, because quite frankly, one learns more from adversity than simply always finding the easy path and the easy success".

Danny shares a similar view with Henry and believes that exposure to adversity and challenge is what fosters learning and growing. However, this does not align with his interpretation of the district's inclusion policy (or success for all tagline). He suggests that the district's stance on "success for all" translates to diminished opportunities for students to be challenged:

> "Well, the whole philosophy of our district, the whole success for all, is the worst thing you can have for students moving forward into university. Um, because, again, I'm big on meeting failure or meeting challenges, or changing, having students adapt to new situations. I think we have spent a lot of time adapting ourselves and the school to individual students. Students don't have to adapt. They don't have to change themselves because everyone will bend over backwards to change for them."

Danny's words perfectly highlight the misalignment between his beliefs and district policy. His view of preparation for higher education is centred around providing opportunities for students to struggle and overcome, but feels that district policy is designed to reduce (or perhaps eliminate) struggle. He argues that in an attempt to be inclusive, the District is creating a system where students are required to succeed. The challenge is that Danny values students having opportunities to struggle, and it makes it challenging to provide these opportunities in a system

where everyone must succeed. Danny believes that part of preparing students for higher education is helping to build their resilience, which can be done at the same time as increasing their skills and content knowledge in the subject matter. One of Danny's strategies to accomplish this is to have his classroom model some of the key components of higher education courses. Several participants referenced this same need to prepare students for higher education by "mimicking" the higher education system within their classroom, regardless of their pedagogical beliefs about the functioning of that system.

5.3.3 Sub-theme 3: Classroom Culture Influences Teaching Practice

MacNeil, Prater, and Busch (2009) describe school culture as consisting of the values and norms of a school, especially surrounding the notion of student achievement and are typically stronger in schools with highly motivated teachers and strong senior leadership (administrators). Similarly, Ohlson, Swanson, Adams-Manning, and Byrd, (2016) believe school culture plays an important role in student achievement, with schools that foster collaboration, empowerment, and engagement having much higher achieving students than schools with toxic cultures.

Many participants discussed their unique classroom culture as an important influence on their experience with helping prepare grade 12 students for the transition to higher education. Additionally, several mentioned how different courses can have very different cultures associated with them, often based on the students that take the courses and their individual purpose for taking them. Participants commented on the varying nature of different senior science courses, describing a hierarchy where chemistry is flanked by Biology (on the lowest side) and Physics

(on the higher side), and the calibre of students expected from these courses as result. Carrie described:

> "Biology is different from Chemistry, Physics, and even Math because nobody, well I shouldn't say nobody, very few people take Physics 12 because they like it, but some kids take Biology 12 just because they are interested".

It is perhaps for this reason that many participants spoke of Biology 12 courses as having a much more diverse population of students, while Chemistry and Physics courses tended to be described as consisting of more traditionally "academic" students. Most participants described the latter courses as more likely to have students continuing on to higher education, while Biology 12 may have students that are just looking for the graduation credit (as Biology 11 is not a prerequisite for taking Biology 12). A similar pattern existed amongst the participants that teach Maths, where Foundations of Math 12 was described as consisting of a more diverse population than Pre-calculus 12, where more students were likely to be university-bound. It seems as though participants view the courses from a hierarchical perspective in terms of why students enrol in the course, though most participants acknowledged that there are some students who take senior science courses simply out of interest or for fun. This notion of hierarchy among the sciences, that Physics sciences are the top of an imaginary pyramid over their biological and social counterparts, has existed for hundreds of years (Fanelli, 2010). There are several concerns emanating in the literature associated with pre-determining the potential success of students before providing them with the opportunity to actually demonstrate success. Muller (2001) describes the negative impact of teachers who do not believe in the hopes and dreams of their

students and as a result, do not provide them with the precursory skills required to be successful at the next level. In this case, students are not given the opportunity to develop and foster the skills that would allow them to be successful in the future.

When discussing their unique experience emanating from their subject culture, most participants named one or more of resiliency, rigour, and relationships as central tenants of their class values. This corresponds with the work of Bowne (2018), who highlights relationships, relevancy, and rigour as key components of teaching philosophy. In his work, Bowne suggests that connecting with others is one of the most important things that an educator can do to create a supportive learning environment, a sentiment shared and described by participant Erin:

> " And yeah, it needs to be a safe environment. They need to trust me as the leader occasionally, but they need to have a say in the class. Like, I really believe that. If they are more invested in your class, then they are going to do better."

Erin believed that her ability to form relationships with students was more important than some of the other aspects required of teachers, and, while she described herself as less experienced than some of her colleagues, she felt that she excelled when it came to connecting with students. As described in Erin's quote above, she felt that this is important for the transition to higher education because when they are connected to her and her class "they are going to do better", which she believed translated to learning the material better which would help them succeed in their next level of education. Danny shared a similar experience with the importance of developing strong relationships with students, stating:

> "It's much easier to learn from a person that you know and like and respect than it is from a stranger at the front of the room".

This aligns with the work of Ucak (2019), who found that students that liked their teachers were more engaged in their learning in their science classes than those that did not like their science teachers. Similarly, Pianta (2012) described how strong teacher-student relationships are fundamental for student engagement. In this way, engagement is very much relational and reflects a classroom's capacity to promote development.

Bonnie also outlined the importance of relationship to the teacher as one of the key influences on student achievement and a central tenet of her personal philosophy of teaching and learning. The Cornell University Centre for Teaching Excellence (2011) outlines the importance of relationships between educators and their students, noting that affirming connections between individuals is important for creating feelings of being valued and to help promote flexibility in their thinking (which is an important part of the learning process).

5.4 Superordinate theme 3: Experience of Misalignment Between High School and Higher Education Practice and Pedagogy

As addressed in the literature review, Tinto's (1975) Theory of Student Persistence looks at the essential components required for the successful transition to higher education. Though the theory is aimed at students who have already transitioned to higher education, much of Tinto's Theory (and the associated revisions) can apply to the findings of the third superordinate

theme: the experience of misalignment between high school and higher education practice and pedagogy.

5.4.1 Sub-theme 1: Belief that the Differences Between High School and Higher Education Make Preparation for the Transition Difficult

Many participants described their beliefs about the differences that exist between high school and higher education and how this can make it difficult for them to help students with the transition as it feels that many factors are outside of their control. In general, participants described university as a challenging endeavour that requires a great deal of internal motivation. An example of this, as previously shared in Chapter 4, can be seen in Anna's comments:

> "If you go to university, it is not all fun and games, fairy circles and lollipops. It is high stake (sic)".

Anna feels a sense of importance that exists in higher education that is often missing from high school. To this end, she has developed her Pre-Calculus Math 12 course as a university preparatory course, designed in many ways to emulate the high-stakes system of higher education. Her teaching practice includes providing opportunities for students to write larger, more challenging exams on a frequent basis. Tinto referred to the idea that students are not always prepared academically for the transition to higher education in his early work (1975) as a consideration for why some students may not be able to persist in the first year. He argued that both academic and social systems are required for successful student transition. Furthermore, he

argued that the entirety of a student's background needs to be considered, including their experiences in high school.

Participants also referenced the feeling that teachers at the different levels of education provide different classroom experiences. Participants referenced the supportive experiences that students have with their high school teachers and felt that the pedagogical beliefs of their higher education counterparts did not align. This change in teaching structure and function in higher education was suggested as one potential challenge for teachers preparing students as they transitioned from high school to higher education. Cara detailed her own account of preparing students, highlighting how she sees high school teachers support students and make the learning process easy for them, while she sees university professors as more distant in the learning process. Danny shared a similar, though less gentle, vantage. He described his perception how, in addition to the "hand-holding" that high school students receive from many high school teachers, the quality of teaching is also vastly different between the two systems. He described:

> "I know that the instructors at university, while they are like way smarter than us high school guys, are not skilled at teaching for the most part. There are many of them that do not enjoy the teaching aspect of their job. Kids have to really wrap their heads around un-skilled instruction and trying to fill their own gaps. Where, for the most part, in high school, we are pretty good at providing a quality level of education".

While Danny's comments make many assumptions about university professors, it is clear that high quality teaching is important to him. Furthermore, his argument is actually supported

by the work of Jensen (2011), whose research looks at how the pedagogical training difference between secondary school teachers and university professors impacts student learning. Looking specifically at science, Jensen described how faculty in universities are not required to have the same amount of pedagogical preparation as their secondary counterparts. While secondary teachers are required to take training in both science and pedagogy (including everything from planning lessons and assessment to instructional practices and understanding the learner), University professors have educational requirements centred solely on the content area; often a masters or doctorate degree depending on the institution. While there are many examples in the literature of pedagogical training having a positive impact on student achievement (Lawson et al., 2002; Pfund et al., 2009; Postareff et al., 2007), advanced degrees of teaching staff (beyond qualification to teach the subject area) often do not have a significant impact on student achievement (Jensen, 2011). Requirements at the local university in the Research District are that all full-time continuous employees (professors) have a doctorate, though there are some programs with faculty members that work with just a Master's degree. The local University is considered a teaching institution, though some faculties do engage in research. Despite this, the central emphasis for its employees is still the possession of multiple degrees, even within the education faculty where professors are teaching future teachers. There are opportunities for professional development and professional learning through the University's Centre for Innovation and Excellence in Learning.

5.4.2 Sub-theme 2: Perceptions About Assessment

Many participants referenced their perceptions about assessment practices, the differences that exist between them, what is meant by meaningful assessment, and their relative importance within preparing students for the transition to higher education. Erin shared her perception of assessment in higher education as being heavily grade-based, with much less of a focus on the joy of learning. Her personal experience as a university student and her beliefs about whether high stakes summative assessment is the most effective way to demonstrate learning were not completely aligned. While Geoff did not address this mis-alignment, he did reference his perception of difference assessment practices between the two levels of education. When speaking specifically about higher education, he referenced:

"You don't hand stuff in super late and you don't get three goes at your midterm"

This was an important statement for Geoff, who perceives assessment in high school as so flexible (handing things in "super late" and having "three goes" at midterms) that it is no longer a meaningful representation of what a student has learned.

Anna also addressed the perception of a difference in assessment practices between high school and higher education, specifically in terms of how heavily university courses weigh tests (versus their high school counterparts). She described her initial feeling of anxiety when discovering this difference:

> "When you go to university, one of the biggest shockers is how much the tests are worth. There is big-time assessment. I had Math classes where there were only 3 assessments in the whole class. I had classes where there were only two".

This is very different from high school courses, where the current curriculum is moving away from standardised exams and towards multiple means and opportunities for demonstrating learning. This change can be seen as moving from assessment of learning to assessment as (or sometimes for) learning (Wiliam, 2011).

Many participants commented that they wished they had greater connections with their colleagues in university to see if there is agreement on what students need in order to successfully transition to higher education and to share experiences. Some participants were lucky to have had this opportunity in the past. For example, Geoff, Henry, and Felicia had all met with university professors and discussed student success in their relative content areas. All three participants described this opportunity as a useful tool for professional learning for both the high school teachers and university professors.

5.4.3 Sub-theme 3: How Hard to be on Their Pupils

Participants in this study alluded to their struggle with how hard they need to be on their students in order to adequately prepare them for the transition to higher education. For some, "hard" meant providing ample opportunities for challenge and potential failures, for others it meant high standards, lack of flexibility, and centering content over connection. Students begin university with a large degree of variation in terms of their own skills and abilities, many of

which are dependent upon (or related to) their background and experience (Arndell et al., 2012). Tinto (1975) also highlights this variation between students and acknowledges the need to look at all of the relevant characteristics of a student in order to help prepare them for the transition to higher education. For these reasons, some students have higher levels of readiness to begin their post-secondary journey than others. The challenge participants seemed to face is determining the balance between providing academic challenge and high standards in a way that is not too hard, but that is not deemed as "coddling", "spoon feeding", or generally low in expectations.

Participants referenced how students' path after graduation impacts their understanding of their requirements of how hard to be on students. Different universities (and even programs within universities) offer students very different experiences and thus may not necessarily require the same skills for student success. For example, a student entering the nursing program at the local university might need different skills than a student entering the education faculty. Similarly, a student entering a program at a local small University may have a completely different experience than a student entering much larger provincial institutions. The context within these different scenarios makes preparation for higher education as a single event difficult to prepare for (Arndell et al., 2012). Participants shared this view that preparation for higher education is a challenge for secondary teachers as not all students transition to the same thing (even if they are bound for higher education).

All participants spoke in their interviews to some capacity about their personal beliefs and values around what students need to successfully transition to higher education. These beliefs are an important part of the rationale behind the participants' practice. Resilience

(sometimes referred to by participants as grit or determination), self-advocacy (identified in interviews as the ability to seek out help), and self-regulation (described as engaged learners) came up as commonalities across all participants. But what exactly do these terms mean, does the literature agree with their relevance for successful student transition to higher education, and how "hard" does one have to be on a pupil to ensure that they are in fact prepared to be there? Pooley and Cohen (2010) describe resilience as the phenomenon of "bouncing back", and argue that it can be seen as a characteristic (or personal quality), a process, and an outcome. Other authors suggest that the central components of resilience are the presence of adversity in one's life and the ability to successfully adapt when faced with challenges (Luthar et al., 2000; Masten, 2001; Schilling, 2008). Several participants agreed that this adaptability is essential, but also argued the need to provide students with opportunities for experiencing adversity in the first place. Their argument was that teachers are continuously adapting to meet the needs of students and providing a diluted experience, that the need for students to adapt often does not exist. Yet, how does one provide opportunities for experiencing adversity and how much should students be challenged? Despite this notion, most participants agreed that students needed to have a means of overcoming challenges as they arise. Skinner et al (2020) also address resilience as a means of students reaching their full potential and argue that success requires the ability to face challenges and failures often via means of academic coping skills, self-regulated learning, adaptive help-seeking, emotional regulation, perseverance, and re-engagement. While Tinto's (1975) theory looks mainly to belonging and social connectedness as predictors of a successful transition to higher education, he also discusses that academic ability and grade point average can impact successful transition.

A great deal of research has been conducted on why some students are able to persist and rise to the occasion when faced with a challenge, while others simply give up (Mega, Ronconi, & De Beni, 2014). Self-regulated learners are those that are able to persist by planning and adapting their thoughts, feelings and actions to align with their personal goals (Skinner et al., 2020). A self-regulated student would be able to not only determine the requirements of the task, but also their personal requirements in regards to their "optimal learning environment" (Mega, Ronconi, & De Beni, 2014). They are frequently described as engaged (sometimes even life-long) learners and tend to display more academic resilience than their non-regulated peers. Iwamoto et al. (2017) describes self-regulated learners using words like "goal-driven", "motivated", and "independent". Similar terms were used by participants in this study to describe what students need in order to be successful in university: Anna and Henry referred to "grit" and "tenacity", Danny described "drive" and "independence", while Bonnie utilised the term "self-control". Tinto (1975) suggests that student persistence is strongly tied to students' level of institutional commitment and striving to achieve their goals.

5.4.4 Sub-theme 4: Impact of Technology Use on Experience

Given that interviews were conducted in the summer following the initial wave of COVID-19, whereby all local schools were moved into a phase of full-time mandatory home/online learning, it is not surprising that some participants addressed the impact that technology plays on people's (both students and teachers) experiences. What was interesting to see was that there were some very different perspectives on the role of technology within student preparation for higher education and whether or not it was advantageous for students or not.

There were also participants who felt that technology had an enormous impact on their experience, and others who felt it was negligible. Participants described the impact of technology as everything from harmful to incredibly helpful (and everything in between). Much of the participants' beliefs seem tied to individual teaching styles and beliefs about how students learn best.

For those whose participants who described the student use of technology as having a negative impact on their practice, they were generally opposed to its use in the classroom. Most reasoning stemmed from issues with switch-tasking, distraction, and the inability to think creatively. Bonnie was the most outspoken participant about the negative impact of technology on student learning. She described her perception of the change over the past several years as technology and social media has come more prevalent. She described how her students seem so used to multi-tasking that they struggle to maintain focus in her course, which then requires more work on her part assisting students with concepts that they did not understand the first time. As Bonnie suggests, Smidt (2020) describes how switch-tasking, or multi-tasking while doing school work can negatively impact both student learning and performance. Learning tasks take longer to complete, there can be mental fatigue, reduced retention capacity, and less adaptability for those frequently moving between different tasks (which is a common occurrence for students when utilising technology). Perhaps the greatest challenge of switch tasking is that one person cannot actually achieve two things simultaneously (Crenshaw, 2021). This means that students who are listening to music and checking Instagram while working on their Google Classroom are not actually capable of focussing on three different things at one time. Another challenge is that

young people often feel that they are skilled at moving between different tasks in this fashion, and as such are not able to see the potential harm of their actions (Smidt, 2020). Several participants also noted that this phenomenon appears to be much more common in younger grades (eight and nine) than in older grades (ten to twelve), where students appear more readily able to self-regulate their technology use in a more appropriate way (less social media use). This lack of self-regulation then interferes with the teachers' ability to help prepare students for higher education.

While Henry acknowledged many of the same concerns shared by Bonnie, he also shared concerns he had with his colleagues who banned technology completely without arming students with any of the skills required to successfully navigate technology use in the real world. His thought was that students are now bombarded with technology all of the time as they are living full time in a technological world. Henry's concern was that forbidding technology use in the classroom does not promote or educate students on the responsible use of technology- skills that they will require as they transition to higher education. He described:

> "It's like McDonald's, where they have a locker that their phone goes into. They lock their phone up and then they go through their day with it being a forbidden fruit. When they get a break they go and get it. But where have they used the appropriate use of technology? Where have they learned anything about self-control? When did they learn that they can have temptation beside them and have the ability to say no?

Henry advocated that we steal potential growth opportunities from students by treating technology as "forbidden fruit" and not allowing them to develop necessary skills by simply banning technology use. Bonnie also acknowledged the reality that many students lack the ability to regulate technology use, but also addressed the inequity challenges presented by teachers requiring students to access technology at home in order to be successful in the course. She suggested that while that may be an acceptable reality for some of the larger more affluent schools in the district, it was not a reality in her community school where there is a significantly larger proportion of vulnerable students. She did not feel it was either fair or ethical to ask students to spend hours at home on technology when they may be required to work to help support their family, may not have the required devices, or may have home-life situations that require them to be out of the house for significant portions of the time. This also meant that some students might be given more opportunities for preparation than other students based on their socioeconomic status.

Several participants also commented on the challenges associated with using technology as a teacher, namely the lack of available resources and infrastructural support. One participant commented that wifi was far too unreliable to actually make use of any sort of technology in her classroom in a meaningful way, while another addressed the difficulty of accessing computers for classroom use as there were not enough computers available at any given time to meet the demand. Baek, Jung, and Kim, (2008) and Hyndman (2018) shared a similar sentiment, arguing that many of the challenges teachers face are to do with the technology itself (including infrastructure), adding that often there are not enough appropriate professional learning

opportunities for developing the required technical skills. As previously stated, one participant commented on the privileged assumptions that are made around tech. There appears to be a large difference between schools in the district in terms of technology. From my own experience, one of the more affluent schools in the district strongly suggests that all grade 8 students have their own personal Chromebook or laptop for their school experience. A suggestion of this nature would not even be possible at other schools in the district. There is also the assumption that there is time to spend online each day. In addition to those students that are required to have full-time work, many students are involved in extracurricular activities that make it impossible to do hours of additional work, online or otherwise.

Several participants spoke of the benefits of utilising technology both inside and outside of the classroom- especially in terms of preparing students for higher education. The most common responses were that technology allows students to have knowledge at their fingertips, they can more readily access resources, make up for missed classes, engage in extended learning opportunities, and make use of educational programs and videos to further their understanding of the topic of study. Technology has been found to be a useful tool for increasing student engagement and personalising learning (Azhar & Iqbal, 2018), for improving teacher practice, encouraging inquiry, bettering communication, and allowing students more diverse opportunities for self-expression (Baek, Jung, & Kim, 2008). Afshari et al. (2009) also outline the benefits of technology in terms of widening educational opportunities for students, though this can only be true if there is equitable access to technology in the first place.

All but one participant identified using Google Classroom in some capacity as a part of their teaching practice pre-COVID (during COVID, all participants were required to use technology to communicate with students in some fashion). Google Apps for Education (GAFE) launched Google Classroom in 2014 (Azhar & Iqbal, 2018). It is free for teachers and students and is supported for use by the school district provided it is used according to our PIA (Privacy Information Assessment). Google Classroom is highly rated as one of the best digital platforms for use by teachers with students because of its capacity to enhance workflow (Iftakhar, 2016), a perspective that was shared by Anna, Bonnie, and Henry. Shaharanee, Jamil, and Rodzi (2016) describe the ease of use, capacity to increase communication with students, the ability to create and organise assignments quickly and to provide feedback efficiently as reasons for its appeal to teachers. Google classroom also allows for multiple teachers to share one classroom, for collaboration across classrooms, for the presentation of additional reference materials to support learning, and as a structural framework to support the "flipped classroom" model (Bhat, Raju, Bikramjit, & D'Souza, 2018). It is a great way to provide students with the opportunity to become independent learners, which is a desirable skill for students (especially those transitioning to higher education).

Several participants addressed these advantages in their interviews. Henry commented on how student absences in senior academic courses almost necessitated the use of Google Classroom to provide the materials for students missed while absent and for additional resources for those students who wanted to expand their learning beyond that which was presented in class. This allows him to help students build the skills necessary for higher education in a way that is

much more convenient for both him and the students. Erin discussed the advantage of using Google Classroom in a small school where senior academic courses are often forced into the "flipped classroom" model because there are students taking multiple different courses in the same room. In this way, Google can be used as the platform to provide the materials necessary to learn and understand the concepts while the teacher acts as a sounding board for questions and clarifications. She felt this was especially relevant for the transition to higher education, as this provides students with a similar learning opportunity to what they will see in higher education. It is interesting to note that the pedagogy associated with the use of Google Classroom did not come up in any of the interviews. Heggart and Yoo (2018) discuss how this may be problematic, as teachers have quickly implemented technology (such as Google Classroom) without always having a clear understanding of the impact on actual teaching and learning practice. I know within my professional role within the district, there has been some discussion of how Google Classroom may facilitate using outdated practices by providing a simple means for electron-ifying a "stand and deliver" model. Furthermore, the gradebook does not align with the proficiency-based assessment scale that is utilised by our district.

5.5 Superordinate theme 4: The Impact of a Global Pandemic on Preparing Students for the Transition to Higher education

As outlined in the introduction, the interviews conducted for this research occurred during the summer of 2020, after the initial occurrence of COVID-19 in the spring where all students in the province of British Columbia did not return to school after spring break. Instead, students learned from home until an optional (and part-time) return in May. All participants were

asked about COVID-19, specifically in terms of its impact on their experience of preparing students for higher education. At the time of the interview, participants were unaware of how school would proceed in the fall, but had spent some time reflecting on their perception of how the recent online learning had impacted their capacity to prepare students for the transition to higher education. Self-determination theory (Deci & Ryan, 1985), is a human motivation theory that explains motivation and human needs within a social context. The theory suggests that all individuals require three things: autonomy, competence, and relatedness in order to have the motivation or engagement to continue. This theory illuminates participants' perception of the challenges of providing these requirements for students during the at-home learning portion of COVID-19, and the potential impact of the lack of participation that followed on the preparation for the transition to higher education. Participants referenced that students who were able to access these components, were generally able to engage and learn from home. However, as teachers, it was challenging to provide opportunities for building students' autonomy, competence and relatedness within an online learning environment that had almost no lead time.

Many participants spoke of the unintended benefits of COVID-19 for those students who were able to engage with learning during this time. Participants' at-home teaching and learning experience was described as a good "practice" endeavour for students who were forced to work in an environment that would be similar to university (with less structured class time, less support from the teacher, and more independence required). Anna described her experience with students benefiting from using new technological platforms:

> "I think in some ways it (COVID-19) was positive, as it gave them an opportunity to have online learning well before they are going. Not a lot of kids have had access to a learning management system. To access the info and to return the info to an online learning management system. So I actually think some of our kids were lucky".

Given her previous comments about the importance of being self-sufficient learners for the successful transition to higher education, it follows that her experience appreciated how at-home learning gave students a taste of independence and the associated time management skills.

Other participants also referenced how at-home learning during Covid provided students with a taste of what university might be like. However, they also acknowledged that it was a low pressure opportunity as the district mandated that students (and more specifically their grades) could not be negatively impacted by COVID-19. This meant that if students did not complete their work or demonstrate learning beyond that which was shown in March, their grades would remain unchanged. Like Anna, Bonnie referenced COVID-19 at-home learning as good preparation for students looking to be successful in higher education in that they were fortunate enough to already experience the transition to a different form of learning. Bonnie shared:

> "I think that that kind of watershed moment for those kids having to dig deep and teach themselves, it's going to come to everybody at some point in time if they choose a more rigorous post-secondary in Maths and Science. I don't hold what I do in preparation academically to be so important that it's one hundred percent needed, so I feel they just will have to do more to catch up. They are either going to find that grit within themselves

to get through the gauntlet, or they are not, and they would do that without the COVID stoppage or not ".

Bonnie's quote above suggests that it's not about teachers' roles in preparing students, but rather students' abilities to find it within themselves to rise to the challenge. For those willing and able, COVID provided a low-risk opportunity to challenge themselves before going to university. Danny shared a similar sentiment, highlighting that:

"It's probably good for some of them to have to learn online because it actually made them adapt again. It made them see something new".

Given Danny's previous comments about the need for students to have opportunities to face adversity, it makes sense that he would view COVID-19 in this way. A key word for Danny appears to be "adapt". His belief about the successful transition to higher education centres around students needing to learn how to adapt. "Good" teachers provide the opportunity to do this often while poor systems are designed to make the adaptations for students.

Many participants chose to focus on the diminished capacity of their courses because of the virtual classroom and the inability to be punitive with students that did not complete their work. Bonnie spoke of how challenging it was at the start of at-home learning, as schools were not initially given the ability to communicate with students which left many without any work to complete for weeks on end. She shared her frustration, as a teacher already using Google Classroom prior to COVID-19, the inability to post the answers to a practice worksheet she had given prior to at-home learning for several weeks after school was supposed to have returned to

session. Utilising Deci and Ryan's (1985) Social Determination Theory, Bonnie felt a lack of autonomy for both her and her students, as well as a lack of connection and effectiveness. Without these psychological needs met, students can feel fragmented and isolated, leading to a reduction and engagement in learning (Chiu, 2021).

Several participants commented on the reduced amount of content presented, with only Geoff self-declaring to have completed the course. Most other participants suggested that somewhere between 50 and 60% of the course was completed (by those students that were engaged and participating in their learning). It should be noted that teachers were explicitly instructed by both ministry and district personnel to significantly reduce the volume of their courses and perform compassionate assessment as many students were not able to complete work because of barriers outside of their control. Many participants perceived that these changes would result in students transitioning to university with content deficits, and that there would be large differences in terms of what these deficiencies will be based on teachers, schools, and districts.

While participants acknowledged that for some students COVID-19 was an added layer of preparation for higher education, participants also addressed some students' inability to deal with the reality of learning at home without a supportive classroom environment. Bonnie, who was quick to acknowledge how the pandemic aided the preparation of some, was also eager to point out those students who could not adjust:

> "The COVID thing was really interesting. It bit them in the butt, a lot of them. They were like, I am going to glide, glide, glide, do nothing, and then I am really going to put the fire. Then they realised that they couldn't bounce back because they weren't in class anymore".

Anna shared this sentiment, that:

> "They had all this free time and did nothing".

She remarked on the disappointment she had that students were not trying (or "doing nothing") and took their inability to participate as her personal failure. She also addressed the impact at-home learning had in that classrooms more readily allow for the formation of relationships, which is much more challenging in a virtual setting. Chiu (2021) also suggests that pedagogical design is required to address the psychological needs (including forming relationships) with students in order for them to be able to engage in learning, and that teachers play an important role.

For obvious reasons, literature on the impact of COVID-19 is only just beginning to accrue and will likely continue to evolve over time. Much of the current literature on the educational impacts of COVID-19 comes from work out of China (Son et al., 2020) and tends to focus on higher education. What is clear from the research that has been done so far is that COVID-19 has had a considerable (negative) impact on a variety of academic-, health-, and lifestyle-related outcomes (Aucejo et al., 2020; Conway et al., 2020; Son et al., 2020; Wang et al., 2020). A recent study by Aucejo et al. (2020) highlights negative impacts across several

dimensions showing that as a result of COVID-19, 13% of students surveyed expect delayed graduation, 40% have lost a job, job offer, or internship, and 29% now expect to earn less at the age of 35. From these early studies, it seems likely that there will also be an impact on the transition to higher education. While literature on the impact of COVID-19 on students is beginning to emerge, there is still very little research on its impact on teachers, and even less on how this will impact their ability to prepare students with the transition to higher education in future years.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Addressing the Research Objective and Question

This study reports how teachers experience preparing students for the transition to higher education. A better understanding of this experience is important in order to support teachers with their work and for the design of professional learning opportunities that are better suited to the needs of both teaching staff and students. Furthermore, it fills a gap previously described in the literature review. As outlined in Chapter 1, the Research Objective of this study was: "to explore how secondary school teachers experience supporting the transition of grade 12 students to higher education" and sought to address the following research question:

1. How do teachers experience preparing grade 12 students for higher education?

I outline how this study answered this research question in the sections that follow. As discussed in Chapter 5 (reflected in Table 5.1), four superordinate themes were identified across all participants: the specific experience of preparing students for higher education, misalignment between high school and higher education practice and pedagogy, socio-cultural influences on experiences, and the impact of COVID-19 on preparing students for the transition to higher education.

6.1.1 How do teachers experience preparing grade 12 students for higher education?

As referenced in Chapter 3, experience encompasses many different components including feelings, values, beliefs, perceptions, personal accounts, and meanings of events

(Eatough & Smith, 2008). In this study, participant experiences reflected a discourse in beliefs about what they are preparing students for, the difference between their professional identities and their belief about their role, and the experience of blame in terms of why students are not adequately prepared for the transition. Furthermore, many participants were impacted by socio-cultural influences beyond their control (such as school size) and the perception of misalignment between practice and pedagogy at the different levels of instruction.

The revelation of this unique experience, that of secondary Maths and Science teachers preparing students for the transition to higher education, is novel as there are very few studies that address the transition to higher education from the perspective of secondary teachers. Keiler (2018) was presented in the literature review as one study that does have a similar focus, however, the study focussed mostly on the impact of student-centred classrooms on teacher identity and not on teacher experience within this work. Furthermore, the suggestions of the study focussed on potential changes around pre-service teacher training and professional development opportunities. In other words, there was suggested guidance for how teachers could deepen their understanding of student-centred classrooms, but not what could be done to help support teachers' work preparing students for the transition to higher education.

Teachers play an incredibly important role in the lives of students (Martin & Collie, 2019), and their work within a professional environment is complex. Many of the findings from this study relate to the concept of conflict within their experience, specifically around the complexity of what it means to be a teacher and all that it entails. For example, participants referenced conflict arising from the differences that exist between their professional identities

and their belief about their role in preparing students for higher education. Given the existence and nature of curriculum reform in the province, there appears to be misalignment between policy and practice. The perceived misalignment between high school and higher education practice and pedagogy also contributed to participant conflict about assessment and how hard one should be their students. While research on teacher experience (especially in the Canadian context of preparing students for higher education) is limited, research that includes the element of conflict is absent in the literature.

Furthermore, individual teachers respond differently to their freedom to shape their own practice. Deci and Ryan (2008) refer to this as autonomy, the direction over one's decisions and actions. Despite the new curriculum and its intentions, teachers still have the autonomy to structure their practice however they choose. For some participants, this means more than simply preparing students for higher education and instead setting them up as lifelong learners. For others, it means helping students attain a rigorous standard of learning that helps them deepen their understanding of the material. Furthermore, while the curriculum outlines what students learn, there is considerable freedom around how teachers assess what has been learned. Participants demonstrated different views about what constitutes meaningful assessment and how its implementation can support students as they transition to higher education.

Additionally, all but one participant had thoughts to share about how the COVID-19 pandemic affected their ability to prepare their students for higher education. The one participant that did not share their experience was on medical leave during the at-home learning and return to school portion at the beginning of the pandemic, so could not really comment. While

participants did address the missed opportunities around connecting with students and that less content was covered, many chose to focus their responses on the potential opportunity that COVID-19 presented for students to experience the transition to an independent learning opportunity that was similar in many regards to higher education. Some participants felt that if students were actually able to meet the demands of this unique year of learning, that they would be well prepared for the transition to higher education. The reality was also presented that many students were not able to meet the demands of pandemic learning and that they would be entering higher education with profound curricular deficits that would have a negative impact on their ability to successfully transition to higher education. Pownall, Harris, and Blundell-Birtill (2021) suggest that to best support students transitioning to higher education during COVID-19, educators should attend to the challenge of helping students to reacclimatise to academic work following a period of prolonged educational disruption. The participants in this study further suggested that there will need to be some consideration of the deficits that many students will be entering higher education with.

Finally, I believe that it is important to acknowledge the reality that no participant discussed Indigenous Education, Indigenous students, or Truth and Reconciliation as part of their experience. This likely is a reflection of the under-representation of Indigenous students within senior Maths and Science courses and the work that still needs to be done in terms of Truth and Reconciliation. This can also be seen in the description of some of the Colonial instruction and assessment practices as described by participants. Despite the fact that participants did not include Indigenous understandings as a part of their experience, there are still applications from

this work that could allow us to better support our Indigenous Learners, including an emphasis on forming connections with trusted adults in the building and a focus on skills over content.

6.2 Reflexive Practice

While I have learned a great deal about high school teacher experience supporting the transition to higher education and within educational reform, I would also like to acknowledge the personal growth journey that I have been on throughout this thesis and program. While completing this EdD, I have had the opportunity to change from a classroom teacher, to head of department (Learning Leader), to District Learning Coordinator (with a focus on instruction, assessment, equity, and inclusion), and finally to a School Vice-Principal. This shift was more than just a shift of responsibilities, and aligns with the shift in worldview I was going through both personally and professionally as I began to see the education system with a more equitable lens than ever before in my career. Equity now stands at the forefront of my decision-making, and is a huge component of who I want to be as an educational leader within my district.

I have also experienced multiple hardships throughout the duration of this program, including a child with a life-threatening illness, a decline in my own health resulting in a surgery with many complications, aging parents in hospital, and my father being diagnosed with Multiple Sclerosis. I also experienced 5 different thesis supervisors and completed my studies and thesis within the context of a global pandemic, while working full time and raising two small children. These experiences, like my change in work roles, have shifted who I am and how I see the world. The irony is not lost on me that one of the greatest things I have learned from all of this is the

fundamental importance of better understanding the human experience, and how doing so better allows for transformational change to take place. To not acknowledge the impact of these experiences would be inauthentic and not display the true reflexivity that has occurred throughout my journey in this program. Below are the recomendations from this study based on the findings and what I have learned as a result.

6.3 Recommendations from this Study

6.3.1 My Practice

Through my learning in this program and my professional experiences, both my interests and educational values have shifted. Though my research topic has remained consistent, my understanding of its importance has definitely changed. What started as a means to shift practice to improve the successful transition of a small group of core students to higher education, has become a renewed focus on improving teacher practice in a way that will positively benefit all students, regardless of their path after high school graduation. One of the participants said it best in their interview, that the skills needed for success in higher education are the same as those needed for success in the workforce, so why limit learning to such a small group.

In terms of how this research will impact my practice; clearly, the end result is not in the ways that I thought it would. I had initially thought that a greater understanding of teachers' experiences would help to provide professional learning opportunities to help guide teachers attempting to support students moving on to higher education. In reality, the experiences shared by participants really shed light on some of the difficulties we have had as a district over the past

few years when it comes to changing practice amongst this group of teachers, and some of the holes that exist within the current curriculum. Though the new curriculum has been in effect since 2016, there has been a very slow shift amongst our grade 10-12 teachers, especially in the areas of Maths and Science. Despite the intent for these courses to be focussed on big ideas and be competency (as opposed to content) driven, in practice, much of our graduation program looks exactly the same as it did before the curriculum change, especially when it comes to assessment and instruction. To add additional complexity, The Ministry of Education has released a draft reporting policy that will place a great onus on school districts to ensure that the new curriculum is being followed (Reporting on Student Learning, 2021). Furthermore, the University of British Columbia (the largest and most well-renowned institution in the province) recently indicated that they will be using the grade 12 literacy assessment as one indicator when determining admission (How to Keep Your Offer of Admission-UBC, 2021). This is a confusing addition, as the assessment was initially designed to support student learning and not as a summative assessment replacing the old provincial exams.

The findings of this study and my learning from this program will fundamentally alter the way I offer professional learning opportunities within my role in the future. The recommendations for my own practice are to provide professional learning opportunities that look at ways to support students who are transitioning to higher education in a more inclusive and systematic way while simultaneously acknowledging teacher autonomy and the role this has within classroom practice. By focusing on providing opportunities for staff to help students learn social and emotional learning tools, foster resilience, build agency, and collaborate with others,

the system can better support those students who are transitioning to community colleges, the work force, or any other opportunity outside of higher education. I think it will also be important to address the conflict that many teachers feel about curriculum reform and their role within it. Many teachers feel challenged that the required changes take a reductionist approach and lessent the difficulty of the course, something they value within their role as a "good teacher". Furthermore, I recommend that some of this professional learning center on becoming critically reflective practitioners as described by (Larrivee, 2000). When teachers develop in this way, they move past discrete skills and begin to integrate and modify skills to their contexts as well as invent new strategies. Teachers build capacity to develop the necessary self-efficacy required to problem solve the scenarios that arise as part of their practice.

6.3.2 Teaching and Learning

From the experiences shared in this study by teachers of Maths and Science, there is still work to be done to make the shift to competency based assessment, especially in our senior grades. What this thesis has really shed light on is the belief that teachers have a fiduciary responsibility to prepare students for higher education, and that this perceived responsibility impacts instruction and assessment practices. Furthermore, curriculum reform in the province of British Columbia has focussed mostly on content and method, with little consideration to teacher autonomy and its impact on the reform. Aguirre and Speer (1999) highlight that teacher practice is complex and is often linked to values and personal beliefs about what is needed to be successful in the first place- but they do not address how these values shape practice in reference to specific curriculum reform. This is only further complicated when one looks at practice in

terms of preparing students for the transition to higher education. While most teachers can identify the skills that are needed, the way that they choose to prepare these skills is often to align with what they perceive as happening in higher education (one participant even referred to running their course like "university light"). For example, they need students to be independent learners with good work habits, but instead of scaffolding activities to support these skills, they provide an abundance of difficult work where students are forced to manage their time and workload. They want students to be resilient, but instead of a focus on the skills required to be resilient, the focus becomes on providing many opportunities where resilience is required (often in the form of high stakes tests).

While the new curriculum is designed to reflect important student competencies, the focus is on student skills and teacher instruction. There is considerable autonomy around teacher assessment (especially from grade 10-12), and there has been less movement in practice in this regard. Additionally, many teachers still value the importance of a rigorous education where students learn difficult material and are challenged in the classroom setting. A recommendation from this study would be to focus on aligning assessment with instruction practices in a way that does not compromise the academic integrity of the course. This includes working with Maths and Science teachers to develop both formative and summative practices that align with the current curriculum but that do not necessarily reduce the level of difficulty of the course. Furthermore, work could be done to liaise with the Ministry of Education to create provincial opportunities for clarity around assessing the new curriculum, as current efforts have been on

instruction and reporting. Ministry pilot schools that have spent the last four years focussing on reporting, could shift to include specific competency-based assessment strategies.

6.3.3 Future Research

When looking at the transition to higher education in British Columbia, there are two distinct areas that appear to need more research. The first is a comparison between high school and university teachers about the values and beliefs of what is required for learners to be successful in higher education. It is clear that high school teachers have certain beliefs about what is needed, and often design their programs and practice based on these assumptions. What is less clear, is whether these values are true of the institutions that students attend after high school. Do university professors value the same skills that high school teachers are trying to instil, and furthermore, can they identify the traits that they have been working so hard to foster? Additionally, since this research looks at the successful transition of students to higher education, it would be interesting to ask university students whether or not they felt that their high school Maths and Science programs left them feeling prepared for higher education. They could be asked after they graduate high school (but before beginning university) and then again at the end of their first year of university. This would help to look at the transition from yet another perspective.

Additionally, the nature of curriculum reform, especially in terms of aligning assessment practices with instruction, is an area that could be further developed in the future. As it currently exists, the curriculum provides complete teacher autonomy in terms of how teachers assess

learning, which often ends in teachers reverting to assessment practices that align more readily with previous (and considerably more traditional) versions of the curriculum. Challenges also exist in curriculum implementation, which has been described by authors in several countries who have undergone a similar progressive educational reform at the secondary level. For example, Sinnema, Nieveen, and Priestley (2020) describe the curriculum in Wales (and that of Scotland, New Zealand, and the Netherlands) as having an over-emphasis on skills prioritising the how over the what. The curricula in these countries have been criticised for downgrading the importance of content knowledge (Young, 2008; Rata, 2012; Priestley & Sinnema, 2014). Further research could be done to study the curriculum in British Columbia and the impact it has on teaching and learning in the province.

In the future, there will also likely be a great deal of research generated based on the impact of the COVID-19 on student education. This could be some sort of longitudinal study that sees if there was an impact (negative or positive) of at-home learning and/or online learning on the transition to higher education? Would students agree with teachers that their experience of learning from home with little support left them better prepared for higher education? Was there an impact of students entering higher education with knowledge gaps from high school? It would also be interesting to look at the long-term changes to schools that result because of COVID-19, in other words, what changes will be kept long after COVID-19 is over.

Finally, it is clear given that no participants addressed indigenous education (or indigenous learners) at any point during their interviews, that there is still a great deal of work to do in terms of Truth and Reconciliation and the de-colonialization of curriculum, instruction, and

assessment practices. Future research could be conducted on the achievement gap that exists between indigenous and non-indigenous students and the de-colinzation work that is likely needed to bridge the gap.

6.4 Closing Reflection

When I began this thesis I had a role similar to the participants in this study; teaching senior science (Chemistry) at one of the larger high schools in the district. My experience, and in some cases my values and beliefs, aligned with many of the participants. As addressed above, over the past few years that I have worked on this doctorate, I have also had the opportunity to progress my career through several different positions. These opportunities have allowed me to develop a more fulsome understanding of the nature of our current curriculum reform and teachers' experiences within it. Through my work in these positions, as well as through the research performed for this thesis, my values and personal beliefs around the purpose of education have shifted. Similarly, my understanding of the role of teachers in preparing students for higher education has also changed.

At the beginning of this journey, like most of the participants that were interviewed for this thesis, I believed that a significant portion of my role was to prepare students for university. I now see the role of a secondary Science/Maths teacher as far more complex. As educators, we each bring our own understanding of the purpose of teaching and learning, and value different components within the profession. At times, teachers can experience conflict as a result of the complexity that exists within a teachers role, and this conflict, especially within the context of

education in British Columbia and within Science and Maths teachers, has been historically underrepresented in the literature. This study contributes to the literature by looking at teacher experience within this critical curriculum reform, especially as it relates to how they prepare students for higher education. Furthermore, as I have grown and learned myself throughout this program, I have come to acknowledge the importance of viewing the transition from high-school as one to prepare students to be lifelong learners, something that benefits students regardless of where their path may take them (be it higher education, the workforce, or familial obligations). This includes the ability to think critically, communicate and collaborate effectively, and a sense of personal and social responsibility, all of which are tenets of the current curriculum. I also see the strength in the flexibility offered by this curriculum, allowing a focus on developing the skills needed for a twenty-first-century learner. I am excited to use this transformation in my own understanding of learning and rigour to design professional learning opportunities for my colleagues designed to promote the skills that participants described as necessary for a successful transition to higher education, with the understanding that this skill development can occur in many ways outside of mimicking the systems and structures that are found in higher education.

CHAPTER 7: REFERENCES

Aaronson, D., Barrow, L., & Sander, W. (2007). Teachers and student achievement in the Chicago public high schools. *Journal of labor Economics*, *25*(1), 95-135.

Abi-Raad, M. (2018). The Implicit Role of First-Years' Higher Education Faculties. *IAFOR Journal of Education*, *6*(1), 7-23.

Afshari, M., Bakar, K. A., Luan, W. S., Samah, B. A., & Fooi, F. S. (2009). Factors affecting teachers' use of information and communication technology. *Online Submission*, *2*(1), 77-104.

Aguirre, J., & Speer, N. M. (1999). Examining the relationship between beliefs and goals in teacher practice. *The journal of mathematical behaviour*, *18*(3), 327-356.

Alanazi, S. (2016). Comparison for curriculum ideologies. *American Research Journal of Humanities and Social Sciences*, *2*(1), 1-10.

Alase, A. O. (2016). *The impact of the Sarbanes-Oxley Act (SOX) on small-sized publicly traded companies and their communities*. Northeastern University.

Alase, A. (2017). The interpretative phenomenological analysis (IPA): A guide to a good qualitative research approach. *International Journal of Education and Literacy Studies*, *5*(2), 9-19.

Aljohani, O. (2016). A Comprehensive Review of the Major Studies and Theoretical Models of Student Retention in Higher Education. *Higher education studies*, *6*(2), 1-18.

AlKandari, N. Y. (2020). Students' anxiety experiences in higher education institutions. In *Anxiety Disorders-The New Achievements*. IntechOpen.

Alkrdem, M. (2020). Contemporary Educational Leadership and its Role in Converting Traditional Schools into Professional Learning Communities. *International Journal of Educational Leadership and Management*, *8*(2), 144-171.

Alspaugh, J. W. (1998). The relationship of school-to school transitions and school size to high school dropout rates. High School Journal, 81(3), 154-160.

Alvi, M. (2016). A manual for selecting sampling techniques in research.

Archambault, I., Vandenbossche-Makombo, J., & Fraser, S. L. (2017). Students' oppositional behaviours and engagement in school: The differential role of the student-teacher relationship. *Journal of Child and Family Studies*, *26*(6), 1702-1712.

Arndell, M., Bridgeman, A. J., Goldsworthy, R., Taylor, C., & Tzioumis, V. (2012, August). Code for success: A roadmap as an organising device for the transition of first year science students and the development of academic skills. In *Proceedings of The Australian Conference on Science and Mathematics Education (formerly UniServe Science Conference)*.

Attinasi Jr, L. C. (1989). Getting in: Mexican Americans' perceptions of university attendance and the implications for freshman year persistence. *The Journal of Higher Education*, *60*(3), 247-277.

Attinasi Jr, L. C. (1994). Is going to college a rite of passage. In *Annual Meeting of the American Education Research Association, New Orleans, LA*.

Aucejo, E. M., French, J., Araya, M. P. U., & Zafar, B. (2020). The impact of COVID-19 on student experiences and expectations: Evidence from a survey. *Journal of public economics*, *191*, 104271.

Azhar, K. A., & Iqbal, N. (2018). Effectiveness of Google classroom: Teachers' perceptions. *Prizren Social Science Journal*, *2*(2), 52-66.

Baek, Y., Jung, J., & Kim, B. (2008). What makes teachers use technology in the classroom? Exploring the factors affecting facilitation of technology with a Korean sample. *Computers & Education*, *50*(1), 224-234.

Baker, P. J. (2011). Three configurations of school-university partnerships: An exploratory study. *Planning and Changing*, *42*, 41-62.

Bannister, T. (2019). Teaching is a work of heart: A narrative inquiry on the impact of trauma-informed practice on teacher self-efficacy.

Barker, B., Sedgemore, K., Tourangeau, M., Lagimodiere, L., Milloy, J., Dong, H., ... & DeBeck, K. (2019). Intergenerational trauma: The relationship between residential schools and the child welfare system among young people who use drugs in Vancouver, Canada. *Journal of Adolescent Health*, *65*(2), 248-254.

Bengmark, S., Thunberg, H., & Winberg, T. M. (2017). Success-factors in transition to university mathematics. *International journal of mathematical education in science and technology*, *48*(7), 988-1001.

Benner, A. D. (2011). The transition to high school: Current knowledge, future directions. *Educational psychology review*, *23*(3), 299.

Berkovic, D., Ayton, D., Briggs, A. M., & Ackerman, I. N. (2020). The view from the inside: Positionality and insider research

Besi, M., & Sakellariou, M. (2019). Factors associated with the successful transition to primary school. *European Journal of Education Studies*.

Bhat, S., Raju, R., Bikramjit, A., & D'Souza, R. (2018). Leveraging E-learning through Google classroom: A usability study. *Journal of Engineering Education Transformations*, *31*(3), 129-135.

Boddy, N., Watson, K., & Aubusson, P. (2003). A trial of the five Es: A referent model for constructivist teaching and learning. *Research in Science Education*, *33*(1), 27-42.

Bourdieu, P. (1990). *In other words: Essays towards a reflexive sociology*. Stanford University Press.

Bowne, M. (2018). Development of one's teaching philosophy: the three "R's" of relationships, relevancy, and rigor. *Empowering Research for Educators*, *2*(1), 1.

Brannick, T., & Coghlan, D. (2007). In defense of being “native”: The case for insider academic research. *Organizational research methods*, *10*(1), 59-74.

Braxton, J. M., Shaw Sullivan, A. V., & Johnson, R. M. (1997). Appraising Tinto's theory of college student departure. *HIGHER EDUCATION-NEW YORK-AGATHON PRESS INCORPORATED-*, *12*, 107-164.

Brinckerhoff, L. C. (1996). Making the transition to higher education: Opportunities for student empowerment. *Journal of learning disabilities*, *29*(2), 118-136.

British Columbia Higher Education Accountability Dataset. BC HEADset. (n.d.). http://bcheadset.ca/.

Brocki, J. M., & Wearden, A. J. (2006). A critical evaluation of the use of interpretative phenomenological analysis (IPA) in health psychology. *Psychology and health*, *21*(1), 87-108.

Brody, H. (1987). Stories of sickness. New Haven, CT: Yale University Press

Brown, R. (2000). Social identity theory: Past achievements, current problems and future challenges. *European journal of social psychology*, *30*(6), 745-778.

Burke, A. (2019). Student retention models in higher education: A literature review. *College and University*, *94*(2), 12-21.

Butler, A., & Sinclair, K. A. (2020). Place matters: A critical review of place inquiry and spatial methods in education research. *Review of Research in Education*, *44*(1), 64-96.

Cal, A., & Tehmarn, A. (2016). Phenomenological Epistemology Approaches and Implications for HRD Research and Practice.

Cano-García, F. J., Padilla-Muñoz, E. M., & Carrasco-Ortiz, M. Á. (2005). Personality and contextual variables in teacher burnout. *Personality and Individual differences*, *38*(4), 929-940.

Casanova, J. R., Cervero Fernández-Castañón, A., Núñez Pérez, J. C., Almeida, L. S., & Bernardo Gutiérrez, A. B. (2018). Factors that determine the persistence and dropout of university students. *Psicothema, 30*.

Chan, Z. C., Fung, Y. L., & Chien, W. T. (2013). Bracketing in phenomenology: Only undertaken in the data collection and analysis process. *The qualitative report*, *18*(30), 1-9.

Chiu, T. K. (2021). Applying the self-determination theory (SDT) to explain student engagement in online learning during the COVID-19 pandemic. *Journal of Research on Technology in Education*, 1-17.

Chong, W. H., Huan, V. S., Quek, C. L., Yeo, L. S., & Ang, R. P. (2010). Teacher-student relationship: The influence of teacher interpersonal behaviours and perceived beliefs about teachers on the school adjustment of low achieving students in Asian middle schools. *School Psychology International*, *31*(3), 312-328.

Christensen, M., Welch, A., & Barr, J. (2017). Husserlian Descriptive Phenomenology: A review of intentionality, reduction and the natural attitude. *Journal of Nursing Education and Practice*, *7*(8), 113-118.

Chun Tie, Y., Birks, M., & Francis, K. (2019). Grounded theory research: A design framework for novice researchers. *SAGE open medicine*, *7*, 2050312118822927.

Chung-Parsons, R., & Bailey, J. M. (2019). The hierarchical (not fluid) nature of preservice secondary science teachers' perceptions of their science teacher identity. *Teaching and Teacher Education*, *78*, 39-48.

Coffey, A. (2013). Relationships: The key to successful transition from primary to secondary school?. *Improving Schools*, *16*(3), 261-271.

Conner, T. (2016). Relationships: The key to student engagement. *International journal of Education and Learning*, *5*(1), 13-22.

Consider, R. W. L. (2017). An interpretative phenomenological analysis of interview data: People on the renal waiting list consider deceased versus living donors.

Conway, M. W., Salon, D., da Silva, D. C., & Mirtich, L. (2020). How Will the COVID-19 Pandemic Affect the Future of Urban Life? Early Evidence from Highly-Educated Respondents in the United States. *Urban Science*, *4*(4), 50.

Cornell University Center for Teaching Excellence (2012).

Crenshaw, D. (2021). *The myth of multitasking: How "doing it all" gets nothing done*. Mango Media Inc.

Darling-Hammond, L. (2000). Teacher quality and student achievement. *Education policy analysis archives*, *8*, 1.

DeBerard, M. S., Spielmans, G., & Julka, D. (2004). Predictors of academic achievement and retention among college freshmen: A longitudinal study. *College student journal*, *38*(1), 66-80.

Deci, E.L. and Ryan, R.M. (1985), Intrinsic Motivation and Self-determination in Human Behavior, Plenum, New York, NY.

Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian psychology/Psychologie canadienne*, *49*(3), 182.

Dilworth, M. E. (1991). *Motivation, Rewards, and Incentives. Trends and Issues Paper No. 3*. ERIC CLearinghouse on Teacher Education, One Dupont Circle, NW, Suite 610, Washington, DC 20036-2412.

d'Entremont, A. (2018). Being a C-student is the new normal: a literature review on grades, self-worth, and mental wellbeing. *Proceedings of the Canadian Engineering Education Association (CEEA)*.

Detert, J. R., Seashore Louis, K., & Schroeder, R. G. (2001). A culture framework for education: Defining quality values and their impact in US high schools. *School effectiveness and school improvement*, *12*(2), 183-212.

Dunn, A. H. (2018). Leaving a profession after it's left you: Teachers' public resignation letters as resistance amidst neoliberalism. *Teachers College Record*, *120*(9), 1-34.

Dussault, R., & Erasmus, G. (1996). Report of the royal commission on aboriginal peoples.

Dweck, C. (2015). Carol Dweck revisits the growth mindset. *Education Week*, *35*(5), 20-24.

Dwyer, S. C., & Buckle, J. L. (2009). The space between: On being an insider-outsider in qualitative research. *International journal of qualitative methods*, *8*(1), 54-63.

Eatough, V., & Smith, J. A. (2008). Interpretative phenomenological analysis. *The Sage handbook of qualitative research in psychology*, *179*, 194.

Edwards, W. L. (2017). Reflecting on Modern Public-School Teacher Experience: An Overview of Select Challenges Facing the Educator Workforce with an Emphasis on Teachers of Color. *Texas Education Review; Vol. 5, Issue 2*.

Engels, M. C., Colpin, H., Van Leeuwen, K., Bijttebier, P., Van Den Noortgate, W., Claes, S., ... & Verschueren, K. (2016). Behavioral engagement, peer status, and teacher–student relationships in adolescence: A longitudinal study on reciprocal influences. *Journal of youth and adolescence*, *45*(6), 1192-1207.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, *5*(1), 1-4.

Evangelou, M., Taggart, B., Sylva, K., Melhuish, E., Sammons, P., & Siraj-Blatchford, I. (2008). What makes a successful transition from primary to secondary school?

Evans, N., & Collier, L. (2019). An exploration of the experience of using calendar reminders for people with dementia and family carers. *Dementia*, *18*(5), 1912-1933.

Ewing, D. L., Monsen, J. J., & Kielblock, S. (2018). Teachers' attitudes towards inclusive education: a critical review of published questionnaires. *Educational Psychology in Practice*, *34*(2), 150-165.

Fanelli, D. (2010). "Positive" results increase down the hierarchy of the sciences. *PloS one*, *5*(4), e10068.

Froese-Germain, B. (2014). Work-Life Balance and the Canadian Teaching Profession. *Canadian Teachers' Federation*.

Fu, H., Hopper, T., & Sanford, K. (2018). New BC curriculum and communicating student learning in an age of assessment for learning. *Alberta Journal of Educational Research*, *64*(3), 264-286.

Gacoin, A. (2018). The Politics of Curriculum Making: Understanding the Possibilities for and Limitations to a" Teacher-Led" Curriculum in British Columbia. BCTF Research Report. *British Columbia Teachers' Federation*.

Gacoin, A. (2020). The Landscape of Inclusion: How Teachers in British Columbia Navigate Inclusive Education Policy and Practice. BCTF Research Report. *British Columbia Teachers' Federation*.

Gale, T., & Parker, S. (2014). Navigating change: a typology of student transition in higher education. *Studies in Higher Education*, *39*(5), 734-753.

Ganqa, N. H., & Masha, R. K. (2020). Higher Education Institutions as space and context for student identity formation and transformation: Implications for First Year Experience.

Gehlbach, H., Brinkworth, M. E., & Harris, A. D. (2012). Changes in teacher–student relationships. *British journal of educational psychology*, *82*(4), 690-704.

Geiser, S., & Santelices, M. V. (2007). Validity of high-school grades in predicting student success beyond the freshman year: High-school record vs. standardized tests as indicators of four-year college outcomes.

Gershenson, S. (2016). Linking teacher quality, student attendance, and student achievement. *Education Finance and Policy*, *11*(2), 125-149.

Giordano, J., O'Reilly, M., Taylor, H., & Dogra, N. (2007). Confidentiality and autonomy: The challenge (s) of offering research participants a choice of disclosing their identity. *Qualitative health research*, *17*(2), 264-275.

Giroux, S. (2019). *"LIKE BEING PECKED TO DEATH BY A CHICKEN" RESILIENCE AND WORK-FAMILY EQUILIBRIUM IN TEACHER/MOTHERS* (Doctoral dissertation, UNIVERSITY OF NORTHERN BRITISH COLUMBIA).

Glaser, B., & Strauss, A. (1967). The discovery of grounded theory Aldine Publishing Company. *Hawthorne, New York*.

Government of British Columbia (2019). *BC's Graduation Program.* Retrieved from: https://curriculum.gov.bc.ca/graduation

Greenwald, R., Hedges, L. V., & Laine, R. D. (1996). The effect of school resources on student achievement. *Review of educational research*, *66*(3), 361-396.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research*, *2*(163-194), 105.

Hadjistavropoulos, T., & Smythe, W. E. (2001). Elements of risk in qualitative research. *Ethics & Behavior*, *11*(2), 163-174.

Halbert, J., & Kaser, L. (2013). *Spirals of inquiry: For equity and quality*. BC Principals'& Vice-Principals' Association.

Halai, A. (2006). Ethics in qualitative research: Issues and challenges.

Heggart, K. R., & Yoo, J. (2018). Getting the most from google classroom: A pedagogical framework for tertiary educators. *Australian Journal of Teacher Education*, *43*(3), 9.

Heidegger, M. (1962). Being and Time. Oxford: Blackwell.

Hoffman, J. L., & Lowitzki, K. E. (2005). Predicting college success with high school grades and test scores: Limitations for minority students. *The Review of Higher Education*, *28*(4), 455-474.

Hoffman, M., Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating "sense of belonging" in first-year college students. *Journal of College Student Retention: Research, Theory & Practice*, *4*(3), 227-256.

Hogg, M. A., & Williams, K. D. (2000). From I to we: Social identity and the collective self. *Group dynamics: Theory, research, and practice*, *4*(1), 81.

Holdsworth, S., Turner, M., & Scott-Young, C. M. (2018). … Not drowning, waving. Resilience and university: a student perspective. *Studies in higher education*, *43*(11), 1837-1853.

Holliman, A., Hulme, J., & Wilson-Smith, K. (2019). Transition and adaptability in educational and organizational contexts. *Psychology Teaching Review*, *25*(1), 4-11.

How are we doing? Report. First Nations Education Steering Committee FNESC. (2022, February 11). Retrieved February 12, 2022, from http://www.fnesc.ca/how-are-we-doing-report/

How to keep your offer of admission - UBC: Undergraduate Programs and admissions. UBC. (n.d.). Retrieved November 21, 2021, from https://you.ubc.ca/applying-ubc/admitted/keep-offer/.

Hunter, M. S. (2006). Fostering student learning and success through first-year programs. *Peer Review*, *8*(3).

Hurtado, S., & Carter, D. F. (1997). Effects of college transition and perceptions of the campus racial climate on Latino college students' sense of belonging. *Sociology of education*, 324-345.

Hutchinson, S. A. (1986). Education and grounded theory. *Journal of Thought*, 50-68.

Hutchinson, S. A., Wilson, M. E., & Wilson, H. S. (1994). Benefits of participating in research interviews. *Image: The Journal of Nursing Scholarship*, *26*(2), 161-166.

Hyndman, B. (2018). Ten reasons why teachers can struggle to use technology in the classroom. *Science Education News*, *67*(4), 41.

Iftakhar, S. (2016). Google classroom: what works and how. *Journal of Education and Social Sciences*, *3*(1), 12-18.

Iwamoto, D. H., Hargis, J., Bordner, R., & Chandler, P. I. (2017). Self-Regulated Learning as a Critical Attribute for Successful Teaching and Learning. *International Journal for the Scholarship of Teaching and Learning*, *11*(2), n2.

Jansen, E. P., & Suhre, C. J. (2010). The effect of secondary school study skills preparation on first‐year university achievement. *Educational studies*, *36*(5), 569-580.

Jensen, J. L. (2011). Higher Education Faculty versus High School Teacher: Does Pedagogical Preparation Make a Difference?. *Bioscene: Journal of College Biology Teaching*, *37*(2), 30-36.

Johnson, S. M., Berg, J. H., & Donaldson, M. L. (2005). *Who stays in teaching and why?: A review of the literature on teacher retention*. Project on the Next Generation of Teachers, Harvard Graduate School of Education.

Johnson, B. (2008). Teacher–student relationships which promote resilience at school: A micro-level analysis of students' views. *British Journal of Guidance & Counselling*, *36*(4), 385-398.

Jones, J., & Smith, J. (2017). Ethnography: challenges and opportunities.

Jorgenson, D. A., Farrell, L. C., Fudge, J. L., & Pritchard, A. (2018). College connectedness: The student perspective. *Journal of the Scholarship of Teaching and Learning*, *18*(1), 75-95.

Kahu, E. R., & Nelson, K. (2018). Student engagement in the educational interface: understanding the mechanisms of student success. *Higher education research & development*, *37*(1), 58-71.

Kaiser, K. (2009). Protecting respondent confidentiality in qualitative research. *Qualitative health research*, *19*(11), 1632-1641.

Kazempour, M. (2009). Impact of inquiry-based professional development on core conceptions and teaching practices: A case study. *Science Educator*, *18*(2), 56-68.

Keiler, L. S. (2018). Teachers' roles and identities in student-centered classrooms. *International journal of STEM education*, *5*(1), 1-20.

Kember, D., Leung, D., & Prosser, M. (2021). Has the open door become a revolving door? The impact on attrition of moving from elite to mass higher education. *Studies in Higher Education*, *46*(2), 258-269.

Keys, C. W., & Bryan, L. A. (2001). Co‐constructing inquiry‐based science with teachers: Essential research for lasting reform. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, *38*(6), 631-645.

Killam, L. (2013). *Research terminology simplified: Paradigms, axiology, ontology, epistemology and methodology*. Laura Killam.

Kimbark, K., Peters, M. L., & Richardson, T. (2017). Effectiveness of the student success course on persistence, retention, academic achievement, and student engagement. *Community College Journal of Research and Practice*, *41*(2), 124-138.

Klimova, B. (2019). Impact of mobile learning on students' achievement results. *Education Sciences*, *9*(2), 90.

King, S. A., Lemons, C. J., & Hill, D. R. (2012). Response to intervention in secondary schools: Considerations for administrators. *NASSP Bulletin*, *96*(1), 5-22.

Klapp, A. (2018). Does academic and social self-concept and motivation explain the effect of grading on students' achievement?. *European Journal of Psychology of Education*, *33*(2), 355-376.

Knaack, L. (2017). 5 Key Changes in BC's New K-12 Curriculum: What are the Implications for Post-Secondary? [Web log post]. Retrieved from https://wordpress.viu.ca/ciel/files/2017/12/5-Key-Changes-in-BC-Handout-Liesel-Knaack.pdf

Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational review*, *53*(1), 27-35.

Langenkamp, A. G. (2010). Academic vulnerability and resilience during the transition to high school: The role of social relationships and district context. *Sociology of Education*, *83*(1), 1-19.

Larrivee, B. (2000). Transforming teaching practice: Becoming the critically reflective teacher. *Reflective practice*, *1*(3), 293-307.

Larkin, M., Watts, S., & Clifton, E. (2006). Giving voice and making sense in interpretative phenomenological analysis. *Qualitative research in psychology*, *3*(2), 102-120.

Larose, S., & Boivin, M. (1998). Attachment to parents, social support expectations, and socioemotional adjustment during the high school-college transition. *Journal of research on Adolescence*, *8*(1), 1-27.

Lawrence, J. (2003). The'deficit-discourse'shift: university teachers and their role in helping first year students persevere and succeed in the new university culture. In *6th Pacific Rim First Year in Higher Education Conference Proceedings: Changing Agendas' Te Ao Hurihuri'*. Queensland University of Technology.

Lawson, A., Benford, R., Bloom, I., & Carlson, M. (2002). Evaluating college science and mathematics instruction. *Journal of College Science Teaching*, *31*(6), 388.

Lawson, A. P. (2019). Not all flipped classes are the same: Using learning science to design flipped classrooms. *Journal of the Scholarship of Teaching and Learning*, *19*(5), 77-104.

Lee, V. E., & Smith, J. B. (1997). High school size: Which works best and for whom?. *Educational evaluation and policy analysis*, *19*(3), 205-227.

Leese, M. (2010). Bridging the gap: Supporting student transitions into higher education. *Journal of further and Higher Education*, *34*(2), 239-251.

Lei, H., Cui, Y., & Zhou, W. (2018). Relationships between student engagement and academic achievement: A meta-analysis. *Social Behavior and Personality: an international journal*, *46*(3), 517-528.

Lenear, B. C., & Slate, J. R. (2019). School size and school climate among Texas middle school students as a function of programmatic labels. *Journal of Multidisciplinary Graduate Research*, *1*(1).

Levers, M. J. D. (2013). Philosophical paradigms, grounded theory, and perspectives on emergence. *Sage Open*, *3*(4).

Levitz, R. S., Noel, L., & Richter, B. J. (1999). Strategic moves for retention success. *New directions for higher education*, *1999*(108), 31-49.

Lewis, G. M. (2014). Implementing a reform-oriented pedagogy: Challenges for novice secondary mathematics teachers. *Mathematics Education Research Journal*, *26*(2), 399-419.

Liebenberg, L., Theron, L., Sanders, J., Munford, R., Van Rensburg, A., Rothmann, S., & Ungar, M. (2016). Bolstering resilience through teacher-student interaction: Lessons for school psychologists. *School Psychology International*, *37*(2), 140-154.

Linnenluecke, M. K., Marrone, M., & Singh, A. K. (2020). Conducting systematic literature reviews and bibliometric analyses. *Australian Journal of Management*, *45*(2), 175-194.

Lopez, K. A., & Willis, D. G. (2004). Descriptive versus interpretive phenomenology: Their contributions to nursing knowledge. *Qualitative health research*, *14*(5), 726-735.

Lortie, D. C. (1975). Schoolteacher (2nd ed.). Chicago, IL: The University of Chicago Press.

Louie, V. (2007). Who makes the transition to college? Why we should care, what we know, and what we need to do. *Teachers College Record*, *109*(10), 2222-2251.

Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child development*, *71*(3), 543-562.

MacDonald, M., & Hill, C. (2021). The educational impact of the Covid-19 rapid response on teachers, students, and families: Insights from British Columbia, Canada. *Prospects*, 1-15.

Macfarlane, B., & Tomlinson, M. (2017). Critiques of student engagement. *Higher Education Policy*, *30*(1), 5-21.

MacNeil, A. J., Prater, D. L., & Busch, S. (2009). The effects of school culture and climate on student achievement. *International Journal of leadership in Education*, *12*(1), 73-84.

Martin, F., & Bolliger, D. U. (2018). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning*, *22*(1), 205-222.

Martin, A. J., & Collie, R. J. (2019). Teacher–student relationships and students' engagement in high school: Does the number of negative and positive relationships with teachers matter?. *Journal of Educational Psychology*, *111*(5), 861.

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American psychologist*, *56*(3), 227.

Matua, G. A., & Van Der Wal, D. M. (2015). Differentiating between descriptive and interpretive phenomenological research approaches. *Nurse researcher*, *22*(6).

McIntyre, L. L., Eckert, T. L., Fiese, B. H., DiGennaro, F. D., & Wildenger, L. K. (2007). Transition to kindergarten: Family experiences and involvement. *Early Childhood Education Journal*, *35*(1), 83-88.

McKenzie, K., & Schweitzer, R. (2001). Who succeeds at university? Factors predicting academic performance in first year Australian university students. *Higher education research & development*, *20*(1), 21-33.

McKeown, S., Vedan, A., Mack, K., Jacknife, S., & Tolmie, C. (2018). Indigenous Educational Pathways: Access, Mobility, and Persistence in the BC Post-Secondary System. *British Columbia Council on Admissions and Transfer*.

Meehan, C., & Howells, K. (2018). 'What really matters to freshers?': evaluation of first year student experience of transition into university. *Journal of Further and Higher Education*, *42*(7), 893-907.

Mega, C., Ronconi, L., & De Beni, R. (2014). What makes a good student? How emotions, self-regulated learning, and motivation contribute to academic achievement. *Journal of educational psychology*, *106*(1), 121.

Merriam, S. B., Johnson-Bailey, J., Lee, M. Y., Kee, Y., Ntseane, G., & Muhamad, M. (2001). Power and positionality: Negotiating insider/outsider status within and across cultures. *International Journal of Lifelong Education*, *20*(5), 405-416.

Ministry of Education. (2020, October 8). *Certificates of Graduation*. Province of British Columbia. https://www2.gov.bc.ca/gov/content/education-training/k-12/support/graduation.

Mizell, J. M. (2019). *The Effects of Small Learning Communities on College and Career Ready Performance Index* (Doctoral dissertation, Walden University).

Money, J., Nixon, S., & Graham, L. (2020). Do educational experiences in school prepare students for university? A teachers' perspective. *Journal of Further and Higher Education*, *44*(4), 554-567.

Moore, S. (2017). *One without the other: Stories of unity through diversity and inclusion* (Vol. 1). Portage & Main Press.

Morgan-Trimmer, S., & Wood, F. (2016). Ethnographic methods for process evaluations of complex health behaviour interventions. *Trials*, *17*(1), 1-11.

Moriah, M. P. (2018). Giving voice to headteachers using interpretative phenomenological analysis-IPA: Learning from a Caribbean experience. *Management in Education*, *32*(1), 6-12.

Morrison, G. M., & Allen, M. R. (2007). Promoting student resilience in school contexts. Theory into Practice, 46(2), 162-169.

Muller, C. (2001). The role of caring in the teacher‐student relationship for at‐risk students. *Sociological inquiry*, *71*(2), 241-255.

Murtagh, L. (2010). They give us homework! Transition to higher education: the case of initial teacher training. *Journal of Further and Higher Education*, *34*(3), 405-418.

Naylor, C., & White, M. (2010). The worklife of BC teachers in 2009. *BCTF Research*.

Ngubane, S. (2013). The socio-cultural and linguistic implications of Zulu names. *South African Journal of African Languages*, *33*(2), 165-172.

Nora, A. (2004). The role of habitus and cultural capital in choosing a college, transitioning from high school to higher education, and persisting in college among minority and nonminority students. *Journal of Hispanic higher education*, *3*(2), 180-208.

Noyens, D., Donche, V., Coertjens, L., Van Daal, T., & Van Petegem, P. (2019). The directional links between students' academic motivation and social integration during the first year of higher education. *European Journal of Psychology of Education*, *34*(1), 67-86.

Nye, B., Konstantopoulos, S., & Hedges, L. V. (2004). How large are teacher effects? Educational Evaluation and Policy Analysis, 26(3), 237–257.

Ohlson, M., Swanson, A., Adams-Manning, A., & Byrd, A. (2016). A Culture of Success--Examining School Culture and Student Outcomes via a Performance Framework. *Journal of Education and Learning*, *5*(1), 114-127.

Ostafichuk, P. M., Jaeger, C. P., Golsteyn, Q., & Nesbit, S. (2019). PILOT OF A SERIES OF ONLINE RESOURCES TO HELP STUDENTS TRANSITION TO FIRST YEAR ENGINEERING. *Proceedings of the Canadian Engineering Education Association (CEEA)*.

Páramo Fernández, M. F., Araújo, A. M., Tinajero-Vacas, C., Almeida, L. S., & Rodríguez-González, M. S. (2017). Predictors of students' adjustment during the transition to university in Spain.

Park, L. E., Crocker, J., & Kiefer, A. K. (2007). Contingencies of self-worth, academic failure, and goal pursuit. *Personality and Social Psychology Bulletin*, *33*(11), 1503-1517.

Parker, J. D., Summerfeldt, L. J., Hogan, M. J., & Majeski, S. A. (2004). Emotional intelligence and academic success: Examining the transition from high school to university. *Personality and individual differences*, *36*(1), 163-172.

Pedler, M., Yeigh, T., & Hudson, S. (2020). The Teachers' Role in Student Engagement: A Review. *Australian Journal of Teacher Education*, *45*(3), 48-62.

Peterson, E. R., Rubie-Davies, C. M., Elley-Brown, M. J., Widdowson, D. A., Dixon, R. S., & Irving, S. E. (2011). Who is to blame? Students, teachers and parents views on who is responsible for student achievement. *Research in Education*, *86*(1), 1-12.

Pfund, C., Miller, S., Brenner, K., Bruns, P., Chang, A., Ebert-May, D., ... & Handelsman, J. (2009). Summer institute to improve university science teaching. *Science*, *324*(5926), 470-471.

Pianta, R. C., Hamre, B. K., & Allen, J. P. (2012). Teacher-student relationships and engagement: Conceptualizing, measuring, and improving the capacity of classroom interactions. In *Handbook of research on student engagement* (pp. 365-386). Springer, Boston, MA.

Pietkiewicz, I., & Smith, J. A. (2014). A practical guide to using interpretative phenomenological analysis in qualitative research psychology. *Psychological journal*, *20*(1), 7-14.

Pittman, L. D., & Richmond, A. (2008). University belonging, friendship quality, and psychological adjustment during the transition to college. *The Journal of Experimental Education*, *76*(4), 343-362.

Pooley, J. A., & Cohen, L. (2010). Resilience: A definition in context. *Australian Community Psychologist*, *22*(1), 30-37.

Pownall, M., Harris, R., & Blundell-Birtill, P. (2021). Supporting students during the transition to university in COVID-19: 5 key considerations and recommendations.

Price, J. (2010). The effect of instructor race and gender on student persistence in STEM fields. *Economics of Education Review*, *29*(6), 901-910.

Priestley, M., & Sinnema, C. (2014). Downgraded curriculum? An analysis of knowledge in new curricula in Scotland and New Zealand. *Curriculum Journal*, *25*(1), 50-75.

Qhobela, M. (2012). Using Argumentation as a Strategy of Promotion of Talking Science in a Physics Classroom: What Are Some of the Challenges?. *Online Submission*.

Ragnedda, M. (2018). Conceptualizing digital capital. *Telematics and Informatics*, *35*(8), 2366-2375.

Rata, E. (2012). *The politics of knowledge in education*. Routledge.

Ratelle, C. F., Simard, K., & Guay, F. (2013). University students' subjective well-being: The role of autonomy support from parents, friends, and the romantic partner. *Journal of Happiness Studies*, *14*(3), 893-910.

Reiners, G. M. (2012). Understanding the differences between Husserl's (descriptive) and Heidegger's (interpretive) phenomenological research. *Journal of Nursing & Care*, *1*(5), 1-3.

Reiter, S., Stewart, G., & Bruce, C. S. (2011). A strategy for delayed research method selection: Deciding between grounded theory and phenomenology. *Electronic Journal of Business Research Methods*, *9*(1), 35-46.

Reporting on student learning in the classroom: Govtogetherbc. govTogetherBC |. (2021, November 5). Retrieved November 21, 2021, from https://engage.gov.bc.ca/govtogetherbc/consultation/studentreporting/.

Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica*, *73*(2), 417-458.

Robinson, O. C. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative research in psychology*, *11*(1), 25-41.

Rockoff, J. E. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *American economic review*, *94*(2), 247-252.

Rodriquez, N. N., DiSanto, J., Varelas, A., Brennan, S., Wolfe, K., & Ialongo, E. (2017). Building Understanding of High School Students' Transition to College. *International Journal of Teaching and Learning in Higher Education*, *29*(2), 402-411.

Romine, P. G., & Quattlebaum, R. F. (1976). The Achievement Motivation Scale revisited: A cross-validation study. *Educational and Psychological Measurement*, *36*(4), 1069-1073.

Roorda, D. L., Jorgensen, T. D., & Koomen, H. M. (2019). Different teachers, different relationships? Student-teacher relationships and engagement in secondary education. *Learning and Individual Differences*, *75*, 101761.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, *25*(1), 54-67.

Sadler, P. M., & Tai, R. H. (2001). Success in introductory college physics: The role of high school preparation. *Science Education*, *85*(2), 111-136.

Santillana, M., Sraubhaar, J., Schrubbe, A., Choi, J., & Strover, S. (2020). Digital inequalities: Homework gap and techno-capital in Austin, Texas. *First Monday*.

Santos, A. (2012). Considerations for education reform in British Columbia. *Canadian Journal of Educational Administration and Policy*, (138).

Schilling, T. A. (2008). An examination of resilience processes in context: The case of Tasha. *The Urban Review*, *40*(3), 296-316.

Schmitt, S. A., Geldhof, G. J., Purpura, D. J., Duncan, R., & McClelland, M. M. (2017). Examining the relations between executive function, math, and literacy during the transition to kindergarten: a multi-analytic approach. *Journal of Educational Psychology*, *109*(8), 1120.

Shaharanee, I. N. M., Jamil, J. M., & Rodzi, S. S. M. (2016). The application of Google Classroom as a tool for teaching and learning. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, *8*(10), 5-8.

Shernoff, D. J., Csikszentmihalyi, M., Schneider, B., & Shernoff, E. S. (2014). Student engagement in high school classrooms from the perspective of flow theory. In *Applications of flow in human development and education* (pp. 475-494). Springer, Dordrecht.

Shinebourne, P. (2011). The Theoretical Underpinnings of Interpretative Phenomenological Analysis (IPA). *Existential Analysis: Journal of the Society for Existential Analysis*, *22*(1).

Sieber, J. E. (1993). Planning ethically responsible research: A guide for students and internal review boards. *Ethics*.

Sinnema, C., Nieveen, N., & Priestley, M. (2020). Successful futures, successful curriculum: What can Wales learn from international curriculum reforms?. *The Curriculum Journal*, *31*(2), 181-201.

Sithole, A., Chiyaka, E. T., McCarthy, P., Mupinga, D. M., Bucklein, B. K., & Kibirige, J. (2017). Student Attraction, Persistence and Retention in STEM Programs: Successes and Continuing Challenges. *Higher Education Studies*, *7*(1), 46-59.

Skinner, E., Furrer, C., Marchand, G., & Kindermann, T. (2008). Engagement and disaffection in the classroom: Part of a larger motivational dynamic?. *Journal of educational psychology*, *100*(4), 765.

Skinner, E., Graham, J. P., Brule, H., Rickert, N., & Kindermann, T. (2020). "I get knocked down but I get up again": Integrative frameworks for studying the development of motivational resilience in school. *International Journal of Behavioral Development*, 0165025420924122.

Smart, J. C. (Ed.). (2008). *Higher education: Handbook of theory and research* (Vol. 23). Springer Science & Business Media.

Smith, J. S., Akos, P., Lim, S., & Wiley, S. (2008). Student and stakeholder perceptions of the transition to high school. *The High School Journal*, 32-42.

Smith, J. A., Flowers, P., & Larkin, M. (2009). Interpretative phenomenological analysis: Theory, method and research.

Smith, J. A., & Osborn, M. (2003). Interpretative phenomenological analysis. In J. A. Smith (Ed.), Qualitative psychology: A practical guide to research methods (pp. 51–80). London: Sage.

Smith, J. A., & Shinebourne, P. (2012). *Interpretative phenomenological analysis*. American Psychological Association.

Smythe, W. E., & Murray, M. J. (2000). Owning the story: Ethical considerations in narrative research. *Ethics & behavior*, *10*(4), 311-336.

Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on college students' mental health in the United States: Interview survey study. *Journal of medical internet research*, *22*(9), e21279.

Stephens, J. O. (2018). *Student transition into kindergarten: A case study of the Reggio Emilia Approach*. Liberty University.

Suddaby, R. (2006). From the editors: What grounded theory is not.

Tabuenca, B., Greller, W., & Verpoorten, D. (2021). Mind the gap: smoothing the transition to higher education fostering time management skills. *Universal Access in the Information Society*, 1-13.

Tajfel, H. (1978). Social categorization, social identity and social comparison. *Differentiation between social group*, 61-76.

Tamim, S. R., & Grant, M. M. (2013). Definitiuses: Case study of teachers implementing project-based learning. *Interdisciplinary Journal of problem-based learning*, *7*(2), 3.

Tarmizi, S. S. A., Mutalib, S., Hamid, N. H. A., & Rahman, S. A. (2019). A review on student attrition in higher education using big data analytics and data mining techniques. *International Journal of Modern Education and Computer ence*, *11*(8), 1-14.

Taylor, C. A., & Harris-Evans, J. (2018). Reconceptualising transition to higher education with Deleuze and Guattari. *Studies in Higher Education*, *43*(7), 1254-1267.

Thornberg, R., Perhamus, L., & Charmaz, K. (2014). Grounded theory. *Handbook of research methods in early childhood education: Research methodologies*, *1*, 405-439.

Tierney, W. G. (Ed.). (1991). *Culture and ideology in higher education: Advancing a critical agenda*. Praeger Publishers.

Tight, M. (2020). Student retention and engagement in higher education. *Journal of further and Higher Education*, *44*(5), 689-704.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of educational research*, *45*(1), 89-125.

Tinto, V. (2000). Taking student retention seriously: Rethinking the first year of college. *NACADA journal*, *19*(2), 5-10.

Tinto, V. (2003). Learning better together: The impact of learning communities on student success. *Higher Education monograph series*, *1*(8), 1-8.

Tinto, V. (2006). Research and practice of student retention: What next?. *Journal of College Student Retention: Research, Theory & Practice*, *8*(1), 1-19.

Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research and applications*, *5*, 147-158.

Towns, S. (2018). A sense of belonging: Why it matters for successful transition into secondary school. *Australian Educational Leader*, *40*(2), 43-45.

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence‐informed management knowledge by means of systematic review. *British journal of management*, *14*(3), 207-222.

Trautwein, C., & Bosse, E. (2017). The first year in higher education—critical requirements from the student perspective. *Higher education*, *73*(3), 371-387.

Turner, K. L., Hughes, M., & Presland, K. (2020). Learning loss, a potential challenge for transition to undergraduate study following COVID19 school disruption. *Journal of Chemical Education*, *97*(9), 3346-3352.

Turner, J. C., & Reynolds, K. J. (2011). Self-categorization theory. *Handbook of theories in social psychology*, *2*(1), 399-417.

Ucak, E. (2019). "Science Teaching and Science Teachers" from Students' Point of View. *International Journal of Educational Methodology*, *5*(2), 221-233.

Vancouver Island University. (2019). Retrieved August 18, 2019, from https://www.viu.ca/

Van Herpen, S. G., Meeuwisse, M., Hofman, W. A., & Severiens, S. E. (2019). A head start in higher education: the effect of a transition intervention on interaction, sense of belonging, and academic performance. *Studies in Higher Education*, 1-16.

Vincent, J. (2016). Transition from secondary to higher education: an evaluation of a pre-entry transition programme for students on the autistic spectrum. *The Journal of Inclusive Practice in further and higher education*, *7*, 53-63.

Vizek Vidović, V., & Domović, V. (2019). Development of teachers' beliefs as a core component of their professional identity in initial teacher education: A longitudinal perspective. *Center for Educational Policy Studies Journal*, *9*(2), 119-138.

Wang, X., Hegde, S., Son, C., Keller, B., Smith, A., & Sasangohar, F. (2020). Investigating mental health of US college students during the COVID-19 pandemic: Cross-sectional survey study. *Journal of medical Internet research*, *22*(9), e22817.

Washor, E., & Mojkowski, C. (2007). What Do You Mean by Rigor?. *Educational Leadership*, *64*(4), 84-87.

Watson, J., Nind, M., Humphris, D., & Borthwick, A. (2009). Strange new world: applying a Bourdieuian lens to understanding early student experiences in higher education. *British Journal of Sociology of Education*, *30*(6), 665-681.

Weatherton, M., Schussler, E. E. (2021). Success for All? A Call to Re-examine How Student Success Is Defined in Higher Education. *CBE—Life Sciences Education*, *20*(1), es3.

Webster, J., & Watson, R. T. (2002). Analyzing the past to prepare for the future: Writing a literature review. *MIS quarterly*, xiii-xxiii.

Weiss, C. C., & Bearman, P. S. (2007). Fresh starts: Reinvestigating the effects of the transition to high school on student outcomes. *American Journal of Education*, *113*(3), 395-421.

Welchons, L. W., & McIntyre, L. L. (2017). The transition to kindergarten: Predicting socio-behavioral outcomes for children with and without disabilities. *Early Childhood Education Journal*, *45*(1), 83-93.

Weisskirch, R. S. (2018). Grit, self-esteem, learning strategies and attitudes and estimated and achieved course grades among college students. *Current Psychology*, *37*(1), 21-27.

West, W. (2013). Making methodological choice in qualitative counselling research. *Counselling Psychology Review*, *28*(3), 66-72.

Wiliam, D. (2011). What is assessment for learning?. Studies in educational evaluation, 37(1), 3-14.

Wintre, M. G., & Yaffe, M. (2000). First-year students' adjustment to university life as a function of relationships with parents. *Journal of adolescent research*, *15*(1), 9-37.

Wolf-Wendel, L., Ward, K., & Kinzie, J. (2009). A tangled web of terms: The overlap and unique contribution of involvement, engagement, and integration to understanding college student success. *Journal of College Student Development*, *50*(4), 407-428.

Wyse, S. A., & Soneral, P. A. (2018). "Is This Class Hard?" Defining and Analyzing Academic Rigor from a Learner's Perspective. *CBE—Life Sciences Education*, *17*(4), ar59.

Young, M. (2008). From constructivism to realism in the sociology of the curriculum. *Review of research in education*, *32*(1), 1-28.

CHAPTER 8: APPENDICES

Appendix 1: Ethics Approval Letter

Appendix 2: Consent Form

Appendix 3: Participant Information Sheet

Appendix 4: Email to Participants

Appendix 5: Interview Schedule (first interview August 4th, 2020)

8.1 Appendix 1: Ethics Approval Letter

UNIVERSITY OF LIVERPOOL | ONLINE PROGRAMMES

Dear Shelley Gvojich

I am pleased to inform you that the EdD. Virtual Programme Research Ethics Committee (VPREC) has approved your application for ethical approval for your study. Details and conditions of the approval can be found below.

Sub-Committee:	EdD. Virtual Programme Research Ethics Committee (VPREC)
Review type:	Expedited
PI:	Shelley Gvojich
School:	Lifelong Learning
Title:	The Lived Experiences of Grade 12 Teachers Preparing Students for Higher Education.
First Reviewer:	Dr. Viola Manokore
Second Reviewer:	Dr. Yota Dimitriadi
Other members of the Committee	Chair. Dr. Lucilla Crosta, Dr. Yota Dimitriadi, Dr. Pauline Armsby
Date of Approval:	July 20, 2020

The application was APPROVED subject to the following conditions:

Conditions		
1	Mandatory	M: All serious adverse events must be reported to the VPREC within 24 hours of their occurrence, via the EdD Thesis Primary Supervisor.

This approval applies for the duration of the research. If it is proposed to extend the duration of the study as specified in the application form, the Sub-Committee should be notified. If it is proposed to make an amendment to the research, you should notify the Sub-Committee by following the Notice of Amendment procedure outlined at http://www.liv.ac.uk/media/livacuk/researchethics/notice%20of%20amendment.doc.

Where your research includes elements that are not conducted in the UK, approval to proceed is further conditional upon a thorough risk assessment of the site and local permission to carry out the research, including, where such a body exists, local research ethics committee approval. No documentation of local permission is required (a) if the researcher will simply be asking organizations to distribute research invitations on the researcher's behalf, or (b) if the researcher is using only public means to identify/contact participants. When medical, educational, or business records are analysed or used to identify potential research participants, the site needs to

normally has access to that data to perform his or her job).

Please note that the approval to proceed depends also on research proposal approval.

Kind regards,

Dr. Lucilla Crosta

(EdD. VPREC Chair)

8.2 Appendix 2: Consent Form

UNIVERSITY OF LIVERPOOL

PARTICIPANT CONSENT FORM

Title of Research Project: Exploring the Lived Experiences of Grade Twelve Teachers Preparing Students for Higher Education.

Researcher: Shelley Gvojich

	Please initial box
1. I confirm that I have read and have understood the Participant Information Sheet dated [July, 2020] for the above study. I have had the opportunity to consider the information, ask questions, and have had these answered satisfactorily.	☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time (until data analysis begins) without giving any reason, without my rights being affected.	☐
3. I understand that, under the Data Protection Act, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish.	☐
4. I agree to take part in the above study.	☐

Participant Name	Date	Signature
Name of Person taking consent	Date	Signature
Shelley Gvojich	Jul 2020	Shelley Gvojich
Researcher	Date	Signature

The contact details of lead Researcher (Principal Investigator) are:

Shelley Gvojich
[redacted]

1

[1]
[SG]

8.3 Appendix 3: Participant Information Sheet

UNIVERSITY OF LIVERPOOL

Participant Information Sheet

Title of Study

Exploring the Lived Experiences of Grade 12 Teachers Preparing Students for Higher Education.

Version Number and Date

Version 3, July 2020

I am currently completing my Doctorate of Education through the University of Liverpool. This is completely separate from my work in the [redacted] Public School District as a District Learning Coordinator. You are being invited to participate in a research study looking at the lived experiences of high school teachers as they prepare students for higher education. Before you decide whether or not you would like to participate, you need to review the following information about why this research is being conducted and what it will entail. After you have read this document, please feel free to ask for further details or clarification. You are also free to discuss this opportunity with others, and you are in no way obliged to accept this invitation. You should only agree to take part in this study if you want to. You should receive this Participant Information Sheet (PIS) at least one week before the interview is scheduled to begin. Thank you for your time.

Purpose of the Study

The primary focus of this study is the role high school teachers believe that they play in the successful transition of secondary students to institutions of higher education. I am interested in looking at the values and perceptions among high school educators in terms of their beliefs about the role they play in supporting transitions to higher education.

I want to undertake research that examines the transition from high school to higher education from the science teacher's perspective, as it is not fully understood. I am also interested in exploring the different experiences of faculty at the high school level in terms of their role in preparing students for the transition. The most important aspect of this study is to understand the hitherto undiscovered lived experiences of some high school teachers who prepare students to transition to higher education as a major portion of their role. My hope is that gaining a greater understanding of the perceived experiences of teachers, especially in terms of their capacity to prepare students for successful transition, will facilitate a greater understanding of what is needed moving forward to improve successful student transition.

Why Am I Being Asked to Take Part?

This study is centred on teachers' experiences of preparing students for higher education. You are being asked to participate because you are a teacher of a grade 12 science or math class with

	interview transcriptions and notes) will be stored in a locked file cabinet.
How will my data be stored?	Data will be stored only on password-protected devices. No hard copies of information will be used or stored.
How long will my data be stored for?	Original data will be stored until the analysis stage where it will be anonymized. Anonymized data will be kept as long as necessary for the purpose of supporting or validating the project's observations, findings or outputs, which will be at least 10 years. There are no plans to make the transcripts available for future analysis by other researchers outside of this research. If such a request were received, your consent for this would be sought and you have the right to decide at that stage.
What measures are in place to protect the security and confidentiality of my data?	Data will only be stored on a password protected device. As soon as data has been analyzed it will be anonymized.
Will my data be anonymized?	While I, the researcher, will know who you are and be able to recognize you in the findings, no one else in the research will be able to do this and I will not let people outside of the research know who has and who has not taken part in this research. As soon as interviews have been transcribed and interpreted, all identifying information (such as gender, name, school, subjects taught, and years of service) will be removed and replaced with codes (such as participant A or a gender-neutral pseudonym that would not be associated with a specific ethnic or cultural community). Broad information about the group of participants, including range and mean

	years of service, number of participants and list of all subjects taught will be presented, but this information will not be associated with any participant or described per participant, to protect your identity.). You will have until one week after your interview is completed to withdraw your participation and associated comments.
How will my data be used?	Data will be used to describe the lived experiences of teachers preparing grade 12 students for the transition to higher education. This will be written up in a dissertation, as partial completion of a Doctorate in Education, and may be used in reports for our district and also in academic and professional journal articles. At no point in this dissemination will individuals be identifiable.
Who will have access to my data?	Raw data will only be available to me and my research supervisors. At no point will your name, school or identity be disclosed, even to supervisors. Both supervisors are international, not based in Canada, so would have no way of identifying you.
Will my data be archived for use in other research projects in the future?	Data will be archived for ten years. Participants will be contacted if data is to be used for future research purposes. You will be informed of your identification name/code, so that you can see how your data are interpreted Knowing your code will enable you to opt-in or out of any future data use at that time.

How will my data be destroyed?	Data will be removed permanently from the password-protected device that it was stored on. All recordings will be destroyed by deletion from the recording device and storage platform as soon as transcription is complete and has been checked. This is to ensure that your voice cannot be recognized.

Are There Any Risks in Taking Part?

The risks of participating in this study are centred on the distress that may occur because of the time that is required to participate and the reflection process of looking at your own practice. While the topic of the interview is professional and not personal in nature, it is possible that some people may become upset. If you should experience any discomfort or disadvantage as part of the research, let the researcher know immediately. Interviews will be paused or stopped and you will be guided to support as appropriate.

Who will benefit from this research?

Participants in this study may find benefits to their own practice by discussing what they already do to help students prepare for transitioning to higher education. Individual teachers and the district as a whole will benefit from the completed study in that there will be a greater understanding of how teachers feel they prepare students. This will allow professional learning to be tailored to staff needs, which ultimately benefit the learners in the system.

Consent to transport data into the European Union (EU)?

As this research is being conducted as the final component of the EdD program at the University of Liverpool, anonymized data will need to be stored on the University drive (which is outside of Canada). Only data that has been transcribed with all identifying information removed will be transported to the EU. Consent for this transfer of anonymized data is required for participation in this study.

What will happen to the results of the study?

All results will be made available to participants after the study has been completed. The final thesis will be published in the University of Liverpool Library. Participants will be informed, in writing, if results are going to be published elsewhere. Participants will not be identifiable from the results unless they have consented to be so.

What will happen if I want to stop taking part?

If you wish to withdraw from the study, please inform the researcher by email or phone. Participants are free to withdraw participation or associated comments until one week after the interview is completed, without explanation, and without incurring a disadvantage. There will be no consequence or penalty for withdrawing from the study.

Contact Details

- **My contact details are:**

  Shelley Gvojich
  [redacted]
  Canada

- **The contact details of the Research Participant Advocate at the University of Liverpool are**:
  001-612-312-1210 (USA number)
  Email address liverpoolethics@ohecampus.com

- **The contact details of my immediate supervisor are:**

  Dr. Bethan Collins
  Bethan.Collins@liverpool.ac.uk

Please keep/print a copy of the Participant Information Sheet for your reference. Please contact me and/or the Research Participant Advocate at the University of Liverpool with any questions or concerns you may have.

Shelley Gvojich	Jul 2020	Shelley Gvojich
Researcher	Date	Signature

8.4 Appendix 4: Email to Participants

Hello,

Do you support year 12 students to prepare for higher education?

My name is Shelley Gvojich and I am a Learning Coordinator in the Nanaimo-Ladysmith Public School District. Outside of my professional role, I am currently completing my Doctorate in Education through the University of Liverpool. As a part of this program, I am required to complete a doctoral thesis that requires conducting research.

I am interested in looking at the lived experiences of Grade 12 science and math teachers in NLPS in terms of how they prepare secondary students for the transition to higher education. For the purpose of this study, I will be conducting interviews that will take approximately an hour to complete. Participation in this study is completely voluntary, and you may withdraw (participation or associated comments) until one week after the interview. Please see the attached participant information sheet and consent form for more details. If you are interested in participating in this research opportunity, please respond to this email or contact me by phone. I will then ask some basic demographic information, such as which subjects you teach and how long you have been a teacher. If more people choose to participate than I can interview, I will need to select people, so contacting me neither commits you to participating nor ensures that I will be able to interview you. I am hoping to conduct interviews between August 3rd and 14th, though I can make other dates work if you are unavailable during these times. All interviews will occur via an online platform (likely Zoom or Microsoft Teams). If you decide to participate, a link for the meeting will be emailed to you. You will also need to complete and return the consent form.

Please do not hesitate to contact me with any further questions or concerns.

Thanks kindly,

Shelley Gvojich

8.5 Appendix 5: Interview Schedule

1. Verbal consent for recording

Are you ok with this interview being recorded?

Verbal Consent was obtained from the study participant

Verbal Consent was NOT obtained from the study participant

2. Verbal Consent for the interview

Have you had access to all of the information that you need before we begin?

Do you have any questions?

Have you had all of your questions answered?

Would you like to participate in this interview?

Verbal Consent was obtained from the study participant

Verbal Consent was NOT obtained from the study participant

3. Background information

Name:

Participant Code:

M/F/X:

School:

Subject Area (s)/grades taught:

Number of years teaching:

Age:

4. Qualitative interview introduction

Primary Goal: the purpose of this interview and this study is to explore the lived experiences of grade 12 teachers as they prepare students for the transition to higher education

5. Overview Questions

Could you briefly tell me about yourself, your background, and your experience as a teacher?

Potential follow up questions:

- How would you describe your teaching style?
- What is your philosophy of education/student learning?

6. The transition to higher education

How many of the students in the course you teach go on to some sort of further (HE) training?

What do you think high school students "need" to be successful in higher education/university?

Potential follow up questions:Why do you think some students struggle with the transition to higher education? What are the things you think students struggle with when they get to University?

- What do you think could be done (during high school) to make the transition to HE easier on students?
- What challenges/barriers have you experienced in trying to help support students? What are the challenges with having students leave high school prepared to excel in HE?
- What have been your enablers (in other words what has helped and worked well)? What have you found to be helpful in having students leaving your class ready to successfully transition to higher education? How do you know/why do you think this?
- Are there any policies or procedures that exist (or perhaps should exist) to help support grade 12 students as they transition to higher education?

Can you describe **your** experience with supporting grade 12 students as they transition to higher education?

Potential follow up questions:

- What do you believe a teacher's role is in preparing students for higher education?

- What is the student's role?

What influences your approach?

Do you do the same things year after year?

- When you change, what do you change and why?
- How do you know if you need to make changes?
- Do you teach junior science and math courses? Do you teach your grade 12 courses the same way? Why or why not?

Did COVID-19 and the move to online/remote/hybrid learning have any impact on your experience preparing grade 12 students for higher education? If so, describe this impact.

Do you have anything more to tell me to help me understand your experience supporting students into Higher Education?