

A Study of Student Engagement in Two Urban Secondary Schools

by

Steven McDonald Cardwell

M.A., University of British Columbia, 1988
B.Sc., University of British Columbia, 1979

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Approval

Name: Steven McDonald Cardwell
Degree: Doctor of Education
Title of Thesis: *A Study of Student Engagement in Two Urban Secondary Schools*

Examining Committee:

Chair: Dr. David Kaufman, Professor

Dr. Milton McClaren, Professor Emeritus
Senior Supervisor

Dr. Robin Brayne, Adjunct Professor
Co-Supervisor

Dr. Geoffrey Madoc-Jones, Senior Lecturer
Committee Member

Dr. Daniel Laitsch, Associate Professor
Internal Examiner

Dr. Donald Krug, Professor
Curriculum and Pedagogy, Faculty of Education
University of British Columbia
External Examiner

Date Defended/Approved: July 25, 2012

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Abstract

This study explored the construct of student engagement in secondary schools from students' perspectives. While Canadian high school students perform exceptionally well on international achievement measures, there is a growing concern that some students, even though they may complete high school requirements and graduate, are not challenged, and are not fully engaged in their learning, possibly resulting in undeveloped skills and talent, unrealized potential and lost opportunities. The study was designed to determine factors that contribute to student engagement within the culture of schools. This was accomplished through a study of practice in two high schools in an urban school district. The study was positioned to hear from students using a Canadian survey: *What Did You Do in School Today?* and group interviews. The concept of Flow as described by Csíkszentmihályi (1990) was examined as a potentially useful way to compare and describe students' varying levels of engagement and sense of being instructionally challenged.

The survey results showed that the responses of less than 50% of the students who participated indicated intellectual engagement with school. Many attend school for social reasons or simply participate in school to satisfy formal requirements. The interview results suggested that there is a need to listen to students, include a more personalized, broad range of authentic, multi-disciplinary learning experiences, and provide appropriate teacher training and resources to enhance approaches to instruction and assessment. These measures could foster a culture in which more adolescents engaged with and felt a sense of belonging in school.

Keywords: Student engagement; student voice; flow; high school; climate

Dedication

To my Dad, Dr. David McDonald Cardwell—so many things I wanted to say...

Does not wisdom call out?
Does not understanding raise her voice?
You, who are simple, gain prudence;
You, who are foolish, gain understanding.
Choose my instruction instead of silver,
Knowledge rather than choice gold,
For wisdom is more precious than rubies,
And nothing you desire can be compared with her.
I, wisdom, dwell together with prudence;
I possess knowledge and discretion.
Counsel and sound judgment are mine;
I have understanding and power.

(Proverbs 8)

Don't aim at success—the more you aim at it and make it a target, the more you are going to miss it. For success, like happiness, cannot be pursued; it must ensue...as the unintended side effect of one's personal dedication to a course greater than oneself.

(Viktor Frankl, 1959, *Man's Search for Meaning*)

The Road Not Taken

I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I—
I took the one less travelled by,
And that has made all the difference.
(Robert Frost, 1916, *Mountain Interval*)

...and constantly striving to emulate your wisdom and success.

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My appreciation also goes to my colleagues in my world of work who have encouraged, cajoled and pushed me all along. My best wishes go to others who are part way along this arduous, but fulfilling, long and winding road. May you persevere and enjoy success at the end of the day.

My final and most important note of indebtedness goes to my immediate family—Maryann, Stephanie and Andrew—and Mum. These are the people who would wonder why on so many occasions life had to take a back seat. It was hard for them at times to understand why visits to the island, to the beach, vacations, or simple walks to the park were put on hold so that I could work. I will now, at last, rededicate and recommit my time to my family.

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List of Acronyms

| | |
|---------|---|
| AP | Advanced Placement |
| CCL | Canadian Council on Learning |
| CEA | Canadian Education Association |
| GPA | Grade-point average |
| OECD | Organization for Economic Cooperation and Development |
| PE | Physical Education |
| PISA | Programme for International Student Assessment |
| SES | socio-economic status |
| SREL | Southeast Regional Educational Laboratory |
| TTFM | Tell Them From Me |
| WDYDIST | What Did You Do in School Today? |
| NRC | National Research Council |

1. Introduction

1.1. Background and Personal Context

I think it's just depends like what kind of student you are. I mean here it's like I basically just come to school to come to school, it's not like, a lot of the classes, like when you're taking Math and Science, unless you're actually interested in that type of stuff or you're really good with numbers, I mean you find it pretty difficult and you don't really want to go to class, but you have to go because you need it to graduate. It's not like you really want to be there whereas if you're, if you're artistic and then you like go into like Graphics or Art class or Film and Video whatever it is, and you're most likely to get a good grade in that class, than going to one that you don't enjoy. And teachers again are a big part of that. (Milly, Grade 12)

I was led to this study through my background and interest in secondary education. Having worked as an educator for over 32 years in four school districts and at various levels in the system, as well as having taught university courses in teacher training during at least six of those years, I have developed a strong belief that our current system of schooling, particularly for young adolescents in high schools is not working. In particular, I am concerned that students do not seem to be fully engaged in their schooling. Furthermore, I believe that lack of student engagement contributes to apathy, boredom and disinterest in school and may even lead to school dropout.

I was the sole researcher in this investigation. Until recently, I held a significant senior administrative position with almost 20 years of experience in supporting staff and students within the Fraserview School District,¹ which was the research site. My position and relationship with school and district personnel provided me with a greater ease of access. I approached the study as an educator, leader, researcher, and decision-maker with a deep interest in adolescent learners and the factors that contribute to their success. I have a strong belief in the importance of listening to students as expressed in the purpose of this study. I was hopeful that by peeling the layers back, as an onion, I might contribute to a greater understanding about the adolescent learner, what constitutes their engagement in learning and, indeed, the nature of their secondary

¹ Fraserview School District is a pseudonym for an urban school district in British Columbia.

school experiences. Through this approach, I hoped that the study might ultimately suggest pathways that might lead to the improvement of student engagement with schooling.

1.2. Importance of the Study

There is considerable evidence to support claims that the current system of education may not be working for many students (Abbott & MacTaggart, 2010; Chen, 2010; Hannon, 2008; Hargreaves, 2007, 2008; Jordan, 2010; Lankinen, 2010; Mourshed, Chijioke, & Barber, 2010; Naylor, 2011; Richards, 2011; Williams, 2010; Willms, Friesen, & Milton, 2009). The claim that at least some and perhaps a considerable number of students are not engaged with schooling can be found in frequent truancy and apparent lack of care about assignments, tests or homework. Unengaged students are equally unsuccessful in core academic programs or applied courses. They appear to have withdrawn from the learning process both mentally and physically. Students who do not graduate from high school and do not go on to post secondary education may place a greater burden on society. The research described here was designed to explore student engagement with high school with an emphasis on understanding the sources and challenges to engagement from the students' perspectives.

Research studies indicate that in 1990 to 1991, about 16.7% of 20- to 24-year-olds in Canada had not obtained a high school graduation diploma and were not enrolled in school. By 2009-2010, about 8.5% of 20- to 24-year-olds had not obtained their high school graduation diploma. While these figures indicate improvement over the past 20 years, the results seem to have reached a plateau ranging between 9.7% and 8.5% of student cohorts. These percentages equate to an average of 203,486 Canadians per year who have not received a high school diploma. Further, about 19.6% of Canadians aged 15 to 19 were not enrolled in an educational program in 2009 to 2010. This figure compares to about 15.4% of 15- to 19-year-olds for Organization for Economic Cooperation and Development (OECD) countries (Bowlby & McMullen, 2002; Gilmore, 2010; OECD, 2010, C3.2a; Statistics Canada, 2010).

It is not to be expected that all students who enter school in Canada at age 5 will graduate with a regular high school diploma 12 to 13 years later. For a variety of reasons, some students cannot meet normal graduation requirements and may complete on modified programs. Others, also for a variety of reasons, will leave school before graduation. Some may later return to education and complete requirements as adults or enter colleges as mature students. This study was not designed to inquire into all these scenarios or to conduct a longitudinal study of the lives of students who drop out. The focus of this study was on how the students in the sample

group who were currently enrolled in high school programs viewed their learning experiences and their engagement with schooling.

Problems of poor achievement, student boredom, high dropout rates and disaffection with school have pointed teachers, researchers and policy makers to pay greater attention to student engagement (Fredricks, Blumenfeld, & Paris, 2004). In a report to the Ontario Ministry of Education, Ferguson, Tilleczek, Boydell, and Anneke Rummens recommended that the education system “be more understanding, be more flexible, and be more proactive in reaching out to youth, families, and communities” (p. 44). This report further suggested that those in the education system need to listen to the voices of students, include a wide variety of extra-curricular activities, broaden approaches to school structure, provide necessary and sufficient resources, encourage a school environment where adolescents feel that they *belong*, and take note of and build upon the hopes and aspirations of our youth.

In spite of the fact that Canadian high school students perform exceptionally well on international measures (Knighton, Brochu, & Gluszynski, 2010; OECD, 2010; Statistics Canada, 2006), there is concern among policy makers, educators, parents, and the general public that students are becoming less engaged in schooling (Abbott & MacTaggart, 2010; Chen, 2010; Hannon, 2008; Hargreaves, 2008; Jordan, 2010; Lankinen, 2010; Mourshed, Chijioke, & Barber, 2010; Naylor, 2011; Richards, 2011; Williams, 2010; Willms et al., 2009). As a result of this perceived lack of engagement, fewer students than possible are transitioning from one grade to the next and are dropping out of school. This is particularly true for boys, students from rural areas, and especially among Aboriginal students (British Columbia Ministry of Education, 2011; Gilmore, 2010; Richards, 2011; Statistics Canada, 2010). While poverty, concomitant social issues, and how resources are deployed may be contributing factors to dropping out, engagement in school prior to dropping out is of interest in this study. One hundred percent retention in school may not be possible, and might not be the best course for all students, understanding the factors which may lead to engagement in school in order to reduce disengagement and potential dropping out is an important aspect of this study. However, of equal concern is that students remaining in school may not be fully engaged in their learning and as a result, not realize their potential and miss opportunities. Central to my study, a recent national, What Did You Do in School Today? (WDYDIST; 2009) revealed that many students were not engaging with their schooling (Willms et al., 2009). The social and emotional well-being and overall economic costs to society of such disparities further suggest that this issue should be an area to explore and for which remedy should be sought (Willms et al., 2009, p. 7).

Leaving aside arguments about the possible economic costs of low school engagement and potential dropout, the importance of exploring the nature of student engagement with school can be argued by taking into consideration the role of schools in the development of the self and society for the common good as contemplated by Aristotle (as cited in Broadie & Rowe, 2002), Dewey (1916); Gardner, Csíkszentmihályi, and Damon (2001); Goodlad (1984); and Putnam and Weir (1925). The democratizing, enculturating, and socializing aspects of schooling; the teaching of critical, moral, and ethical thinking; and the attention to individual health and wellness are essential and many might say the most important aspects of school. Who are the students we graduate if they have not experienced the sheer enjoyment of learning, the opportunity to be engaged in their passions and interests and the challenge to do good work, each and every day. These aspects of schooling also significantly underlie the rationale for this thesis.

1.3. Approach and Research Questions

1.3.1. *Overview of the Study*

This was largely an empirical study of student engagement that considered how students viewed their school experiences and whether their descriptions of these experiences can lead to an understanding of the factors that affect engagement. Consistent with the work of Fielding (2001, 2007), Rudduck (2007) and Cushman (2010), I was interested in discovering students' views of their learning experiences in school. I therefore positioned this mixed methods study to hear directly from students using an existing widely used Canadian survey and through group interviews of students attending two urban high schools. The construct of student engagement from the students' perceptions was applied as the central focus for this study. The research process was designed to determine factors that contribute to student engagement within the culture of a school. The study was not intended to determine the rationale of those who have already dropped out of school and data was not collected from students' post-school dropout.

1.4. Research Questions

The central question of this study was to examine—from students' perspectives—what constitutes engagement in school. The research question was explored through several sub-questions, which were:

- What are students' views of when they learn best?
- Why do some students feel connected to school and others do not?
- Under what conditions are students engaged in school?
- Are students being instructionally challenged in their learning?
- What meanings do students have in terms of understanding the purpose, requirements, and importance of school?
- What are students' perspectives about success and their futures?

Based on the results of the student surveys and interviews, a further goal of the study was to assess whether or not the students' responses could be interpreted to indicate their engagement with school as the construct is defined in current research. Stated as a research question, this phase of the study asked: What do the student descriptions of their school experiences indicate about their perceived engagement with school and school-based learning experiences?

This study sought to add to the knowledge base of what is known about student engagement. My interest arose because through study and extensive experience, I have observed an apparent growing sense of discontent, disconnectedness and disengagement between secondary students and their schooling. Studies based on the OECD Programme for International Student Assessment (PISA; OECD, n.d.) results (Willms, 2003; Willms et al., 2009, p. 10) have found that about 20% to 25% of students in North America lack a strong sense of belonging as a dimension of social engagement at school. Feelings of detachment or disaffection with school were evident even among some students with strong academic performance. The concept of “flow” as theorized by Csíkszentmihályi (1990) as a potential motivating influence on student engagement was of interest in this study. This was examined through students' descriptions of their varying levels of engagement and the extent to which they were instructionally challenged in school.

This thesis was also designed to help clarify some of the processes of schooling that might contribute to engagement. It was intended to provide greater depth of understanding about how students perceive life at school. Fielding's (2001) work in the United Kingdom on “students

as researchers” (p. 123) and Cushman’s (2010) *Fires in the Mind* exemplify useful approaches in this regard because they relied directly on the voices of students describing issues viewed to be important in their daily experiences of school and proposed recommendations for change.

This study was not designed specifically to investigate school size effects on student engagement and so is limited in this respect. However, because the samples used in the student interviews were taken from the largest and smallest secondary schools in the district being studied, the possible influence of school population size was broadly considered in reviewing the research results. Students were asked to describe their views about the influence of school population size on their engagement in school.

1.5. The Construct of Student Engagement with School

Since this thesis was directed at studying student perceptions of their experience in school and at assessing the possible utility of the concept of engagement as a way of framing or understanding the students’ accounts, it is useful here to introduce in a preliminary way, some definitions of student engagement as found in current research and writing on the topic. I will revisit engagement in greater detail and depth in Chapter 2. However, my interests and preference for a student-centred approach led me to pursue the line of reasoning taken by Willms and others. Consequently, I rely on the definition of student engagement proposed by Willms et al. (2009):

(The) extent to which students identify with and value schooling outcomes, have a sense of belonging at school, participate in academic and non-academic activities, strive to meet the formal requirements of schooling, and make a serious personal investment in learning. (p. 7)

1.6. Philosophical Perspective

This is a mixed methods study involving both a quantitative survey and qualitative interview approach (Cresswell, 2003). In making a choice about the research pathway, the researcher makes certain philosophical assumptions (Creswell, 2007, pp. 17-19). A paradigm is a very general set of philosophical assumptions that define the nature of possible research and intervention. Paradigms can be distinguished in terms of philosophical dimensions (Mingers & Brocklesby, 1997). I accept the idea of multiple realities, which are subjective and differ as seen through the eyes of the various participants. In practical terms, the researcher captures these perspectives through observation and the descriptive language of the participants. The

epistemological stance that I assumed, in a collaborative way, was to be in the field as close as possible to the participants, thus becoming within the constraints of my role as a senior staff person, an “insider” in the setting to be studied. In an axiological sense, I positioned myself in the study and, in so doing, should report my values and biases, and admit to the value-laden attributes of data collected from the field. From a rhetorical stance, I used personal, literary, metaphorical and informal language styles in reporting the study. First-person pronouns are sometimes used along with terms such as credibility, dependability, understanding, meaning, discovery, and authentic (rather than validity, generalizability, and objectivity). The procedures or methodology of the qualitative aspect of my research are inductive and shaped by my own experiences in data collection and analysis.

My perspective is decidedly pragmatic. I relied on this orientation for the study. Pragmatism is not committed to any specific system of reality and philosophy. In this case, I was free to choose the methods, techniques, and procedures that best suited the purposes and needs of the research. Pragmatists believe that research occurs in many contexts: historical, political and social, and they do not see the world through one lens. In a similar way, mixed methods researchers look to many approaches for data collection and analysis within quantitative and qualitative traditions. Pragmatists look at the “what” and “how” to inquiry based on the intended outcomes.

Besides paradigmatic and general methodological factors, there are several pragmatic factors, which can influence the choice of research method. The pragmatic view includes the following eight dimensions: the researcher; the object of study—students in this study, for example; the research situation—secondary schools; the research goal; the research question; relevant audiences; conditions and circumstances; and the time-dimension (Smaling, 1994). My pragmatic worldview is solution-oriented and is consequential with practical applications; it involves an inquiry that is not committed to any one philosophy and has the freedom of choice for procedures that best meet the purpose of the study; it seeks answers to the ‘What’ and ‘How’ and is contextual (Cherryholmes, 1994; Patton, 2002; Tashakkori & Teddlie as cited in Creswell, 2007, p. 20).

1.7. Assumptions and Declarations

I am reminded of my daughter's admonishment to, "talk your normal talk, Dad"—implying that I am apt to step into "Character" when around peers and contemporaries. This concept is also not far from Vygotsky, Vygotsky, and Kozulin's (1986) notion of inner speech, which we all speak (p. 235). One's moral self is defined and shaped by the unique constellation of background and experiences (Nash, 2002, p. 61) and contributes to how a researcher approaches a problem. As a member of the senior school district staff, I was located in a position of influence, authority and responsibility. While not directly involved in the action, I was a 'player', obligated to contribute to an acceptable understanding of the topic (Kidder, 2003, p. 183). However, from the viewpoint of a student, the system takes on a very different form and appearance. It was this perspective that I tried to understand.

In discussing the "voices of conscience," Green (1985) has described the conscience as memory and further elaborated this memory to be "rootedness"—best explained through narrative and story. This is much more than a sentimental cry for what was—it is more so an indication of who I am as a member of a system. As a parent, district leader, long-term employee and member of the larger educational community, I needed to declare and acknowledge potential assumptions, perceptions and biases that may exist. As an observer in a private world, I honoured the trust extended to me by the parents and students through permission and consent to participate. An agreement established ahead of time was essential to the process and was respected at the conclusion. In this case, as an insider in the enterprise, I also had to consider my position as a supervisor and decision-maker. What impact would this approach have on the willingness and types of responses given by the student respondents? How would I utilize the results? Would the results of the study impact political agendas and cause difficulty in sharing my results? I was aware of these questions as the study unfolded and I needed to be cognizant about them after the study was completed. As Michael Fullan (2001) has argued:

Every leader, to be effective, must have and work on his or her moral purpose...
Moral purpose is about ends and means. In education, an important end is to
make a difference in the lives of students. But the means of getting to that end
are also crucial. (p. 13)

My decision to write in the first-person was "motivated less by arrogance and the need for self-revelation than by personal necessity" (Nash, 2002, p. 1). While Nash proposes that self-revelation is of lesser importance, I would elevate this need to be consistent with a 1-person narrative. Writing in the first-person is a necessity borne out of a need to examine personal

motivations rather than one of conceit and pretension (p. 1). Putting my own feelings “on the table” in a declarative sense was crucial to the legitimacy of this study and assisted in explicating the topic at hand. Researchers must declare themselves as integral members of the research story. Nash (2002) argued for this consideration through what he refers to as the First Moral Language of Background Beliefs, stating that, “each of us lives in what can be called a metaphysical life-space where we experience ethical dilemmas from a vantage point... our ethical centre of reference, our primary moral subtext” (p. 37). The purpose in acknowledging this “First Language” is to locate decisions, judgments and activity within personally held background beliefs. The researcher must characterize his or her perspectives based on background, experiences and upbringing. My training, experience, norms of practice and expectations of role shaped my approach. Nash referred to these as necessary attributes—part of my professional identity and membership that contribute to the eventual action (p.84). This language of “thick description” gives rise to how I was positioned as a researcher in the study and as a leader in the system.

Glesne (1999) has described two roles that the investigator plays in a qualitative study: “researcher as learner” and “researcher as investigator.” The learner role requires having a clear sense of self from the outset of the study. Acknowledging one’s own pre-dispositions assists the researcher in becoming a “curious student who comes to learn from and with research participants” (p. 41). The researcher must be a good listener, open to new thoughts and ways of understanding, and be willing to learn from the participants, and so must maintain open communications with the participants. Glesne (1999) suggested that one must recognize the investigator’s expertise, but also their “subjective relationship to the research topic” (p. 17).

In qualitative research, bias is not controlled in an attempt to keep it out of the study, but as Glesne (1999) stated:

When you monitor your subjectivity, you increase your awareness of the ways it might distort, but you also increase your awareness of its virtuous capacity. You learn more about your own values, attitudes, beliefs, interests, and needs. You learn that your subjectivity is the basis for the story that you are able to tell. It is the strength on which you build. It makes you who you are as a person and as a researcher, equipping you with the perspectives and insights that shape all that you do as researcher, from the selection of the topic clear through to the emphasis you make in your writing. (p. 109)

I am deeply concerned about the needs of the adolescent learner and have a strong interest in student engagement. I maintain a strong advocacy for system redesign and a move towards what is being collectively termed as “personalized learning in the 21st century” (British

Columbia Ministry of Education, 2012). I am also a proponent of smaller secondary schools. Therefore, I had to be constantly aware of this subjectivity and the potential for bias.

1.8. Organization of the Thesis

Chapter 1 provides a brief introduction to the study. Sections on the purpose, importance and implications of the study are followed by an outline of the research question and sub-questions and an overview of the research approach. I also offer a preliminary definition of the concept of student engagement, describe my philosophical perspective and indicate my assumptions and declarations.

Chapter 2 is intended to frame and delimit the study through a review of the relevant literature. The concept of engagement is introduced and narrowed to three perspectives about student engagement: traditional, social-democratic and student-centred. My literature review further explored student-centred engagement via three dimensions—social, academic and intellectual engagement. This section is then followed by a discussion of the relevant research into Csíkszentmihályi's (1990) concept of flow as a potential motivating influence on the development of engagement. Following the sections on engagement, recent research concerning the measurement of engagement is presented along with sections about success and the importance of engagement as it pertains to individual and societal outcomes of schooling. This chapter then delves into some of the potential factors for enabling the formation of engagement such as school climate, capacity, and school population size. A short review of the literature concerning two potentially helpful theoretical perspectives as potential antecedents to the development of engagement are also explored—the concept of social capital (Dika & Singh, 2002; Morrow, 2001) held by students, which may endear them to schooling and symbolic interactionism as meaning making (Atkins, 1998; Blumer, 1969; Charon, 1998).

Chapter 3 describes the research methods employed in this study. Following a brief outline of the mixed methods approach utilized, the nature of the research setting is described. The next section explains who participated in the study and how the survey of high school students was organized, conducted and coordinated. This section also provides detail on the group interview process, and the coding and analysis methods. The chapter ends with a discussion of the limitations of the study.

In reporting the results and summary of findings in Chapters 4 and 5 respectively, I have organized the chapter sections according to the research sub-questions. Within the research sub-

question framework, I then chose to organize the flow of the report by presenting the data for each dimension of the survey of high school students followed by emerging themes provided through the interview data.

In Chapter 4, I included the relevant survey questions along with graphs representing the survey data. Depending on the direction that the group interview took, my line of questioning varied. Following this, I provided some student responses excerpted from the interviews, which are exemplary of student opinion on the particular topic. The excerpts are representative of the voices of students from the two schools.

In Chapter 5, I created a synthesizing diagram that is intended to capture many of the elements, which might contribute to the formation of student engagement. I conclude with a discussion of the overall findings that transcend the data from the student surveys and the group interviews. This particular section considers learning experiences, teaching practices and the organization of school. I end the chapter with several recommendations, which are supported by and emanate from this study. These recommendations are organized into three themes directed at student learning experiences, teacher practices, support and development and the organizational requirements of school. Weaknesses of my study and opportunities for further research complete this chapter.

1.9. Summary

I'm completely wracked with indecision I have no idea. I could act I could sing
I could be homeless I could be a doctor, I really don't care and I have no idea.
So I'm trying to procrastinate and put off the decision until the last moment. I
want to go to university, but who knows, right, I'm just gonna kinda go with it.
(Charlie, Grade 11)

In this chapter, I have stated my perception that our current system of schooling, particularly for young adolescents in high school is not working. In beginning this study, I was concerned that students did not seem to be fully engaged in their schooling. Furthermore, my strong belief was that the lack of student engagement contributes to apathy, boredom and disinterest in school and may even lead to dropping out of school. I was also very interested in attending to meaningful student voice as an avenue into how to make schooling more meaningful for all learners. I have also described the purposes of the study, why I consider it to be important to study student engagement, and have provided an argument with regard to the social and economic implications of not attending to the problems of student engagement with school.

The specific research question in this study was to examine from students' perspectives what constitutes engagement in school. Through the use of a survey and semi-structured group interviews, I sought to find ways to improve school and district practices by providing a greater understanding of several key factors that contribute to student engagement. My overall intent was to address the growing concern to improve student success through greater student engagement. The question of whether engagement and related sense of belonging varies between smaller and larger schools was also considered. I have also provided several key reasons why policy makers, district and school staff and parents should be interested in the construct of student engagement.

Chapter 2, which follows, is intended to frame and delimit the study through a review of the relevant literature. The concept of engagement is introduced and narrowed to three perspectives about student engagement. My literature review further explored three dimensions of student-centred engagement and provides a review of Csíkszentmihályi's (1990) concept of flow as a potential motivating influence on the development of engagement. Considerations are given to the measurement of engagement along with sections about student success and the importance of engagement, school climate, school capacity, and school size. A review of two supporting theoretical perspectives, social capital and symbolic interactionism, concludes the chapter.

2. Review of Related Literature

I don't exactly want to go to school, for school, I want to go to school for basketball and I always have. But I don't feel like I've prepared myself to go to the States so I'm looking at a university like UBC or UVic and if I don't get into one of those then I'd probably just do my own thing, get a small job and surf California something like that. (Spencer, Grade 12)

2.1. Introduction

This chapter provides a comprehensive review of the literature with respect to student engagement along with a brief review of relevant literature on school climate, capacity, student success, and school population size. I also describe two theoretical perspectives that are useful in developing a model of how student engagement is influenced and nurtured in school settings. I have directed my attention to those writings and studies that develop the construct of engagement, in particular, student engagement and student views of schooling. It is delimited by time and space focussing primarily on studies conducted following the ground breaking work of John Goodlad's (1984) study, *A Place Called School: Prospects for the Future*, and largely restricted to student engagement in urban Canadian high schools from the students' perspective.

2.2. Delimiting the Study

ENGAGEMENT

1 a : an arrangement to meet or be present at a specified time and place... b : a job or period of employment...

2 : something that engages...

3 a : the act of engaging: the state of being engaged b : emotional involvement or commitment... c : betrothal

4 : the state of being in gear

5 : a hostile encounter between military forces

("Engagement," n.d.)

Engagement is a broad concept and as a result, is difficult to define. Taylor and Parsons (2011) indicated several categories or types of engagement including, academic, behavioural,

cognitive, emotional, institutional, intellectual, psychological, and social (p. 4). Therefore, for the purposes of my study, the construct of engagement requires delimitation.

2.2.1. *Delimiting the Study in Scope*

Employee Engagement

Kahn (1990) described engagement at work as the “harnessing of organization members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively and emotionally during role performances” (p. 694). Engagement may refer to a combination of the psychological state (such as commitment, attachment, involvement, or mood), performance (such as effort or observable behaviour), or disposition. The notion of engagement has more often been utilized in organizational management practices to depict the relationship between the employee and employer. In this context, various definitions arise from attitudinal and behavioural ideas about worker motivation implying satisfaction, attachment, dedication, passion, enthusiasm, involvement, commitment, focus, energy, and effort. Underlying this premise are the employees’ working conditions and the subsequent outcomes in terms of value to an organization’s effectiveness through productivity, worker retention, customer service, individual performance and financial performance (Heskett, Jones, Loveman, Sasser, & Schlesinger, 1994; Macey & Schneider, 2008, Scarlett, 2011).

Employee engagement has been described in the literature as a version of job satisfaction. A comprehensive report on public sector employee engagement commissioned by the Scottish Executive Social Research (Office of Chief Researcher, 2007) described an engaged workforce as having a focus on “motivation, satisfaction, commitment, finding meaning at work, pride and advocacy of the organization... (and) having some connection to the organization’s overall strategy and objectives—both wanting and being able to work to achieve them” (p. 1). This review also provided several very useful models of how worker engagement develops. While not the focus of my study, the relationship between employee engagement and student engagement is one, which should be studied in greater detail. For example, Harter, Schmidt, and Keyes (2003) drew a very useful parallel between employee engagement and student engagement and suggested that, “engagement is a basic human need mediating the relationship between the environment and performance” (p. 6). In a recent Canadian study, Heintzman and Marson (2005) identified a public sector service value chain to describe the links between employee engagement: satisfaction and commitment and service value: client satisfaction in the public sector, citizen trust and confidence. It is interesting to note that in both the private and public sectors, research into worker engagement is taking place. Similar to education, it is apparent from studies in those fields that there is a symbiotic connection between employee engagement and

customer or citizen satisfaction, indicating a mutually reinforcing relationship between these two elements. Research findings through a series of Work Environment Surveys indicated that, “organizations with highly engaged employees are more productive, retain more employees, and provide better service than other organizations do” (BCStats, 2010, p. 1). Furthermore, these organizations experienced less turnover and absenteeism. Building on similar findings, a recent survey and resulting model of public sector employee engagement in British Columbia related culture, environment and engagement (Adams & Matheson, 2009; Hawkins, Matheson, & Burley, 2009).

I believe that there is a strong connection between student engagement and employee engagement. However, while the study of engagement is pervasive through organizations, work place engagement and society, the study for this thesis is focused solely on the engagement of high school students in their learning. For the purposes of the research, I chose to focus more closely on those aspects of engagement that pertain to students’ experiences in high school versus the more broad concept of employee engagement.

Student Engagement

Researchers, Lee, Bryk, and Smith identified two measurements of student success: (a) achievement and (b) engagement (as cited in Brady, 2005, p. 302). They defined engagement as “such positive behavioural manifestations as participation, connection, attachment, and integration into the school setting and its educative tasks” (p. 301). My study does not delve directly into relationships between engagement and achievement.

The research reported here also does not delve into student characteristics and family background such as family structures and socio-economic status, although gender and grade level were considerations. Health and wellness outcomes including lifestyle behaviours, anxiety, depression and physical activity were also not considered in my study. Outside school activities such as reading or using the computer or gaming for leisure, watching television, having a part time job and volunteer work were also not considered, although questions pertaining to health and wellness and these areas were included in the national WDYDIST (2009) survey instrument used in this study (Willms et al., 2009). Similarly, academic achievement measures were not a focus of my research, although aspirations to graduate and pursue post secondary education were of interest as indicators of motivation for student success.

The primary purpose of my study was to determine from students’ perspectives what constitutes engagement in school. This focus on student engagement, while enjoying recent attention, has been an aspect of learning since the days of Plato and Aristotle leading up to

Rousseau and Dewey (Butler-Kisber, Smith, Vibert, & Donahue, 2003). My investigation considered the school and classroom environment including dimensions such as effective learning time, student/teacher relationships, disciplinary climate, teacher expectations for success, and the degree of instructional challenge.

2.2.2. Delimiting the Study in Time

This literature review is generally delimited in time to relatively recent work beginning with John Goodlad's (1984) classic work described in *A Place Called School: Prospects for the Future*. I returned to reading Goodlad later on in my thesis work and realized that his call for a renewed consideration of schooling coincided with much of my own thinking in this area. This extends to a recent 3-part blog post in the Washington Post (Strauss, 2010), in which Goodlad lamented the lack of real change over the past 50 years or more—even after decades of conclusions and recommendations from behavioural and social scientists and billions of dollars spent on boutique projects. Goodlad asked, "Is there any major field of endeavour other than schooling that has so little agency for its own mission, conduct and well-being?" He referenced the considerable difference between behaviour and action in citing Hannah Arendt (1958) from *The Human Condition*, where she suggested that, "to act takes courage, risks failure and often stirs contrary views and actions." Goodlad further concluded that there has been little change in schooling and pointed to Tyack and Cuban's (1997) book, *Tinkering with Utopia*, intimating that we continue at a "petty pace" to tinker with the system. Goodlad distinguished between the negative connotation of reform agendas that invoke accountability, things gone wrong, corrective actions and infer a demoralizing, dehumanizing element that "change(s) nothing fundamental, but tinker(s) ...with the grammar of schooling," and the more invigorating, ecological notions of system renewal associated with a multidimensional, collective responsibility. "The language and the ethos of renewal have to do with the people in and around schools improving their practice and developing the collaborative mechanisms necessary to better their schools" (Goodlad, 1999, p. 575). In *A Place Called School: Prospects for the Future*, Goodlad (1984) used the Greek term, *Paedeia*, in describing possible improvements to the schools we have and to suggest going beyond institutional frameworks to a place where "education is part of the fabric of society, interwoven with politics, religion, economics and family life—where, the community optimally educates. This educating is not merely instrumental to the attainment of goals, it is in itself a good" (p. 349). The term *Paedeia* is quite fitting in that it denotes a well-rounded, cultural education where people are educated into their true form through all forms of human endeavour and experience including such avenues as architecture, art, politics, and human psychology (Jaeger, 1945).

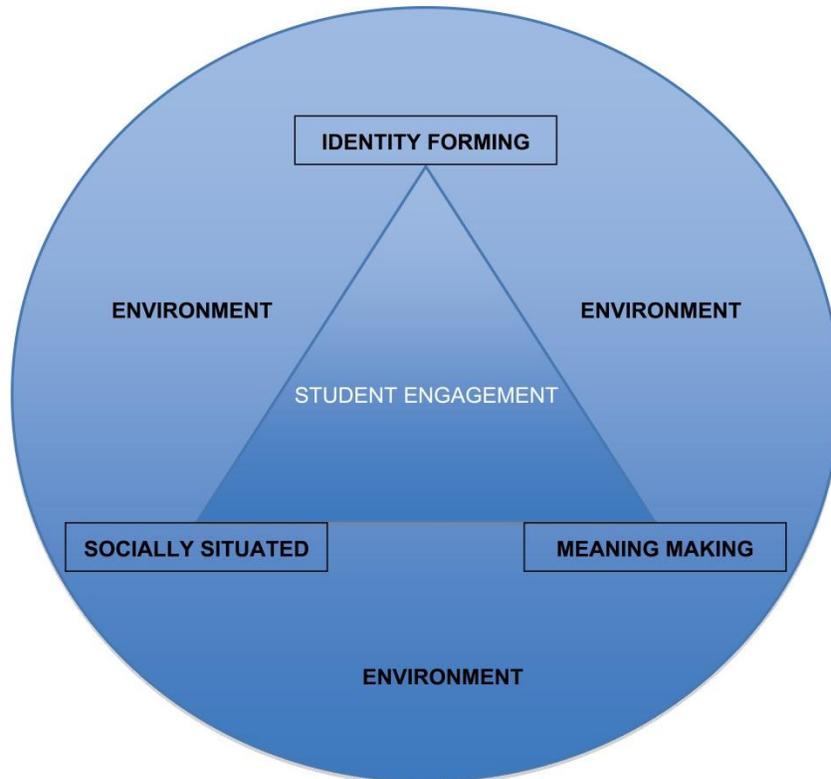
2.3. Framing the Study

Using a mixed methods approach, Brady (2005) examined the effect of Ontario high school culture on achievement and engagement outcomes. Brady's findings showed that the school culture had less influence on student achievement, but significant impact on student engagement, which he described as a consequence of being treated with respect, equality of disciplinary measures, belief that school encourages all to learn, comfort with the social structures in the school, and social milieu. In framing this study, and through my preliminary reading (Anderson, 1982, p. 405; Malen & Rice, 2004, p. 637; Pittman & Haughwout, 1987; Willms, 2003, 2007; Willms et al., 2009), I speculated that the development of engagement might be influenced by the interaction of identity forming, socially situated and meaning driven factors within a defined environment (Brown & Duguid, 2000). These factors might include culture: beliefs and values, climate, capital and the general social milieu: the people and groups within the setting. These conditions, which may give rise to engagement and perhaps contribute to overall success, may be encompassed through the relationships taking place among the participants in a particular setting. Social Capital as a component for describing engagement may serve the purpose and practicality of my study. Portes (1998) suggested that social capital is the "ability of actors to secure benefits by virtue of membership in social networks or other social structures" (p. 6). Coleman's (1997) work to describe social capital as "an intangible and abstract resource derived from interactions among individuals and social structures that frame them" (p. 51) or as he suggested, less tangible resources acquired through membership in a social network.

The source of meanings derived from the interactive experiences with others, how individuals and groups within the environment act toward these experiences and how these meanings are handled and interpreted may influence the development of student engagement. Meaning making and identity within a defined environment may be important components in the melange of school experiences. Other dimensions within the surrounding environment may also play a role in the development of how students are engaged in their schooling. For example, ecological factors such as school population size, the physical and material aspects of the school environment, and available tools and time could influence the setting and thus the level of engagement. Similarly, inputs such as program diversity, instruction, disciplinary climate, expectations, resources, and organizational structures may play a role.

As a result of my preliminary reading, I created a working diagram (Figure 1) to help delineate in a logistical and visual way the interactions among the various dimensions, which may contribute to student engagement.

Figure 1. Developing a Conceptual Framework for the Formation of Student Engagement



Note. Derived from Brown & Duguid, 2002.

2.4. Engagement in School

My review of the literature is primarily limited to research on student engagement conducted in a Canadian context. In their pan-Canadian case study of student engagement, Vibert and Shields (2003) researched 10 schools in five provinces representing a range of communities and ideologies. The goal of the study was to “describe how students engage in learning and school life” and “analyze context specific policies, practices, and conditions that facilitate student engagement within various contexts.” The authors cautioned against attributing causality to correlations of school characteristics with school effectiveness and overly narrow definitions of student engagement—“Engagement, separated from its social, cultural and political contexts, is a contradiction that ignores deeply embedded understandings about the purpose and nature of engagement itself” (p. 225), meaning and the social situation. Vibert and Shields (2003) utilized three analytical frames to organize the construct of student engagement: Rational-Technical, Critical-Transformative, and Interpretive-Student-centred (pp. 227-228). Similarly,

McMahon and Portelli (2004) categorized student engagement into Conservative-Traditional, Liberal-Student oriented, and Critical-Democratic. I have chosen to use these points of analysis to organize this section of my literature review.

- **Traditional.** Through my review of the literature, this seems to be the most common in the literature. Through this conservative, rational lens, schooling is a technical problem and engagement is an instrument to effectively address schooling, achieve good test scores, enable students to go to university, and get jobs.
- **Social-Democratic.** Through this critical, transformative lens, the social agenda, social justice, democracy, and matters of concern, sometimes controversial, are taken up.
- **Student-centred.** Through this liberal, interpretative concept of student engagement, choice and student autonomy is favoured. Students work on projects of interest. Education is one of discovery and personalization.

2.4.1. Traditional Concept of Student Engagement

Newmann, Wehlage, and Lamborn (1992) described student engagement as the “psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote” (p. 12). In the “Evaluation of the Manitoba School Improvement Program report,” Canadian researchers Earl and Lee (1998) discussed the challenges of measuring student engagement and drew on the work of Newmann and others, suggesting that engagement is “participation in academic work; interest in school; care in completing work; motivation to succeed; attitudes towards school; sense of membership in school; and student’s perception of a ‘real world’ connection to school” (p. 16). Earl further describes the conception of student engagement as students’ active involvement, commitment and concentrated attention to their own learning (p. 30).

Finn and Voelkl (1993) defined engagement in school in terms of a behavioural element (participation) and an emotional element (identification) (p. 249). Participation includes attendance, active participation in class, time spent on schoolwork, extra-curricular activity, and student-teacher interaction. Identification is an internalized sense of belonging in school. Without these elements, student achievement suffers, disruptive behaviours occur, and absenteeism, truancy, and dropping out follow. These outcomes are greater among minorities and lower SES families. The authors described two key school characteristics, which may promote student engagement: (a) Structural environment: school size and ethnic composition of the population; and (b) Regulatory environment: school procedures and discipline policies. In their study, the researchers found that the most consistent impact on student engagement was school size. Finn (1989) examined the notion that disengaged students do not achieve well regardless of SES. Finn’s study looked at participation in school and school-related activities as well as student

achievement. Findings indicated a positive relationship between participation and achievement. The author suggested that more attention should be paid to improving the success of marginal students. Nystrand and Gamoran (1989) researched procedural student engagement, which refers to school rules and regulations, and substantive kinds of student engagement, which refers to continued commitment to learning. Results of their study indicated that lack of engagement affects student achievement; procedural engagement has less impact on achievement than does substantive engagement; substantive engagement has a strong positive impact on achievement. Strong, Silver, and Robinson (1995) suggested a teacher-centric motivation-oriented approach to the concept of engagement that is driven by goals and needs and that teachers need to employ certain strategies to motivate students to achieve these goals. Through a 10-year study that examined factors contributing to low commitment and achievement levels among adolescents, Steinberg, Brown, and Dornbusch (1996) took a behavioural perspective that contemplated engagement as a necessary prerequisite to learning and describing engagement in terms of attending class, trying hard to do well, completing homework and not cheating (p. 15).

2.4.2. *Social-Democratic Concept of Student Engagement*

In his review of Ontario schools, Dei criticized the engagement research focus on the “pathology of dropouts” and proposed “inclusive schooling that integrates often conflicting knowledge and practices” (as quoted in Butler-Kisber et al., 2003, p. 209). Leithwood and Jantzi (1998, 1999) used survey data from 110 schools in a large urban Canadian school district to examine the effects of leadership activities on student engagement and organizational conditions. Their findings indicated strongly significant effects of transformational leadership on organizational conditions (timetable, length of class) and only moderately significant effects on student engagement suggesting that principal leadership and transformational leadership in general have little impact on student engagement. The authors suggested that variation when compared to other similar studies might be attributed to differences in school size, type of student outcomes, nature of the students, and departmental/subject area differences. Leithwood and Jantzi (1998, 1999) indicated significant variation in student engagement might further be explained by differences in family education as opposed to school related variables. This is an important consideration in the role of family and schools in co-influencing school outcomes. In defining student engagement, Canadian researcher Brenda McMahon utilized the definition of engagement proposed by Newmann et al. (1992) and suggested that, “Engagement stands for active involvement, commitment and concentrated attention, in contrast to superficial participation, apathy, or lack of interest” (McMahon as quoted in Butler-Kisber et al., 2003, p. 259). She approached student engagement from the perspective of student incongruence and dissonance with the values and practices of school and proposed a system that “celebrates and

facilitates individualism, diversity, autonomy and empowerment” (p. 266). Freire (1998) argued for the importance of teachers being engaged in learning and the interrelatedness of students’ responsibility for learning and the requirements of teaching (p. 89). Portelli and Vibert (2002) referred to the connections between students’ communities and the classroom and describe a “Curriculum of life” as a dynamic relationship among students, teachers, knowledge and contexts (p. 36). “Grounded in the immediate daily worlds of students as well as in the larger social and political contexts of their lives, curriculum of life breaks down the walls between the school and the world” (p. 38). McMahon and Portelli (2004) reviewed contemporary discourses about student engagement and called for more “focus on the relationship between the underlying goals and purposes of education in a democracy, and conceptions of engagement, teaching and learning” (p. 73). Others have viewed engagement on a continuum from positively engaged behaviours towards learning to negative, passive, disaffected, and bored actions with respect to learning (Connell, 1990, 1991; Skinner & Belmont, 1993).

2.4.3. *Student-centred Concept of Student Engagement*

In a study of student engagement in secondary schools following a large scale reform, Earl, Torrance, Sutherland, Fullan, and Ali reported (2003) that the voices of students need to be heard as part of the data gathering exercise around any school renewal initiative, and as a component of engagement, this becomes an important precursor of student success. Earl and colleagues also described the Manitoba School Improvement Program study, which found that student-teacher relationships are key aspects of engagement and learning (Earl et al., 2003).

Corbett (2007) addressed decision-making issues of youth in a rural Atlantic Canada community through a series of semi-structured interviews. He argued that the phenomenon of differing identity orientations to space, place and mobility could be partially attributed to Bourdieu’s (1997) concept of cultural capital (p. 47). Cultural capital exists in several forms: (a) The embodied state includes long-standing dispositions and habits acquired in the socialization process; (b) the objectified state is the accumulation of valued cultural goods such as books, art, sculptures; and (c) the institutional state referring to academic qualifications and training.

Canadian 15-year-old high school students ranked relatively poorly with regard to two measures of student engagement on the 2000 PISA assessment (Willms, 2003). Canadian students ranked 15th out of 41 countries with respect to having a sense of belonging in school and ranked 26th in level of participation in high school (Willms, 2003). According to the School Leavers Survey (Statistics Canada, 1991) and the Youth in Transition Survey (Bushnik, Barr-Telford, & Bussière, 2002) and most students drop out for school-related reasons, such as being

bored, or having problems with schoolwork or teachers. At the age of 15, most future dropouts were less socially and academically engaged than those who continued on and graduated. The disengaged students also believed that discipline was not handled equitably, that they were not respected, and that school was “not a friendly place to be” (p. 15). Results from an analysis by Bowlby and McMullen (2002) revealed a wide range of opinions between graduates and dropouts on several indicators of student engagement. The differential between males and females was also of interest. Table 1 illustrates these results.

Table 1. Percent indicators of High School Engagement for Graduates and Dropouts

| | Graduates | | | Dropouts | | |
|--|-----------|------|------|----------|------|------|
| | Total | M | F | Total | M | F |
| % Most or All of the Time: | | | | | | |
| I got along well with teachers. | 88.6 | 85.0 | 91.8 | 60.1 | 53.4 | 71.2 |
| I did as little work as possible; I just wanted to get by. | 14.9 | 20.8 | 9.4 | 34.5 | 39.6 | 26.0 |
| I paid attention to the teacher. | 82.1 | 76.8 | 87.0 | 60.1 | 54.8 | 68.6 |
| I was interested in what I was learning in class. | 60.4 | 54.8 | 65.7 | 43.6 | 38.3 | 52.2 |
| I felt like an outsider or like I was left out of things at school. | 3.5 | 3.7 | 3.3 | 14.2 | 13.5 | 15.1 |
| I completed my homework on time. | 80.4 | 74.0 | 86.3 | 48.1 | 39.7 | 61.5 |
| % Agree or Strongly Agree: | | | | | | |
| I thought that many of the things we were learning in class were useless. | 38.7 | 40.4 | 37.3 | 55.4 | 59.1 | 49.5 |
| I was treated with as much respect as other students in my class. | 91.7 | 91.5 | 92.0 | 74.4 | 76.5 | 71.0 |
| I had friends at school whom I could talk to about personal things. | 94.5 | 93.4 | 95.5 | 84.0 | 83.9 | 84.3 |
| I liked to participate in many school activities, for example clubs, sports, drama. | 62.1 | 61.8 | 62.5 | 37.8 | 41.4 | 32.0 |
| School was often a waste of time. | 13.2 | 16.6 | 10.0 | 36.3 | 39.8 | 30.4 |
| People at school were interested in what I had to say. | 90.5 | 89.9 | 91.0 | 78.8 | 80.3 | 76.4 |
| % 3 hours or Fewer: | | | | | | |
| How many hours each week did you spend on homework outside class, during free periods and at home? | 37.0 | 45.9 | 28.9 | 62.7 | 68.1 | 53.8 |

Note. Adapted from Bowlby & McMullen, 2002, p. 35.

In a Canadian Education Association (CEA) report on Canadian students, Willms and Flanagan (2007) argued that:

Student engagement is an important schooling outcome in its own right. It is a disposition towards learning, working with others and functioning in a social institution, which is expressed in students' feelings that they belong to school, and in their participation in school activities. (p. 47)

Willms (2007) further defined student engagement as a "measure of the extent to which students identify with and value schooling outcomes, and participate in academic and non-academic activities." It includes a disposition towards learning, future aspirations, working with others, and functioning in a social environment. The development of learner engagement leading to affective outcomes (sense of belonging, self-esteem, well-being, health) and academic outcomes is influenced by three components: (a) family SES, parenting style and practice, family structures; (b) student characteristics; and (c) the interactions among other members of the community, school, classroom and peer group and outside media influences. The sense of belonging at school pertains to students' "attachment to school, which has to do with feelings of being accepted and valued by their peers, and by others at their school" (Willms & Flanagan, 2007, p. 4). Students who lack this attachment are less likely to value schooling outcomes and are less likely to continue on to post secondary. Many students do not see the personal or economic value of schooling whereas others recognize the long-term benefits of school success. Future plans are influenced by students' views of their own abilities, home and school experiences, and the available opportunities. School participation is another aspect of student engagement. It includes class preparation, homework completion, attention to lessons, and involvement in extra-curricular opportunities.

Rooted in extensive surveys of students, Willms and Flanagan (2007) reported that up until about age 11, students generally have positive relationships with school staff and they feel a sense of belonging with school. However, as adolescence continues, some students start to feel disaffected with school, they skip classes, they don't complete homework, they do not participate in school activities, they get into trouble and their academic success begins to falter. Some of these students drop out of school. The authors revealed an interesting issue corroborating results from the earlier 2000 PISA study: Canadian 15-year-old high school students again ranked among the top participating countries in Literacy on the recent international assessment (OECD, 2010). However, the same students ranked fifteenth in students' sense of belonging and twenty-ninth in student participation. This study also measured elements of school climate, student-teacher relationships, expectations and disciplinary climates. Some provinces, such as British Columbia, and some school districts also collect data on school satisfaction and perceptions.

Although these may be somewhat limited in scope and rigour, these post facto, “trailing” indicators might be useful in looking ahead to improving practice.

A recent analysis of the literature by authors at the University of Alberta provided a summary of the key components for nurturing and enhancing successful, engaged classrooms (Taylor & Parsons, 2011). These five aspects are helpful in describing the necessary conditions for engaging students in their schooling. They are summarized below:

1. [Providing] learning experiences that are relevant, real, and intentionally interdisciplinary—at times moving learning from the classroom into the community.
2. [Employing] technology-rich learning environments—not just computers, but all types of technology, including scientific equipment, multi-media resources, industrial technology, and diverse forms of portable communication technology.
3. [Creating] positive, challenging, and open—sometimes called “transparent” learning climates—that encourage risk-taking and guide learners to reach co-articulated high expectations. Students are involved in assessment for learning and of learning.
4. [Collaborating through] respectful “peer-to-peer” type relationships between students and teachers (horizontal organization model); Professional Learning Communities working together to plan, research, develop, share, and implement new research, strategies, and materials.
5. [Developing] a culture of learning—teachers are learning with students. Language, activities and resources focus on learning and engagement first, and achievement second.

(p. 26)

2.4.4. *Dimensions of Student-centred Engagement*

At a student-led symposium sponsored by the CEA held in Vancouver, British Columbia in May 2006 called, “Schools We Want: Getting it Right for Adolescent Learners”, high school students from three regions across Canada voiced their opinions, desires and dreams with respect to the schools they wanted (Dunleavy & Milton, 2009, p. 10; Gould Lundy, 2006). Gould Lundy summarized the students’ comments from this conference as outlined in Table 2.

The results of the student conference provided very powerful indicators for me. The voices of the students featured in the CEA conference and captured in a video-recording (CEA, 2007) were strong determinants for me to pursue student engagement from the students’ perspective. Given this connection, I continued to follow the work of the CEA and the partnership that this organization held with “The Learning Bar” and Dr. Douglas Willms at the University of New Brunswick. Earlier in this chapter, I described three broad strands for conceptualizing student engagement (McMahon & Portelli, 2004). However, my interests and preference for a

student-centred approach led me to pursue the line of reasoning taken by Willms and others. Willms et al. (2009) described three dimensions of student engagement—social, academic and intellectual engagement. Each is an important and necessary component of an individual’s school experience. However, while not necessarily a bad thing, the relative strength of each may vary among individuals. These dimensions help frame my study of student engagement. Consequently, I rely on the definition of student engagement proposed by Willms et al. (2009):

[The] extent to which students identify with and value schooling outcomes, have a sense of belonging at school, participate in academic and non-academic activities, strive to meet the formal requirements of schooling, and make a serious personal investment in learning [emphasis added]. (p. 7)

Table 2. Summary of Student Comments from CEA Conference

Students called on teachers to:

- Offer interesting, open-ended, meaningful, relative and dynamic experiences where they could solve real world problems
- Allow them to engage in authentic learning in order to deal with issues that matter and that will help them make a difference in the world
- Access to experts and for greater dialogue, discussion and connection with other students and with their communities
- Get to know them as individuals and
- Understand their vulnerabilities and susceptibilities

Students felt that:

- There was a lack of equitable and stimulating opportunities for *all* students
- Schools should be places for experimentation and places that allow for mistakes
- They were overloaded and overwhelmed with homework and schoolwork
- Extra-curricular activities and the contributions of the volunteers in these endeavours were of value
- They should be respected with less hierarchical teacher to student traditions
- Assessment and evaluation should be more creative and transparent
- Strongly about their teachers and how teachers make a difference
- They have a strong desire to succeed—in spite of all the challenges and obstacles in their way

Note. Adapted from Gould Lundy, 2006.

Social Engagement with School

Social Engagement refers to “participation in the life of school.” It is a “combination of students’ sense of belonging at school, their acceptance of the goals of schooling, feelings of being connected to and accepted by peers, and experiences of relationships with adults” (Dunleavy & Milton, 2009, p. 8). In their study, Willms and his co-researchers (2009) surveyed students about their participation in school sports, clubs, and school committees. Students were also asked about their feelings of peer acceptance—being able to count on the support of friends,

social networking, ease in making friends, liking school, and if they felt that school is a place where they belong. School climate factors such as extra-curricular involvement, and emotional attachment to school serve as typical indicators in this dimension. The National Research Council (NRC; 2004) report on engaging schools referred to the importance of the reciprocal nature of adult-student relationships (p. 42). The NRC report cautioned that while improved attendance rates and fewer dropouts can mark progress, deep cognitive engagement that results in deeper learning is the ultimate goal. This is further described in the extensive work conducted by Professor David Hargreaves in the United Kingdom. David Hargreaves (2004, 2007, 2008) called for significant redesign of the educational system in the UK and described the need to focus on four key areas: *deep* learning, *deep* support, *deep* leadership, and *deep* experience, variously accessed through nine personalized learning gateways: assessment for learning, learning to learn, student voice, curriculum, new technologies, school design and organization, advice and guidance, mentoring and coaching, workforce development. The reference to “deep” refers to the complex interactions and links between the nine entry-points into these four areas.

Academic Engagement with School

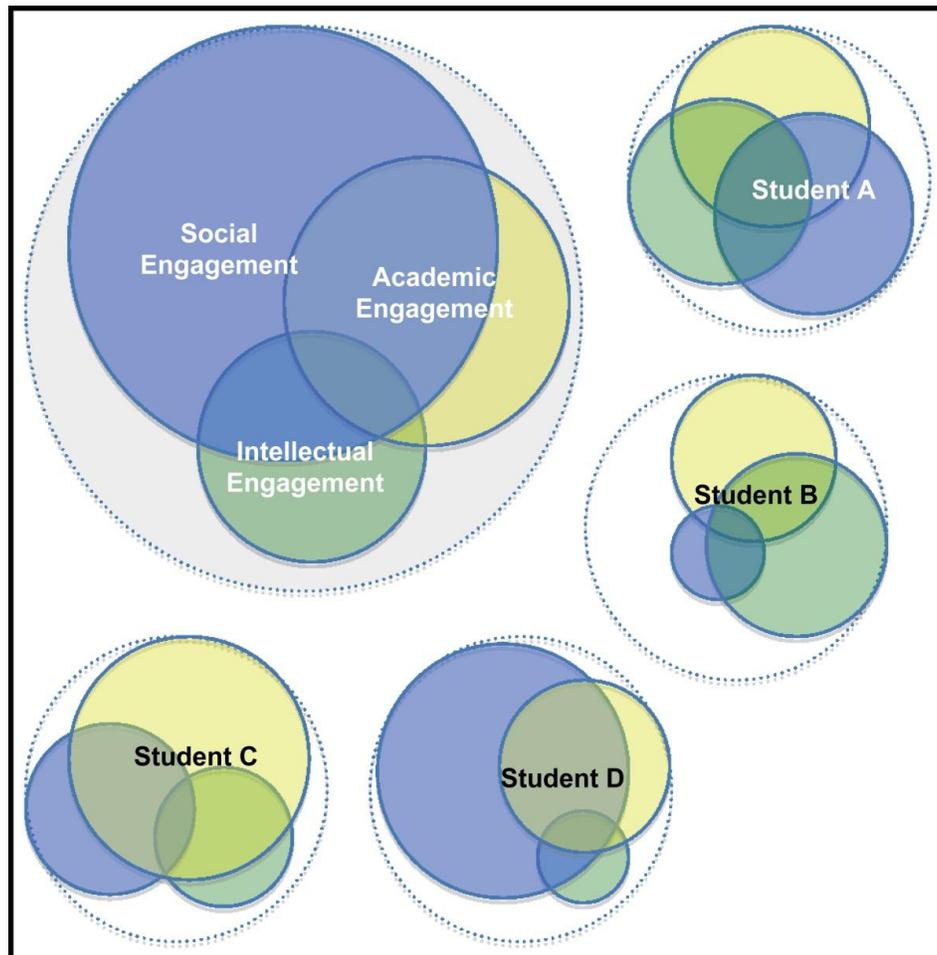
Academic or Institutional Engagement refers to participation in the formal requirements of schooling and expectations for academic success. Credits attained, post secondary plans, having a responsibility for learning, homework completion, work performed in class, attendance, tardiness, participation in class and impressions concerning the value of education. Dunleavy and Milton (2009) suggested that Newmann’s work continues to lead the research in this area and they rely on Newmann et al.’s (1992) definition of academic work to help clarify the meaning of academic engagement: “The student’s psychological investment in and effort directed toward learning, understanding or mastering the knowledge, skills, or crafts that academic work is intended to promote” (p. 12).

Intellectual Engagement with school

Intellectual Engagement is the most recent dimension to be studied. This refers to the deep “emotional and cognitive investment in learning, using higher-order thinking skills (such as analysis and evaluation) to increase understanding, solve complex problems or construct new knowledge (Willms et al., 2009, p. 7). It is knowledge building, problem solving, conceptual thinking, and learning with confidence. Each dimension contributes to varying degrees to the individual learner’s engagement in school. Figure 2 illustrates the interaction of the three dimensions of student engagement. The varying sizes of the intersecting dimensions for engagement are indicative that all three contribute to an individual’s engagement, but to varying degrees depending on the individual and the context over time. Each grouping of three

dimensions represents an individual. Individuals have varying levels of engagement in school and so would not necessarily have the same total area in this model. Conceivably, individuals could be disengaged altogether in one or more dimensions. Dunleavy and Milton (2009) suggested that, “each dimension of student engagement contributes to valued outcomes of schooling for young people. Overlooking the role that each plays in students’ experience can contribute to the development of risk factors associated with disengagement” (p. 16).

Figure 2. Three Interacting Dimensions of Student Engagement



Note. Each grouping of three circles represents an individual with varying degrees of engagement according to three dimensions of engagement (Fredricks et al., 2004; McMahon & Portelli, 2004; Vibert & Shields, 2003). Diagram adapted with permission from Willms et al. 2009 (p. 32).

The interaction among these three dimensions of student engagement (Social, Academic, and Intellectual) is of interest for my study. The three dimensions are documented elsewhere as behavioural/social, emotional/academic and cognitive/intellectual (Fredricks et al.,

2004; McMahon & Portelli, 2004; Vibert & Shields, 2003; Willms et al 2009, p. 7). Low engagement, at the very least, may cause a lack of interest, boredom and disconnectedness where students, as Pope (2003) indicated, just jump through the hoops of schooling and are simply “doing school.” Pope followed five successful Grade 10 and 11 high school students from diverse backgrounds through a school semester. She selected a school that had a positive reputation for caring teachers, strong leadership and innovative programs. Through a series of powerful vignettes Pope presented the results of her interviews, and demonstrated that these young adolescents manipulated, schemed, and cheated their way through school. Each of the students, to varying degrees and some more consciously than others, learned to manage the workload (of school) through a variety of techniques” (p. 150)—they learned to “do school” (p. 150). The following diagram illustrates the interaction of engagement among the three dimensions for each individual.

I am also interested in school and classroom climate as this may contribute to the development of engagement. Willms and his co-researchers (2009) identify five factors associated with classroom and school climate: effective learning time, teacher/student relations, classroom disciplinary climate, expectations for success and instructional challenge (p. 13). The latter measure considers a symbiotic relationship between the level of skill and the degree of challenge. Willms et al. base instructional challenge on Csíkszentmihályi’s concept of flow, which is described in the next section.

2.5. Instructional Challenge

There may be costs to society when students do not complete high school. Perhaps there are also missed opportunities for those students who are not particularly engaged in their learning, but still attend school. However, there may also be an intrinsic motivator with respect to engagement and success in schooling—the experience is referred to as flow. Proposed by Mihály Csíkszentmihályi (1990), flow is described as the mental state of optimal experience in which the person is totally immersed in what he or she is doing. It is referred to as an auto-telic experience. Time is transformed. The person is singularly focused, absorbed and energized. They have clarity of attainable goals within a physical or mental task of keen interest. Actions are balanced, symbiotically between the level of challenge and the individual’s level of skill and ability. The actions might seem effortless, but could actually require a high degree of physical or mental concentration and exertion. Flow is self-transcendent. There is a loss of self-consciousness and control, but a greater acuity of self. Bodily needs are forgotten. The person is committed and fully involved. They are lost in the moment. Feedback is immediate and adjusted on the fly, and there

is an expectation of success with concomitant anticipation of intrinsic reward. Flow at its extreme reaches for the ultimate state of happiness bringing a great sense of enjoyment and pleasure (Broadie & Rowe, 2002; Csíkszentmihályi, 1990, 1997; Shernoff, 2002; Shernoff, Csíkszentmihályi, Schneider, & Shernoff, 2003).

In their book, *Good Work: When excellence and ethics meet*, Gardner et al. (2001) described good work as work of expert quality that benefits society (p. ix). Flow experiences occur more often at work than when we are enjoying leisure time as long as the tasks we are undertaking have clearly stated goals, provide immediate feedback and present a degree of challenge that matches our level of skills. “When these conditions are present, we can experience work as good work that allows full expression of what is best in us, something we experience as rewarding and enjoyable” (p. 16).

The relationship between engagement, flow and good work is of critical interest to my study. There may be similar parallels in the work world between the manager and his or her employees as there is in the classroom between the teacher and his or her students. Lencioni (2007) describes the antecedents of “miserable jobs” as: anonymity (Does the manager really know his or her people?); irrelevance (Do the employees know who their work impacts, and how?); and immeasurability (Do the employees know how to assess their own progress or success?).

In referring to the “stunning” accomplishments of Csíkszentmihályi, Goodlad (1999) described flow as the “essence of life, despite adversity, and the process of achieving happiness through control of one’s inner life” (p. 575). However, Goodlad cautioned that this might be viewed in a negative way as the “narcissistic refinement of Eros² (wanting, pleasure, fame, power, desire and drive)” (p. 575). Goodlad goes on, though, to suggest that “the ethos³ powerfully shapes eros; and what flow is derived from and fastens onto is critically important” (p. 575). Schwab offered that:

The outcome of a successful liberal education is actively intelligent people... they like good pictures, good books, good music, good movies. They find pleasure in planning their active lives and carrying out the planned action. They hanker to make, to create... In short, a curriculum is not complete that does not move the

² “...the sum of life-preserving instincts that are manifested as impulses to gratify basic needs...” (“Eros,” n.d.).

³ The distinguishing character, sentiment, moral nature, or guiding beliefs of a person, group, or institution (“Ethos,” n.d.).

eros, as well as the mind of the young, from where it is to where it might better be. (as quoted in Goodlad, 1999, p. 575)

Differing somewhat from Csikszentmihályi, Goodlad (1999) described flow, in an Aristotelian sense, as the, “enjoyment of life, despite adversity, and the process of achieving happiness through control of one’s inner life” (p. 576). From my perspective, an important point made by Goodlad is that teachers, unlike the young adolescents they teach, may be less resilient. While they entered the profession to achieve the satisfaction offered through flow, sadly they find that such enjoyment is more likely found outside of their world of work.

Shernoff et al. (2003) described three variables within student engagement that are conducive to achieving a state of flow: Concentration—individuals should be deeply absorbed in an activity in order to optimize learning; Interest—students need to be interested, motivated and curious about the task in order to stay committed and developmentally prepared for deeper learning; and Enjoyment—students should gain satisfaction, enjoy the task and feel a sense of accomplishment (p. 161). The author of this study reported that passive methods such as class-lectures, note-taking, test-taking and watching videos left little room for real engagement. The lack of challenge, requirements for skill or relevance suggested tasks need to be provided that offer sufficient, but achievable challenge, opportunities for success, individual and group work, student choice, and connection to personal goals. I believe that the relationship between the level of individual skills and the provision of sufficient challenge is of pivotal importance when considering student engagement. This dimension of school and classroom climate is referred to as Instructional Challenge (Willms et al., 2009, p. 7).

This concept of instructional challenge is further described as:

An absorbing, creatively energizing focus requiring contemplation, interpretation, understanding, meaning-making and critique. (It is) learning that invites students to engage intellectually (and) awaken the human spirit’s desire to know (resulting) in a deep, personal commitment on the part of learners to explore and investigate ideas, issues, problems or questions for a sustained period of time. (Friesen, 2009, p. 4)

Depending on the combined levels of instructional challenge and the skills required for a task, individuals may find themselves in various states of engagement. For example, in situations where students face a low challenge, but are highly skilled, students may feel bored with the learning experience and school then becomes irrelevant. Students with low skills involved in a highly challenging learning experience may feel apprehensive or anxious and so be less engaged. Continued low challenges for students with low skills may result in apathy where school

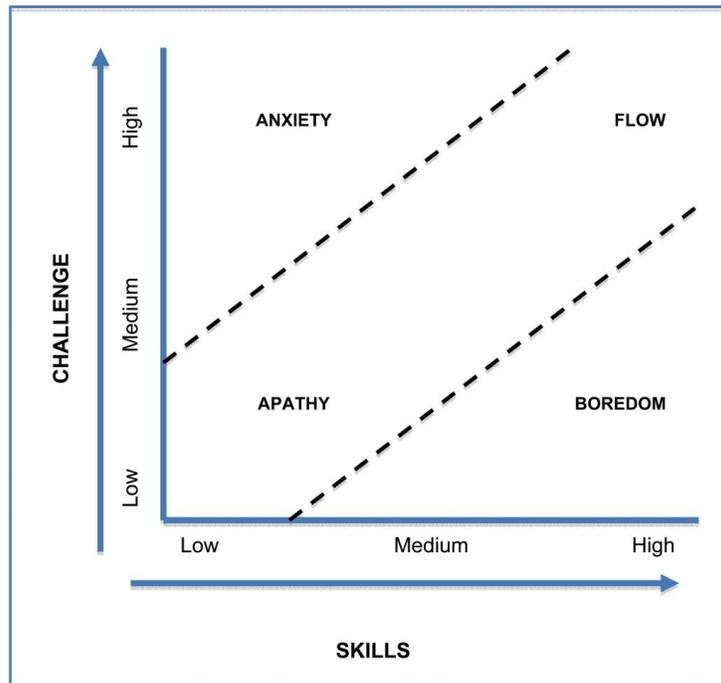
becomes less consequential. On the other hand, the fine balance between sufficiently high challenges designed for students who have mastered lower level tasks (and hence are highly skilled) may allow students to begin to feel a sense of flow as they take on new learning experiences. They will begin to feel interested and successful in school (Csíkszentmihályi, 1990; Shernoff, 2002; Shernoff et al., 2003; Willms et al., 2009, p. 12).

In the CEA's national study (Willms et al., 2009), comparisons were made between students who were highly engaged in school to those with low engagement. The survey addressed three areas: (a) Student's use of free time—involvement with work, sports, activities with friends, and home tasks; (b) students having clear goals—more likely to develop clear future-oriented goals based on their interests; and (c) students with intrinsic motivation—more likely to talk about their school performance in terms of enjoying learning activities and achieving future goals. Within four broad quadrants bisecting the interaction of challenge and skill (high/low challenge and high/low skills), researchers for the CEA project used survey data to assess the extent to which learners were confident with regard to their respective skills in mathematics and language arts and if they felt sufficiently challenged in the classes of these particular subjects. The results of this measure of instructional challenge formed a national index that was used as a comparative for local schools and districts (Willms et al., 2009, p. 13). This index was accomplished by averaging scores for students' responses to statements about the level of challenge experienced versus their confidence in mathematics and literacy skills and then creating a 2x2 matrix of the results.

Figure 3 illustrates the concept of intellectual engagement as a descriptor of Flow derived from Csíkszentmihályi (1990, p. 74) and Willms et al. (2009, p. 14). Willms and his co-researchers (2009) developed the Intellectual Engagement dimension of school climate based on the theory of Flow, which postulates that students become deeply absorbed and engaged in an activity that is of deep, intrinsic interest to them.

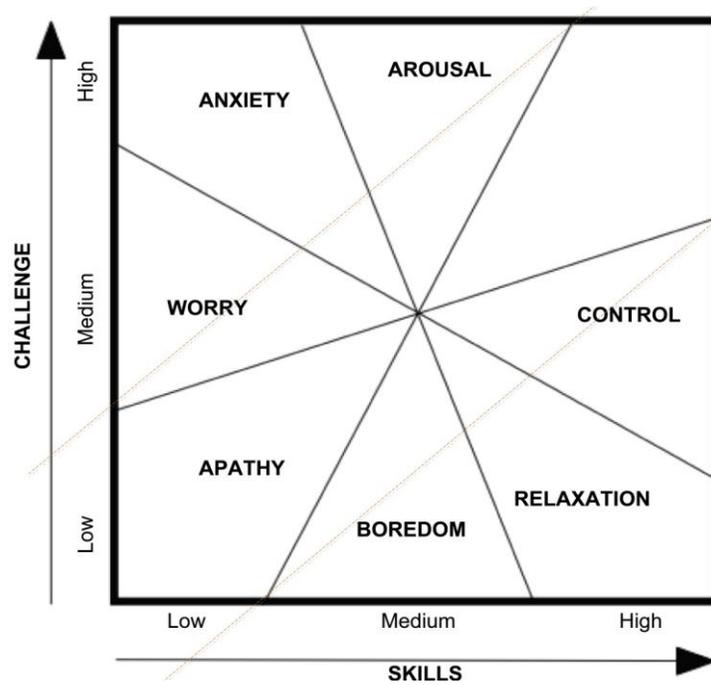
A more complex version of Csíkszentmihályi's theory of flow is represented in the Figure 4. These particular labels might not suffice for the educational system, and the tools available might not refine students' sense of being intellectually challenged to these mid-range sub-categories. However, there may be instances and opportunities for further research where more detailed categorization such as this could be useful.

Figure 3. Instructional Challenge and the Theory of “Flow”



Note. Adapted from Csikszentmihályi (1990, p. 74) and Willms et al. (2009, p. 14).

Figure 4. Categories of Relationships between Challenge and Skills



Note. Adapted from Csikszentmihályi (1997) and Willms et al., (2009, p. 14).

2.6. Measuring Student Engagement

Many instruments that have been designed to measure student engagement as a result of interest in student engagement as a means to understand and attend to problems of student success, sense of belonging and dropping out (Fredricks et al., 2004). A quite recent review by researchers with the Southeast Regional Educational Laboratory (SREL) has elaborated on the predominant tools used in the US for measuring student engagement (Fredricks, McColskey, Meli, Mordica, Montrosse, & Mooney, 2011). After sorting through 156 instruments designed to explore various aspects of student engagement, researchers with SREL reported on the characteristics of 21 instruments that measure student engagement. The report described the purpose and use of each instrument, summarized what each measured and included psychometric information such as reliability and validity. Of the 21 instruments, 14 were student self-reports through questionnaires or surveys; three were based on teacher reports; and four were observational measures (p. 6).

Willms and Flanagan (2007) have developed an assessment tool called, Tell Them From Me (TTFM) which provides data about student engagement, wellness and school climate. While the Canadian TTFM survey tool, a precursor to the instrument used in my study was mentioned in the Fredricks et al. (2011) review, it was excluded along with many others due to a lack of complete information. The instrument was modelled after Lezotte's (1991) correlates of school effectiveness: (a) Safe and orderly environment, (b) climate of high expectations for success, (c) instructional leadership, (d) clear and focused mission, (e) opportunity to learn/student time on task, (f) frequent monitoring of student progress, (g) home-school relations. By 2007, over 50,000 students had participated in the TTFM survey. For the 108 high schools that participated, a range of 60% to 90% of the students attending these schools indicated a positive sense of belonging. In other words, as many as 40% of the students, in some Canadian schools participating in the survey, had a low sense of belonging in school. Furthermore, schools showing lower scores on measures of climate—effective learning time, disciplinary climate, expectations for success, teacher-student relations, student advocacy—had more disaffected students. Willms and Flanagan (2007) further report that about 11% of those surveyed using this TTFM instrument indicated high levels of anxiety or depression—twice as many for girls versus boys. These factors were also linked to family background and SES with students from homes having a lower SES showing greater levels of anxiety and depression.

In 2007, the CEA in collaboration with the Canadian Council on Learning (CCL) launched a national multi-year initiative, WDYDIST (Willms et al., 2009). The purpose of this initiative was to capture, assess and inspire new ideas about enhancing the learning experiences of

adolescents in classrooms and schools. The CEA study extended the work of the TTFM student survey incorporating three inter-related measures: (a) Student demographics (students' grade, gender, socio-economic status, and family structure), (b) School and classroom climate (effective learning time, student/teacher relations, expectations for success, classroom disciplinary climate), and (c) Student Engagement. The WDYDIST research framework considers home and school effects on student engagement (Willms et al., 2009). Student demographics are viewed as having both a direct and an indirect effect on student outcomes (achievement and engagement)—through an influence on the classroom and school climate. The WDYDIST survey focused more on student engagement rather than achievement (Willms et al., 2009). It placed greater emphasis on what happens in the classroom as opposed to the more broad school effects and, it incorporated questions intended to gain a greater understanding of intellectual engagement and the concept of flow. This was achieved through questions about students' enjoyment, interest and motivation to do well in their classes, as well as students' views about the purposes and relevancy of schooling to their everyday lives and to the outcomes of schooling, success and their aspirations for the future. The survey questions are found in Appendix A.

2.7. Implications of Disengagement

Central to this study is the concern that some of those students remaining in school may lack challenge and as a result, not be engaged in their learning as much as they could, suggesting undeveloped skill and talent, unrealized potential and lost opportunity. At the extreme, a lack of engagement in school may contribute to lower achievement, a lack of success, declining grade-to-grade transition rates, reduced graduation rates and, ultimately, to dropping out of school and/or not pursuing post secondary education. Dropping out of school was not a focus for this study. I was interested in those students attending school and their engagement. However, the consequences of lack of engagement in school are briefly considered in this review. For many students, dropping out of high school is the last step in a long, gradual process of disengagement (Finn, 1989). The economic impact of school dropout on individual success and on society is well documented, and is poignantly clear in the research conducted by Gingras (2002), the National Research Council (2004), and Hankivsky (2008). Hankivsky utilized a wide range of international studies and followed commonly accepted, conventional economic procedures using prevalence-based methodology to estimate all lost opportunity costs to the economy, which have resulted from current or previous high school dropouts. Hankivsky noted that her study only focused on educational attainment and did not account for the quality of education, considered to be an important factor in educational outcomes. The results of her study showed that the potential annual costs per dropout as a result of the costs of health, social assistance, crime, labour, and

unemployment insurance as well as resulting earnings loss, tax revenue losses, revenue loss in employment insurance premiums per dropout was estimated to be \$19,104 as an estimated cost/dropout per student per year. Overall savings to the GDP in 2008 resulting from a single percentage point increase in the Canadian high school graduation rate would be over \$7.5 billion (in 2008 dollars). The long term costs are even more pronounced when one considers the impact in Canada of a pending shortage of an appropriately trained and skilled workforce (Miner, 2010a, 2010b; WorkBC, 2010).

The implications of not engaging in school for the individual from the perspective of self-image are perhaps more elusive, but nevertheless are of equal or greater importance. The work of Csíkszentmihályi (1990), Gardner et al. (2001), and Goodlad (1984, 1999) represent this point of view. However, there is an external value to engagement in school. Gingras (2002) conducted an applied research study using various Canadian labour force statistics such as the School Leavers Survey (Statistics Canada, 1991), Conference Board of Canada data and OECD data to show the impact of the high school dropout rate in Canada and the subsequent costs to society. High school dropouts (or leavers) are youth who at a given time, left high school without graduating. The high school dropout rate (or non-completion rate) is the proportion of people in a specified age group who left high school without graduating at a given point in time (p. 2). Gingras (2002) argued that this is important because it brings attention to the potential loss of *human capital*⁴ as an investment through education that some adolescents are not acquiring, by failing to complete high school. Gingras proposed the following options to address the dropout issue: (a) develop alternative educational pathways to promote high school retention and increase the attractiveness of such pathways for youth, (b) raise the legal age at which youth can leave high school, (c) introduce a wage differential for youth relative to the adult minimum wage, and (d) promote the long-term benefits of completing high school through social marketing campaigns (pp. 33-34).

2.8. Student Success

Student's views about success may provide a window into the nature of their passions, motivations and engagement with respect to schooling. The interest here is in whether students consider success in the short term through performances, products, marks or other outcomes, or if in fact, students think in the longer term about post secondary education, career success and

⁴ Human Capital: level of knowledge, skills, experience and credentials of a group (Malen & Rice, 1984).

even monetary success. The “Report of the Student Achievement Task Force” (Wickstrom, 2003) commissioned for the British Columbia Ministry of Education offered several approaches to defining student achievement. These approaches are summarized below.

- **Minimum standards or mastery.** Specifying a required level of attainment;
- **Eventual success.** Long-term, lifetime success, success as an adult;
- **Satisfaction.** Attends to the level of satisfaction obtained in a given task, process, experience or course;
- **Comparative or relative position in life.** Relies on the human tendency to compare oneself to others;
- **Growth.** Refers to dedication and commitment or the increase in learning over time.

From the foregoing perspectives and the submission of more than 150 briefs and presentations, the task force proposed the following definition: Student achievement is an improvement in learning that develops both the individual and the individual’s ability to contribute to society (Wickstrom, 2003, p. 9). This composite definition of student achievement assists in understanding the concept of student success to include various quantitative and qualitative measures such as graded achievement, student engagement, perceptions of satisfaction, school completion, intrinsic and extrinsic feelings of success and life success. This broad perception of student success served as a background and was explored through my interviews with students to see if they had a similar perception and if this was a motivating aspect of student engagement with regard to their success and future aspirations. I had this definition in mind when I designed my interview questions and asked students to explain their perspectives about the meaning of success and when they felt that they were being successful.

2.9. School Climate

School Climate is a concept that deals with the total environmental quality within an organization. Dimensions of the concept of climate include:

...its ecology—the physical and material aspects, its milieu—the social dimension concerned with the presence of persons and groups, its social system—the social dimension concerned with the patterned relationships of persons and groups, and its culture—the social dimension concerned with belief systems, values, cognitive structures, and meaning.

(Tagiuri as quoted in Anderson, 1982)

A similar category system to describe the social environment was developed by Insel and Moos (as cited in Anderson, 1982). Among several climate factors identified, they described

organizational structure (size and range of control) and personal characteristics of individuals such as age, ability and family background/SES. The associations among school size and school climate, particularly in areas such as school completion, become important contributing factors to student outcomes when considering the effectiveness of a school (Eberts, Kehoe, & Stone, 1984). Several differences between large and small high schools may be presented as factors that can be controlled at the school level. School completion as an aspect of school climate and student engagement is one such indicator of student success. In her examination of school climate, Anderson (1982) described several factors contributing to school climate that impact student outcomes. These values and belief systems include student engagement, teacher (and student) commitment, peer norms, cooperative emphasis, high expectations, emphasis on academics, rewards and praise, consistency, consensus and clear goals. Crenshaw (2003) found that research on school dropout rates focuses less on organizational factors such as school size, and mostly on individual characteristics such as student engagement that contribute to non-completion. Schools where there is a greater feeling of belonging and respect have better student outcomes (Barclay & Doll, 2001; Cotton, 1996; Lee, Bryk, & Smith, 1993; Newmann & Wehlage, 1997; Rumberger & Thomas, 2000). Pittman and Haughwout (1987) also found that possible connections between school size and dropout rate were almost all due to the school climate, particularly those elements dealing with student engagement, participation and the social environment. In other words, school climate rather than school size may be a critical determinant of student engagement.

2.10. School Capacity

School capacity refers to the abilities of teachers to acquire new ideas, carry out their teaching functions and examine the consequences of their actions often arrived at through the availability of various resources including forms of professional development and opportunities to learn from practice. Indicators include informal channels, such as conversations with colleagues, as well as more formal professional development opportunities, including workshops, mentoring arrangements, and other practices that occur as a direct or indirect result of the initiatives related to accountability policies. Malen and Rice (2004) offered a 2-dimensional framework for assessing how education policy initiatives may affect a school's ability to improve its performance and support student learning. The authors drew on the theoretical literature concerning school capacity and case studies on school responses to accountability policies to develop and illustrate a framework that included both a resource capital dimension and a productivity dimension. Malen and Rice argued that this framework encourages a more complete exploration of the manner in which education reform policies, such as school closure and consolidation, might impact school

capacity. They defined school capacity in terms of the fundamental capital resources, including fiscal, social, human and cultural capital that schools require to carry out their functions and for describing the degree to which those resources are present in the organization (Table 3).

Table 3. Elements of the Resource Capital Dimension

| | |
|-------------------------|---|
| Fiscal capital | Financial resources allocated to a school |
| Social capital | Degree of collaboration among staff as a learning community. |
| Human capital | Level of knowledge, skills, experience, and credentials of the professional staff. |
| Cultural capital | Extent of relationships among diverse multicultural groups comprising the school population; mediation between home and school cultures; and the ability of staff to adjust teaching approaches to the nature of the students given their varied social and ethnic backgrounds. |

Note. Adapted from Malen & Rice, 1984, p. 634.

Corcoran and Goertz (1995) described three key components of school capacity: (1) the intellectual ability, knowledge, and skills of teachers and other staff; (2) the quality and quantity of the resources available for teaching, including staffing levels, instructional time, and class sizes; and (3) the social organization. According to Malen and Rice (1984), the second dimension of school capacity attends to school productivity through the translation of resources into expected student outcomes. School capacity, in this case, is viewed as more than the resource capital available to an organization; it is also viewed as the “optimal amount of production that can be obtained from a given set of resources and organizational arrangements” (Corcoran & Goertz, 1995, p. 27). This dimension of school capacity takes into account the ability of a school to utilize resource capital to achieve expected student outcomes.

2.11. School Population Size

The preponderance of professional literature in the past decade indicates that educational researchers support the concept of small school effectiveness. It appears, however, that the determinants of school size are seldom the result of research. More often, school size is the result of other factors—political, economic, social, and demographic. Seldom are school size decisions made solely on the merits of size as an educational factor. (Williams, 1990, p. 9)

Creating less structured, non-bureaucratic, autonomous, equitable, and personalized secondary institutions that can still meet the conflicting aspirations of students, parents, and teachers for what the high school should deliver has turned out to be a monumental task (Cuban, 2000, p. 107). Cuban implies that these seemingly adverse conditions of structure, bureaucracy,

and inequity in larger schools are automatic and inescapable. Perhaps this is not the case— certainly not for all large schools. Definitions of what constitutes the appropriate size for an effective school vary and seem to be quite contextual. Meier (1995) described six reasons why schools of 300 to 400 students work best: (a) Feasible democracy and change, (b) staff collectively responsible for each other's work and have access to it, (c) ability to know each student's work and the way he or she thinks, (d) physical safety, (e) access of parents and community instead of complex governing bodies, and (f) ability to effectively immerse students into adult culture. Monk (1987) suggested that a total enrolment of 400 students is actually sufficient to allow a high school to provide an adequate curriculum. However, an *adequate* curriculum might not provide the appropriate curriculum necessary for students to achieve the sort of personalized learning skills as, for example, defined by the Partnership for 21st Century Learning including life and career skills and information, media and technology skills (Partnership, 2007). Many researchers argue that no school should be larger than 400 or 500 students (Cotton, 1996; Harvey, 2005; Williams, 1990). In her review of research on school size, Viadero (2001) claimed that students in schools of 400 to 600 students earn higher grades, come to class more often, participate in more extracurricular activities, and are less likely to drop out than those who attend larger schools. Williams (1990) claimed that on average, the research indicates that a secondary school should be in the range of 400 to 800 students. A joint policy statement issued by the Carnegie Foundation and the National Association of Secondary School Principals recommended that high schools break into units of no more than 600 students (Irmsher, 1997). Conceivably, these could be separate schools or schools within schools. Lee and Smith (1997) argued for secondary schools of between 600 and 900 students to ensure a good range of curriculum opportunities. It is possible, however, that a differing philosophy of school purpose is at work with respect to what constitutes a good range of curriculum offerings. Reducing schools to core academics with little attention to electives and vocational studies could mean lower costs for facility infrastructure and staffing, but would limit student interests and learning opportunities. Smaller schools are also not effective when they try to emulate larger comprehensive schools, for example, by retaining departmental structures. However, meta-analyses (Cotton, 1996; Gladden, 1998; Raywid, 1999) have shown that it is difficult to find research in support of the larger high school. Smaller schools offer opportunities, personal connections and freedom to redesign programs and practices. Regardless of ethnicity or family background/socio-economic status, students have higher pass rates and attain a higher level of education than students who attend larger schools. In smaller schools, graduation rates for all students are well above national averages. The combination of challenging curriculum, individualized learning, daily support and closer relationships developed among peers and teachers leads to higher levels of success and high school completion.

In spite of school consolidations being made to address widespread declining enrolment, there is a counter-movement opposing the growth of larger schools. Gregory (2000) attributed a decline in support for larger secondary schools to better educational technology, an adolescent culture, the students' rights movement, and changing attitudes about how organizations should function. As a result, school redesign with respect to student population size is emerging. Sergiovanni has proposed that a school enrolment of 300 is the largest that can sustain a true educational community (as cited in Howley, 1994). However, one must be cautious that advocates for small schools of this size are not also advocating for academically elite programs or schools with narrowed curricula.

On the other hand, there seems to be little justification for very large secondary schools of 2,000 or more students. Even the few studies citing positive benefits of larger schools for some students find that such benefits are of less significance than the disadvantages of such schools for many others (Raywid, 1999, p. 2). Grossman and Stodolsky saw larger schools compartmentalizing subject area departments, thereby creating barriers to the school-wide collaboration needed for school improvement (as cited in Leonard, Leonard, & Sackney, 2001). A. Hargreaves and Macmillan (1992) referred to this as the “balkanization” of school cultures due to the relatively isolated, small sub-cultures created by departmental structures. This reflects both a philosophy of schooling that emerges out of practicality due to size and an ideology of how knowledge is constructed—in departmentalized domains. Howley suggested that, “professional faith in the virtues of larger schools persisted, virtually unchallenged at least through the mid-1960s” (as quoted in Cotton, 1996, p. 3). However, the current research literature presents a predominant view that smaller schools provide greater educational advantages for teaching and learning. Ever since the work of Barker and Gump (1964), proponents of smaller schools have touted their benefits (Boss, 2000; Cotton, 1996, 2001; Lee & Smith, 1993, 1995; Raywid, 1996, 1999, 2006).

In spite of research evidence demonstrating the educational advantages of smaller schools, especially for low-income students, many jurisdictions continue to encourage amalgamation or closure of small facilities and their replacement with larger, consolidated structures (British Columbia Teachers' Federation, 2011). Students then must travel greater distances to their designated schools or programs of choice. However, it is also true that smaller schools must look to distributed, on-line learning and video-conferencing as ways to address the inability to offer a full mosaic of programs and courses personalized to individual needs. Larger schools, having the advantage of strong enrolment and greater capacity, are also able to offer unique programs, which might not be available in smaller schools (Howley, 1994; Howley & Howley, 2006, p. 2; Howley, Strange, & Bickel, 2000). Larger schools generally offer more basic

courses in what some have called “a shopping mall curriculum.” The trade-off for wider course offerings has been a sacrifice of coherence, intimacy, security, student choice and teacher autonomy, all of which are vital to successful, engaged learning in today's urban environment (Klonsky, 1995, p. 2).

It seems logical that larger schools can offer a greater range and quantity of courses than small schools. It then follows that the limited capacity of small schools to offer a varied menu of curricula creates a disadvantage for some students. However, research shows that there is no reliable connection between school size and access to curriculum (Cotton, 1996, 2001; Gregory, 2000; Howley, 1994; Monk, 1987, 1992; Monk & Haller, 1993; Pittman & Haughwout, 1987). Curriculum offerings in small school settings compare quite favourably in terms of breadth and depth with curricula offered in much larger settings. Similarly, in their study of school comprehensiveness, Monk (1987) found that although larger schools offer more courses than do smaller ones, it is less clear that they offer more comprehensive programs as pathways for learning, and further, there is substantial variation in comprehensiveness among the Math, Science and Language programs at any given school population size. Monk and Haller (1993) expressed caution over the assumption that the simple presence of a course within a school's catalogue means that it is equally available (pp. 3 and 21). All schools encounter timetabling challenges and it is logical to expect that a smaller school population may contribute to the intensity of such problems.

While there appears to be growing public interest in smaller schools, a number of political, economic, and social factors mitigate against such redesign efforts, including the “iconic notions” of high school—lack of time, resources, technical assistance, system impediments, and perceived cost concerns (McRobbie, 2001). Leonard et al. (2001) called for a concerted commitment that encourages the key small school characteristics necessary to create successful learning communities. Meier (1995) argued that for smaller schools to be effective, they must be accompanied by control over budget, staffing, scheduling, and the specifics of curriculum and assessment (p. 37). No matter how a smaller school is defined, success depends on the development of community, credibility, and culture, the attention to concreteness, and the opportunity for celebration. School population size may in fact just be a proxy for organizational elements, which influence student success and student engagement. There are many factors at play here, and so, as my study intends to investigate, school size might not be a major contributing determinant of student engagement, but the research does suggest that smaller schools may contribute to better relationships and improved school climate.

2.12. Social Capital Perspective

The concept of social capital is thought to have first arisen in Lyda Judson Hanifan's discussions of rural school community centres in 1916. He described social capital as “those intangible substances (that) count for most in the daily lives of people.” Hanifan was concerned with the “cultivation of good will, fellowship, sympathy and social intercourse among those that make up a social unit” (Smith, 2007). Capital in a broad sense is defined as resources that can be drawn on to promote productive activity (Bourdieu as cited in Dika & Singh, 2002). Sociologists, economists and political scientists have described several forms of capital according to function, including knowledge, physical, fiscal, human, social and cultural capital (Brown & Duguid, 2002; Flåp & Völker, 2004).

Bourdieu, in his work, described *social capital* as the “aggregate of actual or potential resources linked to a durable network of essentially institutionalized relationships” (as quoted in Dika & Singh, 2002, p. 33). This view of social capital includes both material and symbolic goods, which can be exchanged through obligations, connections or in the marketplace. The World Bank refers to social capital as the institutions, relationships, and norms that shape the quality and quantity of society's social interactions (Smith, 2007).

Claims have also been made that social capital is produced through social interactions (Adams & Sydie, 2001, p. 529; Coleman, 1988; Smylie & Evans, 2006, p. 189). In terms of social interactions, there are three acknowledged components of social capital: (a) Trust—based on commitment and understanding creates a context for engagement, predictability, stability, cooperation and confidence; (b) channels of communication—can facilitate information sharing, reciprocity and support the development of productive knowledge and skills; (c) shared norms, expectations and the possibility of rewards or sanctions—can foster some behaviours and constrain others. While maintaining mutual obligations and interdependencies and limiting negative behaviours, the potential for sanctions, especially in more closed structures, can reduce innovation, action and outside information (Dasgupta & Serageldin, 2000, p. 16; Dika & Singh, 2002; Smylie & Evans, 2006, p. 189). On a global scale, as seen by the World Bank, the notion of social capital is based on concepts of participation, environment, and sustainability, and, more recently, the new outcome of “social capital”—empowerment. *The World Bank Sourcebook* (Narayan-Parker, 2002) identified the following key components of empowerment: “access to information; inclusion or participation in decision making; accountability of organizations to people; capacity to organize at the local level to resolve problems of common interest” (Bebbington, Guggenheim, Olson, & Woolcock, 2004, p. 58).

2.12.1. Social Capital in the Family and Community

In a paper presented at an OECD conference in Ottawa, Woolcock (2001) captured the basic notion of social capital in a community: “One’s family, friends and associates constitute an important asset, one that can be called upon in a crisis, enjoyed for its own sake and/or leveraged for material gain” (p. 67). However, if the relationship is poor or dysfunctional then there is no capital. In other words, relationships matter and the social networks constitute the assets of social capital. Communities having strong civic associations, institutions and networks will have a better chance at handling poverty and vulnerability, dealing with disputes, and accessing new opportunities—the converse, however, is also true. Groot, Maassen van den Brink, and van Praag, (2007) reported on the determinants of social capital within communities including the size of the individual’s social network and the extent of their social safety net and network membership. They analyzed how social capital contributed to well-being and found differences in social capital when distinctions were made according to individual characteristics such as education, age, residence, household composition and health. Lareau and Horvat (1999) conducted a study of parents’ involvement with their elementary-aged children. Using interviews and observations, the researchers revealed how some parents approached the school with open criticisms. The results showed the difference between possession and activation of social capital and the value placed on demonstrations of social capital in certain settings. Lareau and Horvat developed a framework to identify inclusionary/exclusionary practices among families and emphasized the role of schools in utilizing social capacity (resources based on group membership, collaborative relationships, networks of influence and support among groups), and cultural capital (resources based on the relative knowledge, skills, education, and advantages that a person has, which give them a higher status in society).

Influenced by claims made by Coleman (1966) that SES of families explains differences in student achievement, dropping out, entry into post secondary education, employment and level of income, Leithwood, Fullan and Watson (2003) described two views of public school communities (p. 13). The independent producers’ model holds that schools are largely independent of parents and the community. The second interdependent co-contributor view holds that schools cannot hope to be successful without extending their boundaries to the broader realm of families and society. Leithwood et al. advocated for the interdependent co-contributor point of view and made several claims about the roles that families and communities play in the development of students’ social capacity at school. These claims include:

- A family’s socio-economic status is strongly related to student learning and behaviour and it influences success at school through learning possibilities at home. Family and community interactions form an educational culture at home that has more direct

impact on student learning than SES alone. At the centre of this argument are the family's assumptions, norms, and beliefs about learning and school.

- Strong parent-school relationships are key for student success. Family educational cultures provide students with intellectual, social, and emotional capacities that improve chances of educational success. Such social capital is composed of the 'assets' accrued due to the relationships gained through the established family, school and community networks. Broad community support through interdependence, familiarity, and commitment to a shared purpose—from the nucleus to extended family to community organizations and agencies better enables student success.

(Leithwood et al., 2003, p. 13)

The capacity that diverse groups of students bring to school may often be under-utilized. More schools must learn to accept these assets (language, ethnic, religious and cultural diversities) as having positive value in terms of social capital. It seems that findings from the aforementioned studies might suggest research along similar lines with respect to the development of social capital among students.

2.12.2. Social Capital in the Educational Community

Educational leaders are identifying social capital more often as a theoretical frame to address ever-present social and educational issues. However, as a theoretical concept, social capital has only recently arisen in popularity in education, emerging in the mid to late 1980s through the original work of Bourdieu (as cited in Halsey, Lauder, Brown, Stuart Wells, 1997, p.46).

From a scholastic perspective, Social Capital represents the extent to which, the school is viewed as a community, particularly one that promotes collaboration in achieving school goals—whether and how initiatives affect staff stability and foster an environment characterized by trust, collegiality, and collaboration. It refers to the networks or relationships among and between the staff, students, families and the community, which provide the means for educational success. It is the intangible and abstract resource derived from interactions among individuals and social structures that frame them (Smylie & Evans, 2006, p. 189).

There are two commonly taken perspectives to the consideration of social capital in educational communities: (a) the notion that it leads to a collective good, and (b) that resources become available as a result of the relationships among individuals in educational settings. The latter perspective depends on the number of individuals in the group willing to assist and contribute, the strength of the relationships, and the nature of the shared resources (Dijkstra & Peschar, 2003, p. 61; Flåp & Völker, 2004, p. 121). At the individual level, social capital is more closely linked to the nature of schools. For example, using the data from the High School Completion and Beyond study, Coleman and Hoffer reported clear links between social capital

within families and school dropout rate as an educational outcome (as cited in Dasgupta & Serageldin, 2000, p. 29). Coleman (1997) reported that human capital formation is especially responsive to the social capital remaining in school until graduation. Human capital was defined earlier in the report here, as the level of knowledge, skills, experience and credentials of the group and social capital was described as the degree of collaboration and among people in the community (p. 93). Social capital in the family and community has value in reducing the possibility of dropping out of school. Students bring this social capital to school and access this capital among other members of the school community.

Research into the development of social capital in educational settings is fairly recent and relatively limited in scope. Dika and Singh (2002) conducted an important and critical review of the literature with respect to the development of social capital in educational communities. They explored the usage of social capital as an explanatory variable in educational research, drawing on the theoretical literature in sociology and economics and empirical literature in education and family/child studies. In their review, only 35 primary sources were identified. The authors indicated that studies focusing on social capital are yet to arrive in mainstream educational journals—making this an opportune and necessary area for further study.

2.12.3. *Social Capital among Staff and Students in Schools*

The social capital perspective, derived from the social interactions that can take place in schools, is growing in importance as policy makers, educational planners and school leaders consider the educational implications (Bourdieu, 1997, p. 51; Coleman, 1997, p. 81; Nguyen, Schmidt, & Murray, 2007; Smylie & Evans, 2006, p. 189). My view is that social capital is a key component within the social milieu of staff and students at a school level. As seems to be the case among the adults in schools, there may be similar antecedents in the formation of social capital among students, which may contribute to the development of their engagement in school.

Dika and Singh (2002) conducted an extensive review of social capital via educational and sociological research published between 1990 to 2001 in mainstream international citation indices and abstract databases. The earlier research (pre-1995), following the publications of the Bourdieu (1986) and Coleman (1988) theories of social capital and focused largely on the development of social capital among minority groups. Research designs included analyses of survey data, interviews and mixed methods (survey and interview) approaches. Dika and Singh (2002) also used subsequent research conducted during the late 1990s primarily utilized data from large scale studies not originally designed to measure social capital: National Youth Studies (1976), High School Completion and Beyond (1980, 1982), National Education Longitudinal Study

of 8th graders (1988, 1990, 1992). Most of these studies used survey designs and relied on Coleman's (1988) theory of social capital from a parenting perspective rather than from an adolescent learner perspective. One study utilized educator expectations and influence as a school level source of social capital (Lopez as cited in Dika & Singh, 2002). Of the more recent studies undertaken between 1999 and 2001, Dika and Singh state most followed Coleman's (1988) theory while some were guided by Bourdieu (1997) and Putnam (2000) (collective social capital) and Lin (1990; social network theory), and most still used national data sets. Up until that point, most studies were quantitative in nature. Several studies used a research design incorporating individual and focus group interviews, observations and document analyses (Dika & Singh, 2002; Fritch, 1999; Lareau & Horvat, 1999; Morrow 2001; Stanton-Salazar & Dornbusch, 1995). Singh, Granville, and Dika (2002) viewed academic engagement as the active involvement, commitment, and attention of students as opposed to apathy and lack of interest (p. 324). They further suggested that engagement and motivation are critical constructs of student learning. They indicated that there might be a reciprocal relationship between engagement and motivation. Engagement enhances interest and motivation affects engagement in academic tasks. Dika and Singh (2002) found positive associations between social capital and educational attainment (graduation versus dropping out), educational achievement (grades, GPA,⁵ test scores) and education-related factors such as student engagement, career aspirations, involvement, home-school connections, effort, and motivation. However, the authors expressed some caution in the conceptualization and measurement of social capital, as the body of research does not adequately address differential access to social networks and social resources. Few studies focused on the development of social capital among students, favouring instead, an interest in social capital engendered among staff and parents. This seems to be an area for further study.

In two longitudinal studies of teacher professional development programs, researchers revealed common conceptions of instruction, an interdependency and shared responsibility grounded in new social relationships as part of a school project and the contrary resulting fear, dissatisfaction and lack of trust where social capital was not engendered (Placier & Hamilton, 1994; Richardson, 1994, p. 196). Similarly, Clift, Veal, Holland, Johnson, and McCarthy (1995) found that in a study of collaborative leadership and professional development, mutual trust, co-responsibility for action, and attention to group over individual needs was related positively to the social context. In studying the implementation of different school restructuring initiatives, Elmore, Peterson, and McCarthy (1996) attributed positive results to the social capital invested in the

⁵ Grade-point average (GPA): Cumulative measure of student achievement.

relationships among people within the schools—trust, collaborative action, common vision, shared expectations, and external relations were mentioned as key determinants (p. 196). Wolf, Borko, Elliott, and McIver (2000) found a positive correlation between social capital and the alignment of professional judgment among school staff about teaching and learning with state-wide education reform efforts. Contributing factors included having a shared vision, good communications, collaboration, trust and a willingness to take a collective risk. Through an ethnographic study on urban schools, Little (1982) found the importance of relationships among staff (p. 196). Having shared norms, interdependence, mutual trust and a common focus on teaching illustrated a positive connection between the components of social capital, teacher leadership and professional development.

Stanton-Salazar (1997) emphasized the role of the adolescent in a social network affected by social strata. He provided a way of comprehending the social interactions of minority adolescents by studying the role that relationships between students and teachers and counsellors play in the larger multicultural context in which working-class minority youth must negotiate. In several studies of Kentucky schools, Using the concept of social capital, Stanton-Salazar and Dornbusch (1995) examined data collected through surveys and semi-structured interviews on the information networks of a selected sample of high school students and the role of significant others in status attainment. Apart from the influence of family socio-economic status, they assessed how students' grades, educational and career aspirations were related to the formation of instrumental links with their teachers. The authors found some evidence for the relation between achievement, aspirations, expectations of status and measures of social capital.

Morrow (2001) used qualitative methods to explore Putnam's (1993) concept of social capital in relation to adolescent well-being and health with the premise that levels of social capital in a community have an important effect on students' well-being. The study concluded that using a range of approaches, including visual methods, helped in the exploration of quality of life issues for young people who are usually neglected in studies of their health-related behaviours.

Dika and Singh (2002) offered extensive comments about gaps in research issues with respect to the development of social capital. They view the concept of social capital as still “fuzzy” and that it neglects the voice of the adolescent. For example, it emphasizes meaningful parent involvement, but suggests a hierarchical parent-child relationship. At this stage, social capital serves as a descriptive framework rather than explanatory with regard to school effects.

2.13. Symbolic Interaction Perspective

The theoretical framework of symbolic interactionism influenced by pragmatists such as Dewey, Cooley, and James, comes from the field of social psychology with the individual as the primary unit of analysis. The theory emerged during the early 1900s from the writings of sociologists such as George Herbert Mead (as cited in Blumer, 1969). While very much a contemporary field for debate among post-modernist theorists, Herbert Blumer (1969), a student of Mead, originally coined the term in 1937 as a pragmatist's approach to studying social interactions (Atkins, 1998, p. 76; Charon, 1998; Farberman, 1991; Prawat, 1996). Congruent with Brown and Duguid's (2002) notion of learning as a meaning driven, identity forming, and socially situated activity, three basic tenets of symbolic interactionism are: (a) Human beings act toward things/experiences on the basis of the meanings those things/experiences have for them, (b) the source of the meanings for things/experiences can be derived from the social interaction with others, (c) the meanings of things/experiences are handled in and modified through an interpretive process used by the individual in dealing with the things he or she encounters (Armstrong, 1999; Blumer, 1969; Fidishun, 2002, p. 444; Hewitt, 1976; Wallace & Wolf, 2006, p. 217).

I have chosen to restrict this particular review of the literature to a consideration of symbolic interactionism and to not venture into a discussion concerning the role that semiotics, the study of signs and symbols, might play in bridging the gap between symbolic interactionism and cultural studies. Semiotic theory, according to Denzin (1987) has largely remained outside of symbolic interactionist thought. This point has been restated more clearly by Vannini (2007): "Most sociologists still perceive semiotics as an arcane, precious, and unintelligible intellectual enterprise" (p. 113). Perhaps Manning (2004) said it best: "There is a winding path through semiotics, pragmatism, and narratives that leads to an intersection at which semiotics, pragmatism and what is now called symbolic interactionism were one; now they are colourful fragments in a lovely mosaic" (p. 1021).

2.13.1. *Symbolic Interactionism within a School Culture*

There is merit in using symbolic interactionism to look at the culture of an individual institution such as a school. Such use, when coupled with other approaches, can enable extrapolation (Denzin, 1969; Fidishun, 2002, p. 447; Meltzer, Petras, & Reynolds, 1975). In a recent paper, Wrigley (2011) referenced Kuhn and others regarding the "many anomalies" associated with school change efforts. He calls for a paradigm shift in the emphasis of educational practice from a "neo-liberal marketization" model of schooling to new approaches to

school change that attend to symbolic interactions between the school and community, particularly in the struggles against poverty, vulnerability, class and ethnic difference. “A change in focus is needed from the school as a managed entity within a competitive market to the relationship between school (institutional) and the students’ life-world (culture and community-based knowledge)” (p. 65). Wrigley suggested that researchers draw on a wider range of theory including Bourdieu’s (1997) concept of Capital and Goffman’s (1968) use of Symbolic Interactionism in the study of inmates.

Blumer (1969) proposed that, “a key premise of symbolic interactionism is that meanings assigned to objects in the world arise out of the social interaction one has with one’s fellows” (p. 2). This perspective may apply to individual students who act toward events or objects on the basis of the meanings that these events or objects have for them. Such meanings are derived, modified and interpreted through a process of social interaction within a group. The reaction of each student to the singing of the national anthem at a hockey game might serve as an example. The social context and derived meanings might be very different to their responses when the same anthem is played at a Remembrance Day ceremony or a high school graduation event. The perspective is based on several assumptions including one that states that our individual responses towards the actions of people and objects in our surroundings are based on what the gestures or actions of the people and objects mean to us. These meanings are determined through social interactions among members of a group. They are constantly being interpreted and evolved by the individuals within a group. The use of the term *symbolic* refers to the language attached to the meanings. The word, *interactionism*, implies the social process of meaning making.

In order to gain an understanding of an individual or group’s actions, the researcher has to be close to the setting—ideally, the researcher should actually be a part of the setting as an insider. The outsider is a person external to the setting—physically and/or in terms of knowledge and experience. The outsider may have the insider’s best interests in mind; however, the outsider may not understand the true meanings behind the practice of those inside the setting (Olson, 1982). Sarason argued that, “By virtue of the fact that the observer is himself part of a structure—be it in the school culture or in one outside of it—his perception and thinking are in various ways incomplete, selective, and distorted” (quoted in Anderson, 1982, p. 15). However, Sarason suggested that insider knowledge and perception might be of some advantage over outsider observations. Behaviours might be observable, but only occur occasionally and so could be missed by an outside observer. Behaviours might occur regularly, but outside the realm of observation by an external researcher and again be missed. On the other hand, there is also potential bias that might exist with an inside observer that obstructs sufficient separation and

independence from the action. The limitations of objective data, such as socio-economic status, academic ability, and school size, make them inadequate proxies for student engagement and school climate, suggesting the need for research from an insider's vantage point to complement and balance these more distant objective measures.

Social scientists have drawn on symbolic interactionism in studying various aspects of schooling, although less so in recent times (Fine, 1993; Hargreaves, 1978). In their extensive review of social interactionism within educational institutions, Kinney, Brown-Rosier, & Harger (2003) discussed the importance of meaning making; identity formation; group agreement on class routines; peer to peer interactions; and the impact of instruction on student's identities (p. 575). This comprehensive review examined peer cultures among students, school organization and home/school relations. Many studies reported in the review researched the formation of social peer groups or cliques within school communities. Kinney (1993), for example, described how adolescents view themselves within the dynamic social layers of peer groups in schools. The authors also described how the unintended cultural biases of teachers towards their students affect student motivation and achievement. In their meta-analysis on student cultures, the authors also indicated a strong resistance towards intellectual pursuits among students "not inconsistent with the larger societal emphasis on wealth, beauty (and) consumption" (Kinney et al., 2003, p. 594). The authors, in describing how students place different values on scholarly activity in different schools, call for more research into the differences among student cultures across rural, sub-urban and urban schools with particular attention being given to teacher-student relations and student peer-to-peer interactions that promote student success.

Examples of other studies utilizing a symbolic interactionist framework report on some aspect of school or classroom culture from the students' perspective. Although few are recent, there are many examples of areas of research that have been influenced by symbolic interactionism. For example, on transfer from elementary to secondary school (Nash, 1973); students' adaptations to school (Woods, 1979); student sub-cultures (Ball, 1981); students' perspectives and classroom behaviour (Turner, 1983); fieldwork at an elite girls' school (Delamont, 1984); transfers between schools (Measor & Woods, 1984); teachers' life histories (Sikes, Measor, & Woods, 1985); teachers' coping strategies (Hargreaves, 1986); teachers' concerns about survival (Scarth, 1987); school-wide culture among female students (Hyde & Gess-Newsome, 1999); student perceptions of culture of science and socio-scientific dilemmas (Zeidler, Walker, Ackett, & Simmons, 2002); students' perceptions of academic dishonesty (Del Carlo & Bodner, 2004).

In her study, through observations and interviews, Smardon (2004) used symbolic interactionism to examine how urban students translated the codes of the street into the classroom. Sheese (2000) in describing a study at the post secondary level, suggested that the symbolic interactionist's approach is to examine the meaning of certain actions. For example, in the case of student absenteeism, lack of engagement and resistance to learning, the meaning for students (and teachers) of these actions and the meaning of the objects towards which they are directed should be explored. One could examine, for example, something as broad as the meaning of attendance, or something as specific as the meaning of a specific homework assignment. Sheese (2000) described individual meaning spaces as a multi-dimensional set of meanings attributed to the school and all related components and activities:

An understanding of a particular... student's meaning space might give considerable insight into their... behaviour, specifically, into choices regarding their degree of engagement with course meetings, assignments and other elements. It may be, for example, that from within certain meaning spaces, a lack of engagement is a very rational way to approach certain courses or elements of them. (p. 2)

From the perspective of a symbolic interactionist, as a researcher, one must actively be a part of the setting in order to observe the interactions of the individuals in the situation. Symbolic interactionism relies on participant observation. Ideally, the scholar of symbolic interactions should be a participant observer. As the sole researcher in this project and a senior administrator in the school district being studied, I was peripherally a part of the setting. However, I was not a member of the student groups, nor was I present on a daily basis as a teacher in the school. The knowledge gained is made available by the methods of participation and research. My decision to interview the students and videotape them enabled me to situate myself as close as possible to those being studied.

In addition to the symbolic language used to define the meaning of artifacts, objects, people and events, MacKinnon (2005) refers to individual "thought" as a third component of symbolic interactionism research in that we interpret these symbols in our own minds and try to assume the different points of view of the members of the group. I have acknowledged elsewhere in reporting this study that this third concept is also true for the researcher. The interaction, meanings and thoughts derived from the videotapes and transcribed text of the interviews are individually constructed, interpreted and interwoven with my own background, experiences, beliefs and values. However, the degree to which my meaning making aligns with those of the participants is likely much closer than for an individual who has no connection to the setting.

Symbolic interactionism describes “the intricate inter-relationships between the individual and society. Society makes the individual through creation of the self, mind, symbols, generalized other, perspectives, and symbolic role-taking. Conversely, it is the human individual who makes our human society through active interpretation, self-direction, role-taking, aligning his or her own acts with others, and communicating” (Charon, 1998, p. 232). In this sense, Prawat (1996) referred to an inherent tension between the social and the autonomous individual. However, he claimed, “the process of personal meaning making takes a backseat to socially agreed upon ways of carving up reality” (p. 220). Symbolic interactionism sees this interpretation as a social result that arises in the process of interaction between members of a group. Prawat further elaborates by suggesting that:

individuals engaged in joint action cannot help but attend to the ways co-participants, especially more knowledgeable co-participants, talk about and interact with objects in the environment. This jointly produced language and action becomes the basis for the taken-for-granted knowledge and practice.
(p. 220)

It is the behaviour emanating from the process of meaning-making resulting from the interactions among people, objects and events that symbolic interactionists hope to understand (Jacob, 1988). Constructivists assert that knowledge is personally constructed, but socially mediated (Brooks & Brooks, 1993; Brown & Duguid, 2000). It is difficult to embrace the notion of social constructivism (Taylor, Gilmer, & Tobin, 2002; Tobin & Tippins, 1993) without including social interactionism as a key element. Learning is meaning driven, socially situated, and identity forming (Brown & Duguid, 2000). Meanings are constructed in a social atmosphere in which the participants are engaged. Participants bring their own perspectives—historical, social experiences and backgrounds—in order to interpret and make sense of the world. Meaning making is an inductive, social process (Berger & Luckman, 1966; Brown & Duguid, 2002; Creswell, 2003, p. 20; Lincoln & Guba, 1985, 1986, 1987).

Mackinnon (2005) expressed a caution with respect to social environments and whether or not participants will give the researcher what they believe he or she would want to hear (p. 102). More appropriately, can sufficient trust exist to enable the researcher to capture the true feelings of the participants? This concern is noted with respect to the group interviews of students that I conducted in my research study. However, the similarity of many comments emerging from multiple and varied groups within the research design might mitigate some of these concerns. The micro-sociological approach of symbolic interactionism presents limitations to the macro level study of whole societies. This general criticism of symbolic interactionism applies to the idea of not being able to see the forest for the trees. Since meaning and reality within a particular social

context under study is situational and is, in itself, unique, symbolic interactionism does not create testable hypotheses or generalizable results. The inherent lack of generalizability, as with any qualitative study utilizing this theory for analysis, does not take away from the value of the theory. There is bias present in a study requiring participant observation as the researcher may also influence the interactions in a given situation. Consequently, emerging theories may be different when proposed by other researchers. Symbolic interactionism relies on the interactions among individuals in a setting and is, therefore, better used for comprehending specific social conditions and the members of these structures rather than trying to generalize to large-scale social institutions (Stryker, 1980).

With the appropriate cautions around the lack of generalizability, symbolic interactionism offers a useful conceptual frame for researching student engagement. Educational research framed by symbolic interactionism focuses on the social relationships that influence and shape learning in schools. Such studies contribute to the understanding of school climate and culture through an examination of participant interactions and relationships, for example, student-teacher and student-student (Herman-Kinney & Verschaeve as cited in Bodner & Orgill, 2007). Symbolic interactionism intends to reveal the processes and thinking behind the construction of meaning. It is most often used when a broad understanding of a particular sub-culture is needed. Such a culture represents the realities created by the members of that specific group.

2.14. Summary Table of Student Engagement

Table 4 summarizes the research cited with respect to influences on student engagement.

Table 4. Summary of Research

| Author(s) | Proposed influences on student engagement |
|--|---|
| Taylor & Parsons (2011) | General categories of engagement: academic, behavioural, cognitive, emotional, institutional, intellectual, psychological, social. |
| Kahn (1990); Adams & Matheson (2009); Hawkins et al. (2009); Heintzman & Marson (2005); Heskett et al. (1994); Macey & Schneider (2008); Scarlett (2011) | Workplace/employee engagement. Engagement as the “harnessing of organization members’ selves to their roles; in engagement, people employ and express themselves physically, cognitively and emotionally during role performances” (Kahn, 1990, p.694). |

| Author(s) | Proposed influences on student engagement |
|--|--|
| Harter et al. (2003) | Drew parallels between employee engagement and student engagement and suggested that, "engagement is a basic human need mediating the relationship between the environment and performance" (p. 6). |
| Lee, Bryk, & Smith (in Brady, 2005) | Identified two measurements of student success: (1) achievement and, (2) engagement. Defined engagement as "such positive behavioural manifestations as participation, connection, attachment, and integration into the school setting and its educative tasks" (p. 301). |
| Brady (2005) | Examined the effects of Ontario high school culture on achievement and engagement outcomes—showed that the school culture had less influence on student achievement, but significant impact on student engagement. |
| Anderson (1982); Brown & Duguid (2000); Malen & Rice (2004, p. 637); Pittman & Haughwout (1987); Willms (2003, 2007); Willms et al. (2009) | The development of engagement might be influenced by the interaction of identity forming, socially situated and meaning driven factors within a defined environment. |
| Fredricks et al. (2004). | Problems of poor achievement, student boredom, high dropout rates, and disaffection with school have pointed to teachers, researchers, and policy makers to pay greater attention to student engagement. |
| Newmann et al. (1992) | Described student engagement as the "psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote" (p. 12). |
| Earl (1998) | Student engagement is "participation in academic work, interest in school, care in completing work, motivation to succeed, attitudes towards school, sense of membership in school, and student's perception of a 'real world' connection to school" (p. 16) and "students' active involvement, commitment, and concentrated attention to their own learning" (p. 30). |
| Finn & Voelkl (1993) | Student engagement includes a behavioural element (participation) and an emotional element (identification). Participation includes attendance, active participation in class, time spent on schoolwork, extra-curricular activity, and student-teacher interaction. Identification is an internalized sense of belonging in school. |
| Nystrand & Gamoran (1989) | Procedural student engagement—refers to school rules and regulations, and substantive kinds of student engagement—continued commitment to learning. Lack of engagement affects student achievement; procedural engagement has less impact on achievement than does substantive engagement; substantive engagement has a strong positive impact on achievement. |
| Strong et al. (1995) | Suggested a teacher-centric, motivation-oriented approach to the concept of student engagement driven by goals and needs. Teachers need to employ certain strategies to motivate students to achieve these goals. |
| Steinberg et al. (1996) | Took a behavioural perspective—contemplated student engagement as a prerequisite to learning and describing engagement in terms of attending class, trying hard to do well, completing homework and not cheating. |
| Dei (in Butler-Kisber et al., 2003) | Criticized engagement research focus on "pathology of dropouts" (p. 209); proposed "inclusive schooling that integrates often conflicting knowledge/practices" (p. 209). |

| Author(s) | Proposed influences on student engagement |
|---|---|
| Leithwood & Jantzi (1998, 1999) | Examined the effects of leadership activities on student engagement and organizational conditions. The findings indicated strongly significant effects of transformational leadership on organizational conditions and only moderately significant effects on student engagement. The authors indicated significant variation in student engagement that might be explained by differences in family education as opposed to school related variables. |
| McMahon (in Butler-Kisber et al., 2003) | Suggested that, "Engagement stands for active involvement, commitment and concentrated attention, in contrast to superficial participation, apathy, or lack of interest" (p. 259). The researcher approached the perspective of student engagement from the point of view of student incongruence and dissonance with the values and practices of school and proposed a system that "celebrates and facilitates individualism, diversity, autonomy and empowerment" (p. 259). |
| Freire (1998) | Argued for teachers being engaged in learning and interrelatedness of students' responsibility for learning and requirements of teaching. |
| Portelli & Vibert (2002) | Referred to connections between students' communities and classrooms—described a "Curriculum of life" as a dynamic relationship among students, teachers, knowledge, and contexts. "Grounded in the immediate daily worlds of students as well as in the larger social and political contexts of their lives, curriculum of life breaks down walls between school and the world" (p. 38). |
| McMahon & Portelli (2004) | Called for more "focus on relationship between underlying goals and purposes of education in a democracy, and conceptions of engagement, teaching and learning" (p. 73). |
| Connell (1990, 1991); Skinner & Belmont (1993) | Viewed student engagement on a continuum from positively engaged behaviours towards learning to negative, passive, disaffected, and bored actions with respect to learning. |
| Earl et al. (2003) | The voices of students need to be heard as part of the data gathering exercise around any school renewal initiative, and as a component of engagement, this becomes an important precursor of student success. |
| Willms (2003) | PISA 2000 survey and assessment: Canadian 15-year-old students ranked 15 th out of 41 participating countries with respect to having a sense of belonging in school and ranked 26 th in level of participation in high school. |
| Corbett (2007) | Addressed decision-making issues of youth and argued that the phenomenon of differing identity orientations to space, place and mobility could be partially attributed to Bourdieu's (1997) concept of cultural capital. |
| Bushnik et al. (2002); Statistics Canada (1991) | Youth in Transition Survey and School Leavers Survey—reported that most students drop out for school-related reasons, such as being bored, or having problems with schoolwork or teachers. The disengaged students also believed that discipline was not handled equitably, that they were not respected, and that school was not a friendly place to be. |
| Bowlby & McMullen (2002) | Revealed a wide range of opinion between graduates and dropouts on several indicators of student engagement. Gender differential also of interest. |
| Willms & Flanagan (2007) | Student engagement—"It is a disposition towards learning, working with others and functioning in a social institution, which is expressed in students' feelings that they belong to school, and in their participation in activities" (p. 47). |
| Willms (2007) | Further defined student engagement: "measure of extent to which students identify with and value schooling outcomes, and participate in academic and non-academic activities"; includes disposition towards learning, future aspirations, working with others, and functioning in a social environment. |

| Author(s) | Proposed influences on student engagement |
|----------------------------------|--|
| Willms & Flanagan (2007) | Tell Them From Me (TTFM) survey. Reported that younger students have positive relationships with school staff and they feel a belonging with school. However, as adolescence continues, some students start to feel disaffected with school, they skip classes, they don't complete homework, they do not participate in school activities, they get into trouble and their academic success begins to falter. Some of these students drop out of school. |
| Fredricks et al. (2011) | Reported on the characteristics of 21 instruments that measured student engagement. The report described the purpose and use of each instrument, summarized what each measured and included psychometric information such as reliability and validity. |
| OECD (2010) | PISA 2006 survey and assessment—Canadian high school students ranked among the top 42 participating countries in Literacy achievement, but same students ranked 15th in students' sense of belonging and 29th in participation. |
| Hargreaves (2004, 2007, 2008) | Called for significant redesign and described the need to focus on deep learning, deep support, deep leadership, and deep experience through: assessment for learning, learning to learn, student voice, curriculum, new technologies, school design and organization, advice and guidance, mentoring and coaching, and workforce development. |
| Taylor & Parsons (2011) | Described the necessary conditions for engaging students in their schooling: 1. [Providing] learning experiences that are relevant, real, and intentionally interdisciplinary; 2. [Employing] technology-rich learning environments; 3. [Creating] positive, challenging, and open "transparent" learning climates; 4. [Collaborating through] respectful "peer-to-peer" type relationships between students and teachers (horizontal organization model); 5. [Developing] a culture of learning—teachers are learning with students" (p. 26). |
| National Research Council (2004) | Reported on Engaging Schools and referred to the importance of the reciprocal nature of adult-student relationships. |
| Vibert & Shields (2003) | "Engagement, separated from its social, cultural and political contexts, is a contradiction that ignores deeply embedded understandings about the purpose and nature of engagement itself" (p. 225); categorized student engagement into three dimensions: Rational-Technical, Interpretive-Student-centred, and Critical-Transformative. |
| McMahon & Portelli (2004) | Categorized student engagement into three dimensions: Conservative-Traditional, Liberal-Student oriented, and Critical-Democratic engagement. |
| Fredricks et al. (2004) | Categorized student engagement into three dimensions: Behavioural, Emotional and Cognitive engagement |
| Willms et al. (2009) | Categorized student engagement into three dimensions: Social, Academic, and Intellectual engagement. What Did You Do In School Today? (WDYDIST) survey. Student engagement is extent that students identify with/value schooling outcomes, have a sense of belonging at school, participate in academic/non-academic activities, strive to meet formal requirements of schooling/make a serious personal investment in learning. |
| Dunleavy & Milton (2009) | Social Engagement: "participation in the life of school"....It is a "combination of students' sense of belonging at school, their acceptance of the goals of schooling, feelings of being connected to and accepted by peers, and experiences of relationships with adults" (p. 8). |
| Dunleavy & Milton (2009) | Academic or Institutional Engagement: participation in the formal requirements of schooling and expectations for academic success. Credits attained, post secondary plans, having a responsibility for learning, homework completion, work performed in class, attendance, tardiness, participation in class and impressions concerning the value of education. |

| Author(s) | Proposed influences on student engagement |
|--|---|
| Newmann et al. (1992) | Academic or Institutional Engagement: “student’s psychological investment in and effort directed toward learning, understanding or mastering the knowledge, skills, or crafts that academic work is intended to promote” (p. 12). |
| Willms et al. (2009) | Intellectual Engagement—deep “emotional and cognitive investment in learning, using higher-order thinking skills to increase understanding, solve complex problems or construct new knowledge” (p. 7). |
| Pope (2003) | Low engagement, at the very least, may cause a lack of interest, boredom, and disconnectedness where students just jump through the hoops of schooling and are simply “doing school” (p. 150). |
| Friesen (2009) | Instructional Challenge—an “absorbing, creatively energizing focus requiring contemplation, interpretation, understanding, meaning-making and critique. (It is) learning that invites students to engage intellectually (and) awaken the human spirit’s desire to know (resulting) in a deep, personal commitment on the part of learners to explore and investigate ideas, issues, problems or questions for a sustained period of time” (p. 4). |
| Broadie (2002); Csikszentmihályi (1990, 1997); Shernoff (2002) | Flow—described as the mental state of optimal experience in which the person is fully immersed in what he or she is doing. |
| Shernoff et al. (2003) | Described three variables within student engagement that are conducive to achieving a state of flow: Concentration—individuals should be deeply absorbed in an activity in order to optimize learning; Interest—students need to be interested, motivated and curious about the task in order to stay committed and developmentally prepared for deeper learning; and Enjoyment—students should gain satisfaction, enjoy the task, and feel a sense of accomplishment (p. 161). |

2.15. Summary

Yeah, so the first time we actually started thinking about careers was in Grade 7. Yeah they like, we did a project on three most, like careers, and when you’re in Grade 7 you don’t really know any better so you pick the one with the most pay right? Doctor, lawyer or whatever right? So that’s what I picked and then I realized, and then I’m like sure why not. And then once I got into Grade 9/10 um even though I was good at Science, I didn’t really like it, like Bio’s boring, I can’t take it right? Chemistry. Same thing. And then, and then, in Grade 9 I think I took a business course and I liked that because it relate, you can relate it like, in a lot of the business courses you, what you do affects your life. You can relate, like, right now with the economy—thanks to that business course, I actually understand some of the things that are happening. So yeah, I think I probably want to go into business and do commerce maybe.
(Balvir, Grade 10)

My intent through this chapter was to review relevant scholarship concerning the various conditions, which may affect the development of student engagement and their success in school. I have provided a general review of the literature with respect to the possible factors influencing the development of student engagement in schooling. Research studies pertaining to

student engagement described in this chapter were organized within three perspectives: traditional, social-democratic and student-centred. In the research for this thesis, I chose to pursue the concept of student engagement in school from a student's perspective. I further described the work of Csíkszentmihályi (1990) and his research into the concept of Flow. I believe that the notion of flow might be useful in clarifying the extent to which students might become fully engaged in their learning through greater use of instructional challenges. This might be realized by enhancing the relationship between challenge and skill on a more personalized, student-by-student basis.

Social and environmental factors were also described as antecedents to a possible organizing framework. These included school and classroom climate and culture, which deals with the ecology within an organization including the physical and material aspects and the social dimension concerned with the social milieu of persons and groups; and school capacity, which refers to opportunities for people to acquire new ideas and examine the consequences of their actions and ideas about success.

The influence of school population size on the development of student engagement was of interest to my study. It is a topic of on-going research and discussion with no clear delineation of the optimum school size given tensions between the challenge of access to programs and the opportunity for closer relationships in smaller schools. The lack of clarity in the research because of differences in context such as rural/urban and grade level being considered makes it difficult to draw conclusions from existing research.

This study did not delve into student characteristics and family background such as family structures and socio-economic status, although gender and grade level was a consideration. Health and wellness outcomes including lifestyle behaviours, anxiety, depression and physical activity were also not considered in my study. Similarly, academic achievement measures were not a focus of my research, although aspirations to graduate and pursue post secondary education were of interest as factors affecting student success. My research is primarily concerned with the school and classroom environment including dimensions such as effective learning time, student/teacher relationships, disciplinary climate, teacher expectations for success, and the degree of instructional challenge. My review of the literature described three areas of student engagement. These include academic or institutional engagement, social engagement including students' sense of belonging in school, and intellectual engagement.

Two useful theoretical perspectives were also reviewed as background to the study. The concept of social capital from a scholastic perspective represents the extent to which the school is viewed as a community, particularly one that promotes collaboration in achieving school

goals—whether and how initiatives affect staff stability and foster an environment characterized by trust, collegiality, and collaboration. It refers to the networks or relationships among and between the school, teachers, students, parents and the community, which provide the means for educational advancement. Symbolic interactionism refers to the meanings assigned to objects and events in the world arising out of the social interactions taking place in a particular setting. This meaning-making perspective holds that individuals act toward objects and events on the basis of the meanings that these phenomena have for them. Such meanings are derived, modified and interpreted through a process of social interaction within the group. The conditions giving rise to social capital are encompassed through the symbolic interactions taking place among the students in the setting of two secondary schools (larger and smaller) in one urban British Columbia school district.

Chapter 3, which follows, describes the research methods employed in this study. Following a brief outline of the mixed methods approach utilized, the nature of the research setting is described. The next section explains who participated in the study and how the survey of high school students was organized, conducted and coordinated. This section also provides detail on the group interview process, and the coding and analysis methods. The chapter ends with a discussion of the limitations of the study.

3. Method

It's engagement in what you're doing. I find that the classes I get most out of and the classes that I have most fun in are not necessarily where the teacher knows the most or when they're the most prepared for the class but when they actually involved you in what they're doing. When they're entertaining you know. Like when it's fun to watch and then you realize that you're enjoying what you're doing and then, and then you learn... as opposed to just kind of getting fed it. Yeah! (Charlie, Grade 11)

3.1. Introduction

This chapter describes the methods followed in my study, which examined from students' perspectives what constitutes engagement in school. The research followed a mixed methods approach utilizing data from a national Canadian survey of high school students followed by semi-structured group interviews with students at two secondary schools in one school district.

I was considered to be an insider within the Fraserview School District, the site of the research reported in this thesis. This brings a certain level of challenge, as I was also a long time senior member of staff and a supervisor in the system. As a researcher, I felt comfortable in working with parents, staff and students and did not see a difficulty in establishing the necessary trust and rapport with the student participants. This was eventually evident given the depth and nature of the student responses to my questions. In my supervisory capacity, it is possible that administrators in the system felt obliged to accommodate my research requests. However, they did not show any indication of this and assisted where necessary as they also participated voluntarily in other discussions about student engagement.

The study described here can be considered to be a mixed methods approach (Cresswell, 2003). The qualitative aspect of the study was designed to hear the voices of the student participants as a means of exploring their sense of engagement with the school and as a potential source of insight about the construct of student engagement itself (Fielding, 2001; Glesne, 1999; Merriam, 1988).

The procedure in my research for this thesis was to examine the perspectives of students through a survey and semi-structured group interviews. The research was limited to two high

schools in the same urban school district with the intended focus on the largest and smallest enrolled schools. The high schools with the largest and smallest student populations were chosen because I was also interested in the possible relationships between school enrolment size and student engagement.

There is also a pragmatic element to this study. It is practical in the freedom provided through mixed methods research to utilize what works at the time (Creswell, 2003, p. 12). In their study of the stratification effects in secondary schools and associated synthesis of qualitative research, Gamoran and Berends (1987) advocated utilizing mixed methods research because of the mutual benefits of qualitative and quantitative approaches. For many decades, discussion among scholars has centred on the appropriateness of using the more quantitative experimental and survey research paradigms versus qualitative approaches in education. However, Lincoln and Guba (1987) approached the problem from a moral and ethical point of view. They argued for an “emergent-paradigm” stating that such an inquiry focuses:

Upon realities as multiple, divergent social constructions, the search for a single “reality” is avoided...the emphasis on utilizing, rather than compensating for, the interactivity of researcher and respondent, creates the conditions for participants in research processes to retain their locus of control individually, (and) to make informed decisions regarding their participation and to have substantial agency in shaping the processes and results of the research on their lives. (p. 36)

3.2. Approach

Patton (2002) responded to the perennial graduate student question: “What approach is right?” by suggesting that there is no “right” approach and that there is “no definitive way to categorize the various philosophical and theoretical perspectives that have influenced and that distinguish types of qualitative inquiry” (p. 77). Patton further suggested that the distinctions could be somewhat “arbitrary” and that distinguishing “foundational questions” can better serve to understand and contrast these approaches (pp. 77-80). Others, including me, feel much the same way in terms of the myriad approaches and contradicting terminologies. Niglas (2001) described a feeling of being “quite lost” after having read various methodological texts and papers and trying to make sense of the “dizzy” multitude of different partially overlapping terms connected to research methodologies and paradigms—newer non-positivistic and qualitative ways of doing social scientific and educational research. For example, Niglas (2000) comments about a lack of terminological and conceptual clarity and coherence with regard to “mixed methods.” She indicated that one problematic word, “method,” is more often, but not always, connected with concrete data gathering and analysis techniques rather than to complete methodological issues.

Creswell (2007) treats umbrella or category terms such as case study, ethnography, grounded theory, phenomenology, and narrative research as “Approaches” or “Strategies of Inquiry” (p. 10). Miles and Huberman concluded that the wide ranging taxonomy and catalogue of qualitative perspectives is mind boggling and turns out to be “basically incommensurate” both in definition and in distinguishing criteria (as cited in Patton, 2002, p. 133).

Following the direction of Niglas (2000, 2001) and Patton (2002), I chose to take a broad perspective. Patton suggested that from a pragmatic, utilitarian perspective, not all questions are theory-based. I take a pragmatic stance in this study. I am what might be termed, a scholar-practitioner: studying, researching and living in the daily world of praxis. In an Aristotelian sense, I draw upon my accumulated phronetic wisdom, and subscribe to the informed, pragmatic principle of doing “what works” within the constraints of ethical considerations.

3.3. Mixed Methods Research

In comparing the two traditions, quantitative and qualitative, a number of differences emerge. However, the nature of the research problem in the main determines the approach. The research questions should shape the choice of methodologies. Either approach, quantitative or qualitative, or a combination of the two through mixed methods, can be appropriate for a given research focus. Researchers distinguish the two traditional methodologies according to differing emphases and attributes (Cassell & Symon, 1998; Niglas, 1999; Patton, 2002).

Qualitative studies consider the participants in their own settings and seek their participation through the data collection. Qualitative research permits the documentation of deeper descriptions, which can reveal unanticipated differences, idiosyncrasies, nuances and uniqueness. The school is often viewed as the heart of the neighbourhood and soul of the community. Feiman’s (1977) classic study of teacher centres is an example of this diversity uncovered through a qualitative approach. Her work showed that, in spite of common goals, funding, structures and labels, the centres under study emerged as three very different types: humanistic, behavioural and developmental. Similar examples can also be found in Perrone’s (1991) *A Letter to Teachers: Reflections on Schooling and the Art of Teaching* and Lawrence-Lightfoot’s (1983) *The Good High School: Portraits of character and culture* in which, through portraiture, she helped readers gain a sense of the how the high school is contextually an integral part of the neighbourhood, the community and the people who live there. Such distinguishing and varied characteristics might not have been fully exposed through a solely quantitative approach (Patton, 2002, p. 165).

There has been a long history within the social sciences of advocating for the use of mixed methods research (Campbell & Fiske, 1959; Creswell, 2003, p. 53; Gall, Gall, & Borg, 2007; Tashakkori & Teddlie, 2003). However, acceptance of the approach as a distinct method is a relatively new phenomenon in the social sciences. In fact, it is reported that some journals still tend to specialize by method and so tacitly discourage this approach (Gable, 1994). Possible reasons for this stand include doubts over the legitimacy or feasibility of combining positivist and interpretive approaches, practical concerns over contradictory results and value-based researcher commitment to a particular research methodology (Smithson as cited in Gable, 1994).

In order to better explore and understand a relatively intangible concept such as student engagement, my study utilized a pragmatic approach situated within the continuum of quantitative and qualitative practices utilizing a mixed methods research design (Cresswell, 2003; Jick, 1979; Newman & Benz, 1998; Tashakkori & Teddlie, 2003). As Tashakkori and Teddlie have proposed, mixed methods designs incorporating techniques from both the quantitative and qualitative research traditions, “will be the dominant methodological tools in the social and behavioural sciences during the 21st century” (p. x).

Fine and Elsbach suggested that qualitative and quantitative researchers in social research “can and should collaborate” (as quoted in Stolte, Fine, & Cook, 2001, p. 410). They advocate that both camps should work together for mutual benefit on common investigations. Both data-gathering methods can assist in providing direction for research of social psychological problems. The strengths and limitations of each can complement the other. Consensus among researchers suggests that both qualitative and quantitative methods can be complementary (Gall et al., 2007). There are benefits in using both the quantitative research paradigms and the more naturalistic research paradigms. The notion of “complementarity” or “synergistic payoffs” in utilizing both approaches has merit (Roberts, 1982) and has been successfully used by others (Connelly, Crocker, & Kass, 1985; Gamoran & Berends, 1987; Orpwood & Souque, 1984). Mixed methods approaches are practical in the freedom provided to utilize what works at the time or in a given context (Creswell, 2003, p. 12).

Utilizing mixed quantitative and qualitative methods can mitigate biases inherent in any particular method. The ability to triangulate data and make comparisons enhances the approach. It yields comparable data enabling cross validation. Triangulation, originating in the military and navigational arena for locating exact positions, is generally defined as a combination of methods in the study of the same phenomenon (Denzin as cited in Jick, 1979, p. 602). *Within methods* might include the use of multiple questions focusing on the same construct. Both examples would be intended to provide internal consistency and reliability. However, this is still a 1-method

approach and so has built-in limitations. In a *between methods* approach, the triangulation addresses external validity.

Another result stemming from between methods, rather than convergent approaches, is that it creates a greater awareness of the phenomenon in a holistic sense—illuminating that which might otherwise not be seen. The ability to integrate field studies with survey data has long been advocated by social scientists (Burke-Johnson & Onwuegbuzie, 2004; Greene, Caracelli, & Graham, 1989; Jick, 1979; Sieber, 1973). There are limitations, however, in the triangulation strategy. Replication is very difficult. The choice of method may not fit the research purpose, and there are additional costs in time and resources (Table 5).

Table 5. Reasons for Conducting Mixed Methods Research

| | |
|------------------------|---|
| Triangulation | Searching for corroboration and convergence of the findings from several approaches after studying the same phenomenon. |
| Complementarity | Searching for elaboration, enhancement, illustration, and clarification of the findings from one approach with results from another approach. |
| Initiation | Finding paradoxes and contradictions that cause a reframing of the research question. |
| Development | Utilizing the results from one approach to inform the other approach. |
| Expansion | Seeking to broaden the range and depth of research by using different methods for different elements of the study. |

Note. Adapted from Greene et al., 1989.

Several strategies are possible in using a mixed methods design depending on the relative emphasis of the qualitative or quantitative research and the time-order sequence (Bryman as cited in Niglas, 2000; Burke-Johnson & Onwuegbuzie, 2004; Creswell, 2003, pp. 16 and 211; Greene et al., 1989; Morgan, 1998; Tashakkori & Teddlie, 2003, p.195). The researcher may collect the data in phases sequentially or concurrently, usually with the analysis of data from one method informing the development of the second method as in the use of the results of a survey to shape the questions then used in an interview. The researcher might give priority to one form over another depending on the area of interest, order and nature of the study. The researcher might also integrate the data, for example, by assigning codes to interview data and then analyzing this through quantitative means.

The study described for this thesis followed a sequential explanatory strategy and utilized a relatively broad survey that helped inform the development of questions for the semi-structured group interviews (Marková, Linell, Grossen, & Salazar Orvig, 2007; Morgan, 1997; Stewart, Shamdasani, & Rook, 2007). Attributes of qualitative research provide indicators as to why this

particular approach was selected. The study was conducted in situ within the natural setting with direct contact with the participants. This approach with multiple perspectives permitted more opportunity for interpretive inquiry (Creswell, 2007, p. 39).

3.4. Research Setting

This research project was conducted as an in situ study examining student engagement in two Grade 8 to 12 secondary schools in Fraserview School District, a mid-sized urban district with an overall student population of approximately 15,800.

Fraserview School District includes three culturally diverse communities and serves a population of about 100,000 people. It is located in a suburb of a large metropolitan region. The two schools studied were Smallville Secondary School located in one of these communities and Grand-River Secondary School located in another local community. Smallville had a reported enrolment of 603 students in June 2009 and Grand-River had a population of 1,450 students in June 2009.

Table 6 indicates the regular program enrolments of the seven secondary schools within the Fraserview School District during the period of my study, excluding Alternate and International students—considered to be occasional.

Table 6. Fraserview School District enrolments, June 2009

| School | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 | Total |
|--------------|------------|------------|------------|------------|------------|-------------|
| Fireside | 178 | 141 | 129 | 157 | 118 | 723 |
| Grand-River | 264 | 287 | 296 | 310 | 293 | 1450 |
| Smallville | 140 | 119 | 122 | 102 | 120 | 603 |
| Northlands | 257 | 244 | 218 | 207 | 174 | 1100 |
| Beachside | 141 | 126 | 152 | 154 | 148 | 721 |
| Cedarvale | 218 | 243 | 284 | 249 | 258 | 1252 |
| Southlands | 244 | 266 | 229 | 224 | 222 | 1185 |
| Total | 1442 | 1426 | 1430 | 1403 | 1333 | 7034 |

3.5. Survey Research

I chose to utilize a pre-determined set of questions as part of a validated large-scale Canadian national survey instrument, WDYDIST (Willms et al., 2009), which was the result of a multi-year initiative funded by the Canadian Council on Learning (CCL)⁶ and developed by the CEA⁷ in collaboration with the Galileo Educational Network⁸ and The Learning Bar Inc.⁹ The WDYDIST survey extended work and utilized similar questions previously constructed by Dr. Willms and validated at an international level by the OECD for PISA 2000 (Willms, 2003). The WDYDIST survey also incorporated aspects of the Tell Them from Me (TTFM) survey developed by The Learning Bar associated with the University of New Brunswick and coordinated through the Canadian Research Institute for Social Policy.¹⁰ The TTFM survey was influenced by Lezotte's correlates for effective schools (Lezotte, 1991). The TTFM school survey utilized reliable and valid measures of known factors that affect achievement based on internationally recognized research and survey methods conducted by Douglas Willms, Canada Research Chair at the University of New Brunswick, an elected member of the U.S. National Academy of Education and President of The Learning Bar.

The partners within the WDYDIST initiative have argued that when students are engaged in their learning, their educational experience improves. The improvement requires the active participation and engagement of their teachers and the teaching practices they adopt. These practices include intentional instructional design for learning that deepens understanding and provides for genuine inquiry; required student work that is meaningful, relevant, and real; assessment practices that are designed for improved learning and are used to guide teaching; the development of a positive classroom disciplinary climate with trusting and respectful relationships; and peer to peer guided teaching practice (Willms et al., 2009, p. 34). The partners in the WDYDIST survey further contended that closing the high school completion, student engagement and achievement gap among different groups of adolescent learners in Canada, while at the same time raising the learning bar of academic excellence, can be attained through consistent use of challenging instructional practices that incrementally provide sufficient challenge to match the level of skills required of our students (WDYDIST, 2008). The authors of the

⁶ <http://www.ccl-cca.ca/ccl>

⁷ <http://www.cea-ace.ca>

⁸ <http://www.galileo.org>

⁹ <http://www.thelearningbar.com>

¹⁰ <http://www.unb.ca/crisp>

WDYDIST survey constructed the survey based on research findings from studies of engagement and achievement.

The design of the WDYDIST survey enables generalization from a sample sub-population to a larger population in order to infer characteristics about that population (Babbie, 2001). The economy of action gained by utilizing cross-sectional survey data collected at one time, and the rapid feedback possible in using web-response, sample data as an indicator of the larger population offers a rationale for selecting the survey method (Babbie, 2001; Fowler 2002; Leonard et al., 2001; Renihan & Sackney, 1998; Sieber, 1973). Creswell’s writing about the design and planning of surveys (2003, p. 155) further informed my approach to the research design. The characteristics of the population and sampling procedures described in Babbie (2001) also helped influence my choice of the survey as one part of the data to address my research question. The format for my data collection was through a self-administered, web-based questionnaire summarized in Appendix A (Fink, 1995; Nesbary, 2000; Willms & Flanagan, 2007; Willms et al., 2009). Ultimately, the currency and availability of the Canadian designed WDYDIST survey influenced my choice of this particular survey over a self-constructed survey or the use of a survey from another study.

The national WDYDIST survey (Willms et al., 2009) used in my study was designed to provide data on 21 separate indicators on three composite measures: student engagement, school and classroom climate, and student health and wellness. The indicators are listed in Table 7.

Table 7. Indicators within the Three Dimensions of Student Engagement

| Student Engagement | School and Classroom Climate | Student Health and Wellness |
|---|---|---|
| <ul style="list-style-type: none"> • <i>Sense of belonging</i> • <i>Participation in sports and clubs</i> • <i>Classroom engagement</i> • <i>Post secondary aspirations</i> • Time spent on volunteering • Time spent on homework • Time spent on leisure reading • Time spent on television • Time spent on computers • Time spent on video games • Time spent on working part-time • Truancy rate | <ul style="list-style-type: none"> • <i>Teacher-student relations</i> • <i>Disciplinary climate</i> • <i>Effective learning time</i> • <i>Expectations for success</i> • <i>Instructional challenge (flow)</i> | <ul style="list-style-type: none"> • Depression • Anxiety • Smoking • Time spent on physical activity |

Note. Summarized from Willms et al. (2009) and WDYDIST (2009). The primary areas of interest for the study reported here are italicized. See also Appendix B.

The primary focus area of my study was on student engagement, and connections of school and classroom climate. I chose to not focus on the third student health and wellness indicator. Some indicators within the engagement category were of lesser interest as they were viewed to be more associated with life outside of school. Each of the indicators is described below. The relevant questions are found in Appendix A.

1. **Student Engagement.** “Researchers use the term engagement as a global measure to refer to the extent to which students identify with and value schooling outcomes, and participate in academic and non-academic activities. Engagement is related to academic achievement, but scholars consider it to be an important outcome in its own right. It embodies a disposition towards learning, working with others, and functioning in a social institution” (Willms, 2003). Student engagement can be affected by parents and teachers, and shaped by school policy and practice. The survey was designed to examine responses related to the construct of engagement through five components: sense of belonging at school, participation in school clubs and sports, educational aspirations, school attendance, and valuing school outcomes. The survey instrument also asked about the amount of time students spent on homework, reading for leisure, using television and music players, computers, and video games. Sense of belonging was viewed as a key component of student engagement and was shaped by students' attachment, feelings of being accepted and being valued by their peers at school.
2. **School and Classroom Climate.** The School and Classroom Climate was designed to explore students' aptitude for learning, motivation, perseverance, their perceptions of the level and quality of instruction, amount of instructional time, and quality of the school's resources.
3. **Student Health and Wellness.** The Student Health and Wellness component of the survey measured the emotional, social, and physical health of youth. These factors are viewed by the authors of the survey as closely linked to students' engagement in school life and to their learning outcomes. The survey includes indicators of self-esteem, self-respect, time spent on physical activity, bullying, depression, anxiety, and smoking.

3.5.1. Conducting the Survey

The national WDYDIST study began in Canada in 2007-2008. In the first year, 32,322 students in Grades 5 to 12 attending 93 schools in 10 school districts in the provinces of Alberta, Saskatchewan, Manitoba, Ontario, and Nova Scotia, participated in the WDYDIST survey (Willms et al., 2009). In 2008-2009, about 45,000 students in Grades 6 to 12 attending 140 schools in 15 school districts in British Columbia, Alberta, Manitoba, Ontario, Quebec, Nova Scotia and Newfoundland participated. The results of the national survey served as a baseline of comparison for participating schools and school districts.

Students in Grades 8 to 12 at all seven Fraserview School District secondary schools took part in the school district WDYDIST survey between February and May 2009. The results of

the survey were released to the school district in September 2009. The survey took about 30 to 40 minutes to complete and students responded anonymously to 100 on-line Likert scale formatted survey questions organized into three categories: Student Engagement, School and Classroom Climate and Student Wellness. The primary focus areas of my study were student engagement and school and classroom climate.

I chose to not use data from 18 questions on the survey for the section pertaining to student wellness: anxiety, depression, smoking and time spent on physical activity. I also chose to not use data collected on 10 questions that asked about homework, tardiness and absenteeism, and leisure time such as using computers, reading, watching television, volunteering, and having a part-time job. These were not areas that I pursued in the interviews and I was not confident that the data from the survey would be useful. In retrospect, the data on being late to school and skipping classes would have been useful if compared to similar data collected by the school.

In addition, students had the opportunity to respond to one national level open-ended question and two locally determined questions (Table 8). One local question was set at the district level and individual participating schools could determine their own question. I did not influence the writing of the school-based question. Some schools (including Smallville) did not add a school choice question, as this was optional. Some schools did not share their school question with me. The district level question was developed with my collaboration. I asked the same question (and sub-questions) during my grouped semi-structured interviews. While interesting and useful as an area for follow-up, I did not use the data from the open-ended questions. In retrospect, it would have probably been better to ask a single question on the open-ended survey rather than a compound question. As a result, the data were difficult to analyze. While I chose to not use the open-ended questions in my study, it would be interesting to extend the analysis using web-based tools such as *Wordle*[™] (Feinberg, 2011), *TagCrowd* (Steinbock, 2010) or *Many Eyes* (IBM, 2010).

Table 8. Summary of National and Local Open-Ended Questions

| | |
|--------------------------------------|--|
| National Question | Please tell us some of the things you really like about your school, or things that would make it even better |
| School District Question | What do you consider to have been your best learning experience? Can you describe where and when it happened? Why do you remember this particular learning experience? |
| School Question (Grand-River) | What do the students and staff at Grand-River value? What are the sources of school pride? |

Note. WDYDIST, 2009.

3.5.2. Coordination of the Survey

The determination to conduct the WDYDIST survey was a district staff decision. Because of my involvement in the study, I delegated the survey process to an Assistant Superintendent. The Assistant Superintendent explained the District's rationale for conducting the survey with the Board, District and school staff (including school administrators), parents and the local teachers' union. The Assistant Superintendent assigned coordination of the process to a District staff person who was responsible for the participation, encouragement and support of the school-based survey coordinator. The District Coordinator also supported the schools in using the data to enhance their school improvement plans.

The District Coordinator was tasked with coordinating the survey project. The coordinator, along with representatives from the WDYDIST national team, met with the principals of the secondary schools to review the process. The District Coordinator provided liaison between the national project and the schools, facilitated communications, supported school-based survey coordinators in scheduling students to complete the survey, monitored survey completion, and made arrangements for the orientation and follow up discussions. The District Coordinator and Assistant Superintendent also took a team of staff and students to a follow up conference held in Winnipeg. Each school appointed a survey coordinator—typically, this was the vice-principal or a staff member with a lead responsibility for school improvement initiatives, who ensured students were scheduled to take the survey, monitored the school's results, supported reporting to students and staff, and played a role in the use of the results by the school staff. The school survey coordinator also assisted with managing the student records and uploading the required student data. I did not have access to any individual data, but I had on-line access to school level data that was provided according to the actual school name. The data could be saved as a PDF file or screenshot.

The survey was completely anonymous. Requests for detailed data were not released for sets of fewer than 10 to 15 students in order to prevent potential student identification, and no forms of personal identification were maintained in the database as none was requested at the start. Schools had access to their own data, national trend lines over time comparisons and comparisons with a hypothetical "replica" school constructed by matching student characteristics on a national basis. This was the second year of conducting the national survey. Through their Principals, schools also had a complete record of all student answers to open-ended questions again completed anonymously. It was not possible to link survey responses at the student level to other student databases because all participants had been guaranteed anonymity and all identifiers were stripped from the data when the survey was submitted.

Results were provided to the District Coordinator, school principals and school-based survey coordinators through a secure Canadian website. The data was compiled in a single report with graphed comparisons for each indicator category. Each indicator was plotted as a bar graph against national norms with lines depicting the 75th median and 25th percentiles of all schools participating. A District level report and similar school level reports were also available. The school level reports were somewhat interactive in that the data could be accessed in more detail by drilling down on select indicators or choosing all indicators. Mean scores for the school for each category was provided through this option. Gender or grade-level graphs could also be generated. More detail could also be accessed by drilling down and comparing gender or grade for Aboriginal and non-Aboriginal students (noting that results in categories for schools with fewer than 10 to 15 students in any sub-category were masked). It was also possible to select a national trend line for high schools (or middle schools) and a school replica line as well. A replica school is a virtual school comprising students with the same characteristics as the participant school's students (socio-economic status, family structure, grade, gender), drawn from the national database of students who completed the survey during the previous year (Willms et al., 2009, p. 10). The demographic data to determine socio-economic status of students was collected through specific questions in the student survey and through the initial student data uploads. While some demographic questions were asked, I was not provided with this level of detail. These questions are also included in Appendix C.

3.5.3. *Participation in the Survey*

The sample size for the national WDYDIST survey was very large given that 32,322 students participated across Canada. Between February and May 2009, 5,217 secondary students from the Fraserview School District completed the district-wide administered survey representing a large sampling. The sample size for Fraserview School District was also large compared to the national survey and represented almost 100% of students attending the seven high schools in the district.

Of the completed surveys, there was a relatively even spread across all five grade levels for both schools in this study. At Smallville Secondary School, 461 surveys were completed out of a possible 532 surveys that were administered for an 86.7% completion rate (Table 9). The enrolment for the school at the time was 603, but some students were excused or absent due to illness, field trips, and scheduling difficulties or were otherwise unable to complete the survey. At Grand-River 1,381 surveys were administered and of these 1,176 were completed for an 85.2% completion rate (Table 10). Similarly, the total student population was 1,450, but some students did not write the survey.

Table 9. National and Local Survey Participation and Completion Rates by Grade

| Fraserview School District | Grade 5 | Grade 6 | Grade 7 | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 | Total |
|----------------------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Fireside | 0 | 0 | 0 | 158 | 114 | 112 | 136 | 74 | 594 |
| Grand-River | 0 | 0 | 0 | 213 | 238 | 252 | 268 | 205 | 1176 |
| Smallville | 0 | 0 | 0 | 112 | 90 | 94 | 84 | 81 | 461 |
| Northlands | 0 | 0 | 0 | 215 | 200 | 189 | 151 | 110 | 865 |
| Beachside | 0 | 0 | 0 | 128 | 111 | 134 | 87 | 122 | 582 |
| Cedarvale | 0 | 0 | 0 | 106 | 115 | 137 | 84 | 108 | 550 |
| Southlands | 0 | 0 | 0 | 190 | 235 | 169 | 203 | 188 | 985 |
| Total | 0 | 0 | 0 | 1122 | 1103 | 1087 | 1013 | 888 | 5213 |
| Canada | 176 | 2333 | 4933 | 4917 | 6482 | 4972 | 4309 | 4200 | 32322 |

Note. Students in Grades 5 to 7 students did not participate in the survey for Fraserview School District.

Table 10. Local Survey Participation and Completion Rates (Fraserview School District)

| Fraserview School District | Total enrolment June 30, 2009 | Number of students expected to complete the survey ^a | Number of surveys completed | Percent completed of expected completion |
|----------------------------|-------------------------------|---|-----------------------------|--|
| Fireside | 723 | 695 | 594 | 85.5 |
| Grand-River | 1450 | 1381 | 1176 | 85.2 |
| Smallville | 603 | 532 | 461 | 86.7 |
| Northlands | 1100 | 1084 | 865 | 79.8 |
| Beachside | 721 | 751 | 582 | 77.5 |
| Cedarvale | 1252 | 851 | 550 | 64.6 |
| Southlands | 1185 | 1128 | 985 | 87.3 |
| Total | 7034 | 6422 | 5217 | 81.2 |

^a excludes special needs, ESL and excused students.

3.6. Structure and Sample Survey Questions

Figures 5 and 6 are screenshots that illustrate the structure and some sample questions for the national WDYDIST survey. While there are specific categories of questions, the questions are presented in a mixed arrangement. All questions from the survey are found in Appendix A and B.

Figure 5. WDYDIST Survey (2009): Sample Set A of Questions

WHAT DID YOU DO IN SCHOOL TODAY?

[Home](#)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21

Please click the option that best describes how you feel.

Please skip the questions on this page if you are not taking a math class this term.

We want you to think about the *math* classes you have had over the past two weeks. How often did these things happen in your *math* classes?



| | Never or Hardly Ever | Sometimes (in some but not all classes) | Often (in most classes) | Very Often (in almost every class) |
|--|-----------------------|---|-------------------------|------------------------------------|
| We memorize definitions and rules. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| We interpret graphs or charts. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| We apply math concepts to real-world problems. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| We examine the ideas underlying math concepts. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| We look at different ways of solving a problem. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| We create problems that require the use of the concepts we have learned. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Figure 6. WDYDIST survey (2009): Sample Set B of Questions



[Home](#)

12345678910111213141516

1718192021

Please click the option that best describes how you feel.

| | Strongly Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Strongly Agree |
|---|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|
|  In our school | | | | | |
| Class lessons are well organized. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Teachers get along well with students. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| It is usually easy to concentrate in class. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Teachers expect homework to be done on time. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Teachers help us understand important concepts. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Teachers show an interest in every student's learning. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Teachers maintain control of the class. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Students are clear about what is expected of them for their courses. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



3.7. Interview Method

A word is a microcosm of human consciousness.

(Vygotsky, 1986, p. 256)

According to Schensul, LeCompte, Nastasi, & Borgatti (1999), a focus group interview is characterized by a setting where a researcher conducts a discussion with a group of individuals (p. 51). The authors distinguished between this and a focus group stating that the latter has a more specific purpose as a subset of focus group interviews, for example in product marketing research. For the purposes of the study reported here, I will simply refer to the interviews as *group interviews*. The interviews can be formal or informal and occur in natural or at off-site locations. The researcher typically guides the interviews and can utilize structured, semi-structured or unstructured questioning. The interviews conducted in the study reported here were semi-structured. A set of questions designed to generate a broad range of responses to address the research sub-questions was formed ahead of the interviews. This approach permitted greater flexibility over structured interviewing. Supplementary and probing questions could be asked. The questions, while following a basic pattern for each group of interviews, could be varied in order depending on where the conversation went. The same follow up questions did not have to be asked of every other group. As well, not all questions needed to be asked during each group interview (Basit, 2010, p. 103). The questions are located in Appendix C.

There are several advantages to the using group interviews: (a) This form of data collection can generate large quantities of data from a relatively large group of people in a fairly short time; (b) the researcher is able to record and analyze the data and observe individual reactions during the interviews; (c) the interviews might generate an interesting “natural language of discourse” full of idiomatic expressions, common language and speech patterns. I note here that this was quite noticeable throughout the interviews. For example, students used the term “like” many times; (d) the process enables the justification of observations and beliefs about social behaviours and structures at close quarters by being directly in the setting; (e) patterns of continuity and change over time can be observed, although this was not a desired outcome in this study; (f) provides a wide range of responses derived from a number of sources permitting a more holistic view of complex social situations; and (g) the interaction among participants might otherwise not be available (Creswell, 2003, p. 186, 2007, p. 133; Krueger, 1998; Morgan, 1997; Schensul et al., 1999, pp. 52 and 111). The interactions, for example among a group of adolescent young males, might generate different behaviours than if they were interviewed individually or in a group with a different mix of males and females (Morgan, 1997, p. 12). While this could raise issues of validity, Morgan concluded that this issue is as much about context as it

is about validity. He also pointed out the differing responses likely from holding individual, dyad or group interviews. Morgan further suggested that, while there is little research in this area (comparing results of such interviews), each might serve a different set of purposes. I note that group size and gender balance seemed to make for a different set of dynamics in some of the group interviews. Students naturally built upon what another student might say, "Just as Johnny said..." In some cases, to promote interaction among the students, I would ask students to add to what another student had said. The interaction was more evident among older students, larger groups and during late morning or early afternoon interviews.

The validity of group interviews depends on the appropriateness of the method for the nature and culture of the study and questions being investigated. It also depends on whether or not the responses are an accurate indication of participants' thoughts and feelings about the matter being researched (Kreuger, 1998). Pilot testing, making the environment warm, friendly and inviting through participant feedback, using trustworthy, culturally appropriate interviewers, using an appropriate setting for the interviews, clarifying questions and responses, and seeking feedback on the results of the research are all mechanisms to enhance validity of group interviews. Reliability is concerned with the possibility of duplicating the results. In the context of the study reported here, this is of less concern and not an expected outcome. The assumptions and limitations of the study have been noted elsewhere (Schensul et al., 1999, p. 105).

Stake (1995) referred to this form of data collection as naturalistic fieldwork. Classic examples of the interview approach associated with ethnographies and case studies include: Becker's (1952) *The Career of the Chicago Public School Teacher*, Lawrence-Lightfoot's (1983) description of *The Good High School: Portraits of character and culture*, Wolcott's (1973) *The Man in the Principal's Office*, and Wolcott's (1987) *The Teacher as an Enemy*. The CEA's report, Secondary Schools in Canada Exemplary Schools Project, which describes the results of a large-scale Canadian study (Gaskell, 1995), and Fielding's (2001) UK study of students as researchers are good examples of qualitative research designs, which report results in a narrative form. The interview is a form of storytelling (Seidman, 2006). In the organizational and business world, Lencioni (2002) has alternatively used the term "Fable" to describe and illustrate vignettes in this way. Narratives enable the uninformed to understand matters from the viewpoint of the participants being interviewed. They enable filters, nuance and the subtleties of a situation to be shared, enriched, and experienced. While I could not, in a sense, live with the participants as part of their sub-culture, I chose to be as close as possible to the students within the confines of my role in the school district.

3.7.1. Pilot Interview Phase

The interview approach of this study was pilot-tested at three secondary schools with 65 high school students being interviewed in groups for the pilot phase. All interviews were video-taped and the researcher conducted all interviews. The purpose for conducting a pilot was to gain experience as an interviewer, gain a better understanding of the conditions for conducting the interviews, and familiarize myself with the technology needed, and to help shape the questions, which were created based on the WDYDIST survey. I also wanted to know whether my presence would be problematic to students responding freely to my questions.

My intention early in the research process was to gain experience in conducting group interviews. Given that this study involved students, I felt it would be important to pilot the process and adjust my approach as necessary. As an adult and senior manager in the system, I wanted to provide a comfortable environment for students such that they would be willing to respond to my questions and interact with each other. I anticipated that a group size of between six and eight would be optimal. The room would need to be large enough to accommodate the interview set up. It would also need to be in a location that would be free of interruption. For the first set of pilot interviews, I hired a separate camera operator to record the proceedings. This enabled me to concentrate on the interview process rather than the mechanics of recording. I was also able to work through my interview questions and make changes as needed. I experimented with the arrangement of students in the interview setting—grouped in rows or around a table. I had little control over students leaving the room and talking with students due to come in for the next session. In fact, some students returned to class and perhaps talked with their classmates about the experience. This likely had some positive effect in that students leaving seemed to have enjoyed the opportunity and probably indicated as such to the incoming students, thereby setting any initial anxieties to rest.

During the pilot phase, I conducted eight separate semi-structured interviews with secondary students in groups of six or more students per group. The students were in Grades 8, 10, 11 and 12 located at three secondary schools within the district. These pilot interviews occurred at schools other than the two schools in my main study. Well ahead of my arrival date at each school, the principals asked for student volunteers from various classes, giving attention to my request for a gender balance, and a range of diversity and academic and social backgrounds. The school administrator also organized the room set-up ahead of my arrival at the school. Interviews were scheduled for 30 to 45 minutes per session with breaks in between. All interviews were digitally video-recorded. Each interview session recording was also transcribed verbatim through a professional transcription service.

Table 11 indicates the schools as well as the number, grade and gender of students participating in the pilot interview process.

Table 11. Summary of Group Semi-Structured Interviews for the Pilot Phase

| Secondary School | M | F | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 | Group Total |
|-------------------------|-----------|-----------|----------------|----------------|-----------------|-----------------|-----------------|--------------------|
| Northlands | 6 | 3 | 9 | 0 | 0 | 0 | 0 | 9 |
| Northlands | 4 | 4 | 0 | 0 | 7 | 1 | 0 | 8 |
| Northlands | 3 | 5 | 0 | 0 | 0 | 4 | 4 | 8 |
| Southlands | 2 | 4 | 6 | 0 | 0 | 0 | 0 | 6 |
| Southlands | 3 | 5 | 0 | 0 | 8 | 0 | 0 | 8 |
| Southlands | 5 | 3 | 0 | 0 | 0 | 0 | 8 | 8 |
| Cedarvale | 6 | 2 | 1 | 0 | 2 | 3 | 2 | 8 |
| Cedarvale | 4 | 6 | 0 | 0 | 1 | 2 | 7 | 10 |
| Total | 33 | 32 | 16 | 0 | 18 | 10 | 21 | 65 |

3.7.2. Main Interview Phase

The group interviews focused on several areas identified through the main research question and sub-questions. My specific research question was to examine from students' perspectives what constitutes engagement in school. This question was explored through a series of sub-questions. My interview questions were developed following from aspects of questions and categories of the WDYDIST survey. Questions presented to students were sometimes rephrased into more student-friendly language, but in most cases, students understood what I was asking.

What are students' views of when they learn best?

- What is your favourite subject area? Why?
- When do you learn best? Why?
- What do you consider to have been your best learning experience? Can you describe where and when it happened? Why do you remember this particular learning experience?
- When do you enjoy school? Why?
- Do you like to learn? When?
- Tell me about teachers who have made a difference and why (no names please).

Under what conditions are students engaged in school?

- What does it mean to be engaged in your learning? (social, academic, intellectual)
- Are you being (instructionally) challenged in your learning? How?
- Do you ever experience a state of flow or being in the zone (explained)

Why do some students feel connected to school and others do not?

- When are you more connected with your learning?
- What holds you back from learning? Why?

What meanings do students have in terms of understanding the purpose, requirements, and importance of school?

- Is school important? Why?
- What does school mean to you?
- Do you use technology? How?
- Do you use social media (Facebook, Twitter, other)?
- What is one word, which describes schooling now?
- What is one word to describe schooling for the future?
- What are some of the things you really like about your school, or things that would make it even better?
- If you could wave a magic wand, what would school be like for you?

What are students' perspectives of success and their future?

- What is success? How do you know when you are being successful?
- Do marks matter? Why?
- What do you value most about high school? What will you miss when you leave high school?
- What do you plan to do when you complete high school? What are your aspirations, dreams... hopes?

What are students' views about the influence of school population size on their engagement?

- Does school size influence the development of student engagement?
- Does school population size matter?
- What are some good and bad things of being in a small/large school?

This section explains the process used during the main interview phase of the research following the pilot interview phase process described previously. As a result of the pilot interview experience, a few changes were made to the interview format. Some questions were added and some were changed slightly so that the questions flowed more easily. Originally, I had considered having both individual and group interviews. It became apparent that while some students were

willing to participate in individual interviews, most students felt uncomfortable being on their own. I was informed of this by one of the principals. Therefore, I decided to conduct only group interview sessions. Following the pilot phase of the interviews, I asked that a gap in time be arranged between interviews to avoid potential influence as students exited the interviews and met with incoming students waiting in the hall. This also enabled me about 15 minutes to reset the room, change recording tapes and adjust the camera.

I mostly interviewed groups of six to eight students. The smallest session had two students and the largest had nine students. I found that both the small groups and the larger groups were less effective. There was less interaction among students in the smaller sessions and they were less able to build on previous examples. In the larger sessions, some quieter students were less likely to respond. Some students were more outspoken. I wanted also to hear from the quiet students and so I would direct questions specifically at them. In some cases, students responded in turn around the table and in others, individuals spoke out without any particular order. The group process enabled students to remain somewhat in their zones of comfort and to more fully participate. The interviews were semi-structured, in that I had a core set of questions, but I varied from the script as the flow of the interview progressed. In some cases, I would ask additional probing questions or seek clarification or ask students to build on previous comments. The interview questions are found in Appendix C.

While having a separate camera operator in the room was useful during this pilot interview phase, I found that this was also a distraction to the students and to me. Therefore, I chose to operate the camera myself during the main interview phase. Rather than a handheld camera that moved around the room, in order to free myself to concentrate on interviewing, I used a high-end high definition camera secured on a tripod. I ensured that I had sufficient lighting and that the sound levels were appropriate. Because the camera was now at a fixed location, this caused a slight modification to the set up. I variously had students gathered in two rows of three to four students per row (preferably with the back row at a raised height). At other times, I gathered the students at one end of a long table. The former worked well for focus of sound and picture, but was more restrictive for student-to-student interaction as all students were facing me rather than in a group setting with each other. The table method also enabled me to keep a note pad and my interview questions available. The disks in my camera were 30 minutes long. On most occasions, I ran over the time limit and so had to stop to change disks. This was a little distracting as it halted the flow of the interviews, but between the students and me, we were able to retrace where we were and continue the discussions. A couple of interviews took an hour to complete. I also chose to conduct my own interviews versus having another person involved in

the process as recorder or camera operator. This was to minimize other adults in the room as I found this distracted the attention of the participants.

On a few occasions during both the pilot phase and the research phase, when a teacher or administrator stopped in or was present, I noticed that the conversation became more stilted. While I asked students to not mention names, on occasion, they did speak about current and past teachers. Having other adults in the room might have compromised those discussions. I also felt that as the interviewer, I was able to adjust questions, change the order, pursue areas of interest, seek clarification and probe for greater understanding when needed. The opening questions always started with an introduction of myself and a reminder of what this was all about (although background material was provided to all students earlier). I asked students to introduce themselves by first name only and also reiterated that all references to full names of staff or students and location given by accident would be filtered out of the study, but asked students to avoid giving these sort of details. I offered to share any general findings about the outcome of the research study through the school principal and to answer any immediate questions. My first question as an icebreaker was to ask students to just give their first name only, state their grade and tell me about their favourite subject and why.

The interviews were free-flowing depending on the direction taken by the student responses with me pursuing lines of questioning following the main set of questions. Key interest areas included students' intellectual engagement, when they learned best, their sense of belonging, educational aspirations, and the nature of the school and classroom-learning climate (including disciplinary climate, expectations for success and teacher-student relations). Students were also asked about whether or not they had experienced a sense of flow using terminology such as being "in the moment" (I explained a little of what I meant by this) and if they felt that they were instructionally challenged in school. I was cautious here to not lead the discussion, but the concept was fairly complex and new to students and so it did need a little explanation. The flexibility of the semi-structured interview process allowed me to ask other questions for clarification and interest. This also allowed students greater freedom to respond in directions of their choosing within broad limits. I also delved into students' interpretations of success, what they would change in schooling if they had a chance to do so, the role of technology, subject areas, and project or problem-based learning.

3.7.3. *Group Interviews*

Over a 10-month period, a total of 21 group interviews were conducted involving 141 students. Nine interviews were conducted with small groups of about six to eight students at

Smallville Secondary School. During this same time frame, 12 semi-structured interviews were conducted with small groups of students at Grand-River Secondary School. A total of 68 students were interviewed at Smallville and 73 students at Grand-River. Group sizes varied from three to eight students. Participants included a range of students in terms of apparent social and academic backgrounds. There was almost an equal balance of boys and girls and participants were of varying ethnicities.

Most participating students had previously completed the WDYDIST survey unless they had been absent from school during the survey period. School Principals handled all communications with parents about the research, the consent process, and the organization and arrangement of the interviews. As the interviews did not all occur on the same day, but were spread over several months, on occasion, a vice principal handled the interviewing arrangements. Parents were informed of the interview research project by letter and advised that student participation was voluntary. Parents had several weeks to respond if they wished to opt out. Copies of consent letters are attached in the appendices. No parents requested that their children be excluded from the project. Students also had an option to opt out. Principals asked students willing to be interviewed based on the consent forms to participate on the day of the interviews. All permission and consent to participate letters were distributed to parents and students through the Principals ahead of the sessions. Students volunteered to participate and all were aware that they could opt out at any time. None did. In each case, the Principal asked for student volunteers and asked them to take home the letters for parent consent. Background information provided to all students and parents along with samples of the informed consent letters are provided in the Appendices I, J and K. It is noteworthy that in some cases, even Grade 12 students, although facing the prospect of final examinations, chose to participate. Students and parents had each signed the agreement forms required for participation in the research project. The Principals handled this process before I arrived at the school to conduct the interviews. The Principals of the participating schools approached teachers at all grade levels to ensure that students could be released to participate in the interviews. The principals (or vice principals) created the schedules and made the room arrangements. The schedule was arranged several weeks ahead of the interviews to enable the school to accommodate the process. Each interview was scheduled for about 30 to 45 minutes with about a 15-minute break between each session.

Upon my arrival at the school on each day of the interview sessions, the Principal showed me to the interview room, and gave me a schedule and student roster. When students arrived in the room, I introduced myself, explained my role in the District and role as a researcher. Students seemed genuinely interested that I would still be going to school! I described some of the background and purpose of the research without signalling my own point

of view. I then explained the process for the interview and also asked students to not divulge names or the school name. On the rare instance where they forgot and referred to self, a teacher or school by name, I edited this out of the transcript. While this process worked well, I learned a few things along the way.

Interviews conducted first thing in the morning were more difficult—both students and the interviewer tended to be less engaged. I also had a few groups with nine students. I found that this number of participants was too many to sustain an interactive and fluid conversation. A group size of six students at a time was most productive. Similarly, Mondays were less productive than other days of the week. By the end of a day of interviewing, I was also tired. Half-day sessions starting in mid-morning and then picking up in the early afternoon seemed to produce the greatest responses. I provided some food and refreshments at the end of each of the interviews. Young teenagers appeared to appreciate this. I discovered that interviews with younger high school students differed from those with older high school students. However, there were some common themes around expectations of career, enjoyment of school, sense of having fun, doing projects, hands-on learning, and in the use of technology. I found that the older students provided more in-depth, sophisticated responses. The Grade 10 to 12 students provided the greatest depth in their answers. Most students seemed to enjoy the experience, and at the end of the interview sessions expressed appreciation for being included and for being asked for their opinions. All students were well behaved and relaxed quite quickly. The camera and my presence did not seem to be as much of a distraction as I had originally thought. The sound and lighting varied, but on all occasions, the filming conditions were adequate for the needs of this study. From a purely impressionistic point of view, students at the smaller school seemed to be more positive about their school and their teachers and were more animated during the interviews.

In arranging the interviews, I could not intrude too far into the normal operations of the school and so relied on the school administration to arrange the session room and to a certain extent, the room set up. There were 2-room arrangements. In some cases, students were grouped sitting on chairs and the edge of a table in two tiers with four or five students in each row. The camera was located just to my side. In this situation, the students were facing me and so the conversation tended to more often flow between the participants and me, although there was some interaction among students. In the other case, students were arranged around a table with me at the opposite end. In this case, there was a little more opportunity for dialogue between students. However, I noticed that unless prompted, most students preferred to respond to me, but might say, “As Stephanie said...” and then would build on Stephanie’s comments. Because the interviews were scheduled over a long period of time, the availability of room space changed, the actual interview room assignments varied between interview sessions. In many cases, I was

located in a room close to the school office or in a seminar room. In these situations, the rooms were fairly small, but manageable for my purposes. In a few cases, I was placed in a classroom. In one case, I was assigned a classroom that was utilized by a teacher on a part time basis. The teacher came into the room a few times during my interviews to pick up materials. This was clearly distracting for the students and for me. In some other instances, the Principal or Vice Principal entered the room to see how things were going. This again was distracting for the students and me. It was very clear that the students valued the confidence and trust that they had placed in me. They felt free to talk about their teachers as part of the interview process, but the occasional temporary intrusion by an adult from the school staff interrupted this.

I managed the room conditions as best as possible. One room had windows to the outside and so as a new group arrived for interviews, the others could see them arrive near the entrance. This was a little distracting. I was conscious of the need to maintain a gap of time between interview times to avoid overlap of participating groups and possible contamination between interview groups. However, sometimes the first interview ran over the allotted time and as a result, the next participant group would begin to arrive. The bell sounded occasionally for class change—rarely, a student had to leave part way through for another class or he/she arrived late. Most students enjoyed the novelty of being interviewed and seemed interested in being able to talk about their schooling. They even joked about getting to miss classes—ironically, apropos to my purpose. One room was quite hot and noisy due to grass cutters working nearby on a warm sunny day. However, on the whole, the rooms and room arrangements worked well and did not cause undue difficulties. Even so, I learned that the room set up and environmental conditions are important considerations when arranging such interviews.

3.7.4. Coding System

Actual student names were not used in reporting specific comments made by students. Pseudonyms and coded identifications were used for all participants and locations in the study. As well, any mention of staff or school by name was masked or deleted. All transcripts eliminated references to names of students. Student names were replaced with a coded reference identification following the ID groupings in the previous tables. See Table 12 and Appendix D for more details.

Table 12. The Coding System Used for Individual Students in the Group Interviews

| Example of Student Coding with Pseudonyms | Group ID number | School | Grade | Gender | Individual in the Group (e.g., #2 of 4 students) |
|---|-----------------|--------|-------|--------|--|
| Cassandra, 4sm11F2 | 4 | sm | 11 | F | 2 |
| Jerry, 6gr10M3 | 6 | gr | 10 | M | 3 |

Note. sm = Smallville, gr = Grand-River.

Table 13 indicates the total number, grade and gender of students participating in the semi-structured interview phase of the study.

Table 13. Summary of Total Number of Students Participating for Both Schools

| Group ID | Schools All | M | F | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 | Overall Total |
|----------|-------------|----|----|---------|---------|----------|----------|----------|---------------|
| All | Total | 72 | 69 | 25 | 23 | 26 | 34 | 33 | 141 |

Note. Total participation in grouped semi-structured interviews for the research study by gender and grade.

Tables 14 and 15 indicate the number, grade and gender of students participating in the semi-structured interviews at Smallville (Table 14) and Grand-River (Table 15) Secondary Schools respectively.

Table 14. Summary of Number of Students Participating in the Interviews (Smallville)

| Group ID | M | F | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 | Group Total |
|--------------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-------------|
| 1sm | 5 | 3 | 0 | 0 | 0 | 7 | 1 | 8 |
| 2sm | 6 | 3 | 0 | 0 | 9 | 0 | 0 | 9 |
| 3sm | 6 | 2 | 0 | 8 | 0 | 0 | 0 | 8 |
| 4sm | 3 | 5 | 0 | 0 | 1 | 6 | 1 | 8 |
| 5sm | 3 | 4 | 0 | 0 | 0 | 7 | 0 | 7 |
| 6sm | 2 | 5 | 0 | 7 | 0 | 0 | 0 | 7 |
| 7sm | 2 | 6 | 0 | 0 | 0 | 0 | 8 | 8 |
| 8sm | 4 | 4 | 0 | 0 | 0 | 0 | 8 | 8 |
| 9sm | 2 | 3 | 0 | 0 | 0 | 0 | 5 | 5 |
| Total | 33 | 35 | 0 | 15 | 10 | 20 | 23 | 68 |

Note. School participation in grouped semi-structured interviews for the research study by gender and grade.

Table 15. Summary of Number of Students Participating in the Interviews (Grand-River)

| Group ID | M | F | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 | Group Total |
|--------------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-------------|
| 1gr | 5 | 3 | 8 | 0 | 0 | 0 | 0 | 8 |
| 2gr | 4 | 4 | 8 | 0 | 0 | 0 | 0 | 8 |
| 3gr | 4 | 5 | 9 | 0 | 0 | 0 | 0 | 9 |
| 4gr | 3 | 2 | 0 | 5 | 0 | 0 | 0 | 5 |
| 5gr | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| 6gr | 5 | 4 | 0 | 0 | 9 | 0 | 0 | 9 |
| 7gr | 1 | 6 | 0 | 0 | 7 | 0 | 0 | 7 |
| 8gr | 2 | 2 | 0 | 0 | 0 | 4 | 0 | 4 |
| 9gr | 4 | 2 | 0 | 0 | 0 | 6 | 0 | 6 |
| 10gr | 2 | 3 | 0 | 0 | 0 | 0 | 5 | 5 |
| 11gr | 2 | 2 | 0 | 0 | 0 | 4 | 0 | 4 |
| 12gr | 4 | 1 | 0 | 0 | 0 | 0 | 5 | 5 |
| Total | 39 | 34 | 25 | 8 | 16 | 14 | 10 | 73 |

Note. School participation in grouped semi-structured interviews for the research study by gender and grade.

3.8. Analysis

Once the interviews were complete, I converted the raw files to a video format that could be used by a transcription service (separate video and audio files). I made digital copies of the full video-recorded interviews by burning them to storage disks and also stored these files along with the transcripts on a secure password protected personal hard drive. I couriered the disks to a recommended local professional transcription service that had signed a contract guaranteeing confidentiality. All of the video/audio files were fully transcribed into Word™ files.

After researching various qualitative data analysis software programs, I experimented with Transana (Woods, 2010). This is a relatively easy application to use and works on most platforms. In very short order, I was able to import the video files and the separate transcriptions. The software matched up the video and audio to the word-processed transcriptions. I then began to load various categories and keywords into the program based on the original questions and on reading through the transcripts. While the use of video was very useful to help organize and catch some of the quieter or less understandable student comments, the software was not used to the fullest extent possible, as during the transcription process, time stamps needed to be placed at

the start of every sequence. To go back into the transcripts after the fact would have been too time intensive. For future reference, the transcription service or individual researcher should plan to type the interview comments directly into the software analysis program and enter time stamps as the transcription is entered.

I followed an analysis method as described by several researchers for studying, reducing and analyzing the text of the transcripts (Miles & Huberman, 1984; Wolcott as cited in Seidman, 2006, p. 117). I read through all of the transcripts many times. When the interview transcripts were reviewed, themes were identified as they related to the original research questions. Using coloured post-it notes and coloured highlighter pens, comments of research interest were segmented according to themes, sorted, and coded. I acknowledge that as one of the cautions with this analysis approach, interactions with the text will reflect the readers' interests, bias and subjectivity. Using another person to code the data and search for themes and then comparing the results to my own could have eliminated some of this potential subjectivity. All comments were then separated into computer folders according to particular themes. For example, quotes referencing a *sense of flow* were separated out with margin notes where themes overlapped.

As a further example, an emergent theme concerned the use of projects. In working through the transcripts (resulting from 1,033 minutes of interviews) involving several read-throughs, I noticed eleven predominant themes: learning experiences, enjoying school, teachers, teaching style/climate, engagement, subjects, projects, desires/aspirations, technology, flow/zone/passion, and success. I assigned each emergent theme a highlight colour code. The theme highlight colour for 'Projects' was brown – I then worked through each set of interviews (21 sets) and highlighted in brown any comments that seemed to pertain to a discussion of project work. I was able to cut and paste all of the comments about project work into one file, yet retained the original source due to the coding system used for each student. The 'projects' file was then further sub-categorized into comments that related to specific aspects of project work. For example, the selection of group members in project work, individual learning within group projects, group interdependency during project work, about having choice when doing projects, the relevance and meaning of projects, how projects are assessed, having the opportunity to be creative through projects, and the ability to engage in active learning through project work. In reporting the results of this study, I could only illustrate sections with sample quotes. In so doing, I selected a range of quotes from within the sub-category that were representative of school, grade and gender. I also selected comprehensive examples of student comments with differing opinions and that were not necessarily repetitious of points made within the same group.

Because each quote could be referenced back to the original documents, the grade, gender and school source (Smallville or Grand-River) could be determined. To assist in following the voices of students through the themes, the coded names were replaced with pseudonyms. A summary of the pseudonyms and reference codes is found in Appendix D.

3.9. Limitations of the Study

This study used Canadian national WDYDIST (2009) survey data as well as data from the research district only. A series of semi-structured group interviews of students attending two high schools in the research district was conducted. The district, which is situated in a suburban location in the lower mainland of the province of British Columbia, had a total student enrolment of about 15,500 students at the time of the study. One study school had a relatively small enrolment with only 603 students while the other school in the study had a somewhat larger enrolment of 1,450 students. Given the specificity of the research setting and the use of a selective sample of two district high schools, one must use caution in extrapolating the results of the study to other contexts and situations. The study used three main data sources: the Canadian national WDYDIST survey results, the survey results from the school district that was the research site, and the group interviews with students attending two high schools in the research district. It was my intent that the use of the three data sources would permit some degree of cross checking or corroboration (triangulation).

The WDYDIST survey was selected because it was available, current and Canadian. It was somewhat limited as the focus of the survey was more broadly attentive to a range of dimensions, including lifestyle and wellness factors. Whereas, the study reported here was focussed solely on student engagement and school and classroom climate factors and only used limited aspects of the larger survey. The WDYDIST survey was recent, but relatively proprietary. Little in the way of other studies have utilized the survey or made reference to it. However, the antecedents of the WDYDIST survey lie in the OECD 2000 PISA assessment (Willms, 2003) and aspects derived from Lezotte's correlates for effective schools (1991). In this way, it was also limited with respect to my ability to attest to validity and reliability. I have therefore relied on the exemplary record of Dr. Douglas Willms, principal author of the survey. His work with respect to international studies, refereed journal articles and his appointments to key leadership roles provide some comfort and confidence in the survey utilized in this study. The survey was described elsewhere in this study, for example in section 2.6.

My role as researcher was defined and shaped by the unique constellation of background and experiences and contributed to how I approached the research question. As a parent, district leader, long-term employee and member of the larger educational community of British Columbia, I tried to declare and acknowledge my potential assumptions, perceptions and biases. In retrospect, a diary of each interview day/session would have been useful to monitor my progress, although I did make a few notes each time in reference to the process. Additionally, I honoured the trust extended to me by the parents and students through their permission and consent to participate. In this case as an insider in the educational enterprise, I also had to consider my position as a supervisor and decision-maker. As a member of senior staff, I was located in a position of influence, authority and responsibility. While not directly involved in the action, I was a 'player', obligated to contribute to an acceptable understanding of the topic. My training, experience, norms of practice and expectations of role shaped my approach. However, from the eyes of the students, the system takes on a very different form and appearance—this was the perspective that I had to understand.

A major barrier to doing qualitative research is the lack of external validity. This issue is concerned with whether representations and findings can be compared across groups. For example, the results of a study investigating a change initiative in one district may not be applicable to the findings of a change initiative in another district. The results can be highly valid in the context of the study, but unreliable when being generalized to other settings. Yin (1994) asserted that qualitative work, such as group interviews, relies on analytical generalization, as opposed to statistical generalization in surveys. In this study, I was trying to generalize a particular set of results to the broader construct of *student engagement*. In order to gain trustworthiness with respect to external validity, the research should be replicated in more settings where the prior research has indicated the same results. Threats to reliability are common with respect to qualitative research. In order to ensure reliability, a subsequent investigator should be able to follow the same procedures that I utilized and arrive at similar results and conclusions. Reliability is concerned about replicability and depends on the handling of both external and internal design issues. Internal reliability is provided when independent researchers arrive at similar conclusions after analyzing the original set of data. External reliability is evident when independent investigators can arrive at the same findings in the same or similar contexts. The goal of replication is to discover whether or not the results can be replicated. However, errors and biases may make it impossible to replicate a study. Documenting and operationalizing the procedures used helps to accomplish this. In addition, dependability can be achieved through purposeful sampling, ensuring that the informants' confidentiality is protected and that the whole process is auditable. I have attempted to attend to the methods of data collection and analysis and issues with regard to reliability and replicability described by various

researchers (LeCompte & Goetz, 1982; Miles & Huberman, 1994, p. 28). I have acknowledged my status as the researcher and insider in terms of potential bias, hierarchical positioning and entry into the school culture. Given the voluntary and independent nature of student participation, I was limited in the process for sampling the population of students for the study. All students participated in the survey. However, I acknowledge the potential for some bias and error in terms of which students might have come forward to participate in the study. I noted the process for the choice and selection of the student participants and recognize the possibility of students bringing their own potential biases and consequences of their relative social positions within their respective interview groups.

The site and conditions under which the study occurred was also important. While this was largely out of my hands as the researcher, all interviews were conducted on the school site, but the actual interview room used and the room set up varied. LeCompte and Goetz (1982) recommended using digital recording devices, spreadsheets and coding mechanisms. I utilized a video camera throughout my study and spreadsheets along with coding mechanisms to organize my data. This enabled me to go back and review segments of interviews with relative ease and with greater detail and nuance over simple audio-recordings. Accurate records of all contacts, surveys and interviews were kept. Record keeping was meticulous and transcripts of interviews were taken verbatim using a professional transcriptionist (Shah & Corley, 2006). Time and resources present one of the greatest challenges to conducting qualitative research. The sensitivity of the researcher to the student sub-culture and to the larger school community was also acknowledged in that the study was somewhat intrusive to the regular school day. At the start of every interview, I explained my formal position and role in the study, the purpose of the study and the voluntary nature of the student participation. I provided a clear identification and description of the students in the “culture-sharing group” being studied. I provided an early description of broad themes to be studied within this school culture through the student surveys. In my results and subsequent analysis, I identified emergent themes. I have also briefly described issues arising as a result of the interactions between the researcher and the participants and the sensitivity and reciprocity created to enable the study through the development of trust. Pseudonyms and coded identifications were used for all participants and locations of the study. As well, any identities of staff or school names mentioned in the study were masked or deleted. I followed all provisions of the university ethics review requirements as well as those of the school district with respect to conducting research involving students.

3.10. Summary

I kind of like the teachers that don't just make you read out of a text book 'cause you've kind of been doing that since like Kindergarten, where they just okay you read, now you read, now you read. Where the teachers get a, yeah a bit more interactive like they get you doing something or maybe like group projects or going up in front of the class and doing something, not just reading and then doing like a worksheet or writing an essay. (Mitch, Grade 10)

The study described here was designed to examine *from students' perspectives what constitutes engagement in school*. This chapter described the methods used to investigate this question. Taking a pragmatic stance, I chose to utilize a mixed methods approach benefiting from attributes of both qualitative and quantitative traditions. By taking this stance, I was free to choose the methods, techniques, and procedures that best suited the purposes and needs of the research. Pragmatists look at the “what” and “how” to inquiry based on the intended outcomes. I have described a mixed methods approach to meet the needs of this particular study. I utilized a locally administered Canadian national survey, which generates results in quantitative form and subsequently conducted semi-structured group interviews of young adolescents at two high schools in an urban setting. The content of the interviews was informed by the survey questions although the interviews were semi-structured in order to allow students freedom to respond in directions of their choosing within broad limits. I have described the nature of the physical setting and the approach used within the setting. I have followed all requirements of the Simon Fraser University Ethics policy (see appendices) and the school district's internal requirements for conducting research with students. This chapter further described several pilot interviews, how the group interviews were handled and how the results were transcribed and coded. I have also indicated some of the limitations of the study.

Chapter 4, which follows, presents the results of the research. In reporting the results, I have organized sections according to the research sub-questions. Within the research sub-question framework, I then chose to organize the flow of the report by presenting the data for each dimension of the survey of high school students followed by emerging themes provided through the interview data. I also included the relevant survey questions along with graphs representing the survey data. My line of questioning varied depending on the direction that the interview took, therefore, I provided a sample of my questions in each category from the series of group interviews as a frame for each section. Relevant excerpts of the students' responses to the interview questions follow in each section.

4. Results

I'd probably want to work in a number of kitchens, 'cause I would like to own my own restaurant when I, not right when I get out of high school. I just want to get like a feel for the kitchen and probably be like a chef owning my own restaurant or working like, I think I want to work in a hotel, just 'cause we went to San Francisco and we went to some really, I can't remember the name of the hotel, but the kitchen was so like state of the art and amazing.

(Noel, Grade 11)

4.1. Introduction

This chapter provides the results of my study, which examined from students' perspectives what constitutes engagement in school. The research utilized data from a national survey and was followed by semi-structured group interviews with students from two high schools in an urban British Columbia school district. The chapter is organized according to the research questions described in Chapter 1. Each section of this chapter includes results from relevant aspects of the student survey and is followed by the results of the group interviews. The Canadian national WDYDIST survey instrument (Willms et al., 2009) was used in the study. The survey data are presented as bar charts comparing the national, Fraserview School District and school results for Smallville and Grand-River Secondary Schools respectively and reported separately by gender and by grade. The data tables for these results can be found in the Appendices E and G.

The odds ratio statistic is a measure of effect size and describes the strength of a relationship between two values. In the national WDYDIST study, the odds ratio is an estimate of the change in the odds of being engaged associated with a 1-point increase in a climate factor on a 10-point scale when student factors such as gender, SES and grade are held constant. Willms (2003) described the odds ratio as follows:

The odds of an event occurring is the likelihood of the event occurring divided by the likelihood of the event not occurring. For example, if an event has a 75 per cent chance of occurring, then the odds of it occurring are $[0.75/(1-0.75)]$, which is 3.0. An event with an odds of 1.0 has an equal chance of occurring or not occurring. An odds ratio is simply the ratio of the odds for two different sets of circumstances. Odds ratios denote the ratio of the odds of an event occurring after a 1-unit change in the independent variable, compared to what it was

previously, given all other independent variables in the model are held constant.
(p. 36)

The national WDYDIST survey utilized the odds ratio statistic as it was used in the PISA study to determine the strength of the relationship between component measures of student engagement: sense of belonging, attendance and intellectual engagement and five measures of classroom/school climate: effective learning time, teacher-student relations, classroom discipline, expectations for success and intellectual challenge (Willms, 2003). In the WDYDIST study, relationships were found to be statistically significant with over half of the variability among schools in measures of student engagement being attributable to the classroom and school climate factors. While family background did not play a major role in student engagement among schools, it did account for student engagement within schools (Willms et al., 2009, p. 25).

The group interviews reported here are organized by topics aligned with the WDYDIST survey and consistent with the survey categories. Each interview topic section is reported using representative direct quotes from student participants. Each quote in these sections is identified using the student's pseudonym and is followed by a coding reference indicating the student's school, grade, and gender. In this way, the reader can identify the voices of particular students. In reporting the results of the student interviews, I provided a sample of the questions that I used during the interviews rather than repeating many variations of the same questions. This is further described in Chapter 3.

It should be emphasized that the results presented here represent the perceptions of the students who participated in the WDYDIST survey and in the group interviews. Perceptions are, of course, subjective and are affected by the students' interpretations of their experience in school and very likely are influenced by peer, family and cultural factors. I have attempted to report the students' perceptions as they were offered in response to survey questions and in the interviews and have attempted to avoid making wider inferences and ascribing causal relationships among topics and categories. Differences noted between data sets from the WDYDIST survey were not statistically evident (Table 16). Statistical *t*-tests were conducted between the two schools in the study in cases where the impression of a significant difference was noted. However, even though, in many situations, there did seem to be an apparent difference, *t*-test calculations did not reveal any level of statistical significance. Statistical tests were not conducted for district to national level comparisons, between grade-level data, for gender differences or for any other schools in Fraserview School District not participating in this study (see Appendix F).

Table 16. Summary Comparison of WDYDIST Survey Results

| | Canada | Fraserview SD | Smallville Secondary | Grand-River Secondary |
|-----------------------------|--------|---------------|----------------------|-----------------------|
| Sense of belonging | 71.0 | 76.0 | 81.0 | 74.0 |
| Participation in sports | 42.0 | 43.0 | 49.0 | 41.0 |
| Participation in clubs | 38.0 | 40.0 | 48.0 | 40.0 |
| High challenge: high skills | 43.0 | 46.0 | 48.0 | 47.0 |
| High challenge: low skills | 24.0 | 26.0 | 22.0 | 29.0 |
| Low challenge: high skills | 27.0 | 24.0 | 26.0 | 20.0 |
| Low challenge: low skills | 6.0 | 4.0 | 4.0 | 4.0 |
| Teacher-student relations | 6.2 | 6.1 | 6.8 | 6.1 |
| Disciplinary climate | 6.0 | 6.2 | 6.7 | 6.1 |
| Teacher expectations | 7.4 | 7.6 | 8.0 | 7.4 |
| Learning time | 6.5 | 6.5 | 7.1 | 6.5 |
| Intellectual engagement | 4.9 | 4.9 | 5.2 | 4.6 |
| Aspirations | | | | |
| High school | 91.0 | 94.0 | 96.0 | 93.0 |
| Trade/apprenticeship | 21.0 | 19.0 | 22.0 | 17.0 |
| University/college | 68.0 | 74.0 | 74.0 | 69.0 |

Note. Data summarized from the WDYDIST survey for Fraserview School District (2009).
CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

4.2. What Are Students' Views of When They Learn Best?

4.2.1. Results from the Student Interviews: When They Learn Best

During the interviews, I asked students to describe their views about their best learning experiences and explain how they felt that they learned best. The following is an example of the questions that I asked to frame this category rather than repeating each question. Following this are relevant student responses excerpted from the interviews. The excerpts are representative of the voices of students from the two schools. Each section describes a key area of response to the questions by individual students—see earlier description of the student coding system and use of pseudonyms in Chapter 3. A dotted line separates student responses from different interview groups.

Interviewer: I want you to think of your best learning experiences. Think about the time when you really felt that you were learning

something -- it was your favourite time of learning. It might not have been this year. It might not have been during the last 5 years. It might have been during elementary school. It might have been outside of school. When did you really connect with your learning? Where was it, what were the circumstances and what did you do? What made it that best learning experience? Was it at home? Was it at school? Was it a different kind of independent learning? When and how do you learn best?

Each of the following sections relate back to this core introductory set of questions.

Students' perceptions of the importance of options and choice as elements of their learning experiences

Jonah: ... where you have like the freedom to do something. Not like "just do this one essay. Just get it done for the next class." You got to like, "you can do, you have this to do but you can, whatever way you want to do it and get it done."...in Socials or Science we had one "cause we had to do one thing. The teacher gave us like different options. We can write it in an essay or do a play or make a dance or something. Our group chose like a kind of play-thing and recorded it. It stays in your head. It's like when you remember, do you like know all the, say like in a textbook there's so many things you got to read. It's like all bouncing in your head. Like all these rebellions and all this, they're all like so much the same, but that one, like if you did like a video or something, it stays. You remember it.
[p.199 - Link] 2sm10M2

Students' views of the contribution of field trips and work experiences to their learning

Interviewer: ... let's explore that hands-on activity piece. We were talking about field trips as another way of getting to know the real world and connecting to your learning. When was the last time you went on a field trip? Was there any particular field trip that you remember?

Eric: My best learning experience was like when back in elementary when we got to go like on outdoor education trip so you get to be like kind of away from your family kind of. But most important you learn how to like to live independently and like just to learn in the outdoors without your parents taking care of you. So and then you get to learn a lot not just about being independent but like you learn how like about nature and how to make a fire and stuff and how to survive in the wild. So it's pretty, like a different type of a learning experience aside from like say in the classroom. 5gr09M1

Adam: ...I liked elementary school 'cause you got to go on field trips like and you could go to museums and Science World and stuff and help you learn in other ways than sitting in the classrooms. You

don't really get to do that in high school. Just to like change your mind set I guess and like see how different things work and see like different museums and about Socials and stuff like that.

5gr09M2

Eric: ... because like Socials is like history kind of so you learn a lot of, like facts provided in the textbook but like if you go to a museum you can actually see something that's live there so it's just easier for you to remember. And like because I can remember lots of things from my previous trips to the museum or like, Science World so that can reinforce my learning skills, like instead of just sitting in the classroom.

5gr09M1

Leo: I would say more field trips or something like that. Like going out and actually seeing things instead of just looking at a textbook, and seeing things there.

6gr10M2

Interviewer: Do you, do you go on any field trips now?

All: No.

Interviewer: When was the last time you used to go on field trips?

Yen: It was probably around Grade 7 in elementary school.

6gr10F4

Interviewer: Isn't that interesting, field trips seem fairly common for elementary, but not for secondary. Why is that?

Jerry: 'Cause they're kids. Well we're kids right now but...

6gr10M3

Derek: ...the Grade 10 Barkerville trip with Humanities. I'd say that was the best learning experience for me just because it was like, it was really fun and engaging and for me myself I'm a very like tactile learner I like to do things hands on right, and kind of experience it first hand, and for me to you know engage with fellow classmates through like a trip and going up to Barkerville and stuff it was really great... it was uh for Humanities. I guess it was just like, in Humanities right you kind of you get close to a certain core group of people because you're with the same people for 3 years right? And it was kind of, the Barkerville trip kind of catalyzed like my main core friendship with a lot of the people who know, I built a lot of really great relationships and it was just a lot of fun. And just the fact that you know we were at school, more or less learning while having fun. It was just a really great experience for me.

11gr11M2

Interviewer: So couldn't you have just learned it from a textbook? You know you could have learned it from Chapter 6 to Chapter 7, about Barkerville. What's the difference?

Ingrid: I went to France with the French 12 group and... I got a sense of what it's like to actually be put into the culture, and um it made me build like a lot more, like also closer friendships with the

people there because you're with the same people for 12 days and you see them every single day, so I, I enjoyed it a lot and I learned a lot too... you could learn from a textbook or you could learn it from like using grammar sheets and things like that, but I think it was a lot better being actually put into the situation and having to like, I guess you could say fend for yourself, because all the people there speak French and so it's not like in a classroom where you can be like oh I don't understand what this word means can you say it to me in English? You'd have to kind of like, I don't know you'd find ways to try to communicate with people if you didn't know how so, I found it really interesting. 11gr12F1

Derek: I guess you could but it would be so different, because like, like I said I'm a very tactile learner right, with Barkerville I was able to like experience what life would have been you know for the gold miners and for the like gold rush and stuff. Whereas with a textbook you just kind of read about it and you try and piece it together in your head but there's only so much that you can do right? 11gr11M2

Brent: ...(during) spring break with a bunch of other schools we went to China. It was really amazing to see like how different life is like over, over there. And it's just like we went to a school—it's really different. It is really different. And we went to a school to perform, we had a bunch of different songs and skits and stuff like that. And the way like that they learn it's like super strict. Like I can't remember how, like what their schedule is but—do you know what their schedule is? 4sm11M1

Cassandra: ... when I went to India last month I learned a lot there because I went to see how people actually lived. People are dying for food and here we're just, pretty much sometimes when we don't want to eat we just throw away our food and people are dying for food there. 4sm11F2

Anthony: ...there was one, one time like that happened this year in Biology class because we were learning about animals but like me, I'm more of a hands-on type person so when we were learning in notes I didn't catch it quite as well. But when we went to the aquarium and we looked at all those different aquatic animals, I learned more that way (in the wet lab) because it's, it was more hands on. I could actually see the animals that we were talking about. I could actually see the parts that we were learning about and stuff like that. And dissections actually helped a lot as well because then you have hands-on experience. You can see eye-to-eye. You know what you're talking about rather than just like looking at notes, looking at drawings. It's better if it's right there in front of you. [p.199 – Link] 5sm11M3

Dana: At the end of February my Socials class went to Victoria because at the time we were studying government and politics... we

actually got to go into the Parliament Buildings and actually see well someone prominent in action and I think that really, that really showed how the system works and I think it really, you know, solidified it for a lot of the other people. 5sm11M1

Students' perceptions of work experiences

Interviewer: How about work experience? Do you go on work experience?

Amrit: I did work experience twice this year so I guess it's more like hands-on because I was like at the job site, like at The Bay and stuff and so they like taught you to do different things and like, in like the backroom like teaching you about security as well. And then I did the Children's Festival and like being on the worksite and them like teaching you like what to do and seeing like all different, like the different jobs and the aspects of it. Ya I thought it was a lot easier working and it was more exciting and interesting because I'm more interested in it. 5sm11F1

Makayla: I went to a fashion show in I think it was the neighbouring district with the textiles class and I think it was a really hands on learning experience because you got to see how people start-off. Like where we are in high school, like just learning how to adapt to patterns and putting things together. And then when you actually go to the fashion show, you get to see what people have come up with themselves and constructed and put them together and their final product. And that's more like what I'm going towards so it was a really good learning experience. 5sm11F3

Levi: I don't think it was at school. It was actually at work. Like when my brothers taught me how to do the payroll, like just the paperwork for the business 'cause I love doing business and I love money. 9gr11M1

Levi: ... like if something interests me I'll love to learn it and I can be good in school. But if it just doesn't like click in, like I just can't focus into it. Like once instead of working as a cook they needed like me to become like the manager position and it just feels like you're moving up in the hierarchy. Like you just take control of the business. You got to run everything. You've got some responsibilities on you. Just like makes you feel a little older. 9gr11M1

Eric: ...where you get to go like with your parents to their work and then you get to learn with them. So I think that's like a more like a place where you can apply your skills and like learn on the job kind of thing. So instead of like just always hitting the classroom and just learning what the teacher has to say and you get to use some of the previous knowledge you've learned and apply it to, to the real, like work. [p.199 – Link] 5gr09M1

Students perceived that they learned effectively when experiences were interactive, there were post secondary connections and topics were challenging

The following section relates back to the introductory set of questions about students' best learning experiences.

Jessica: When I was living in Minnesota I took a class, AP World History, and I'm also continuing that at the university as well right now. But I think it was my favourite learning experience because it was very interactive and I guess it was, it was a better way for me to learn and live throughout history in the different times, we'd enact it and then I could memorize it better. And ya the class was just fun. 4sm11F1

Jessica: ... it's different for me rather than reading it from a textbook because it's just text and then it's just like memorizing and I guess, you know, I have really no motivation to read it and it's just, it's really boring. But when it's interactive you get to actually see it and I can visualize it and then I'm interacting with others, like my friends, so I guess it, ya it makes it easier for me to learn the concept. 4sm11F1

Students' perceptions of their opportunities to apply creative approaches and employ multimedia to their learning

The following section relates back to the introductory set of questions about students' best learning experiences.

Interviewer: ...Sort of goes back to an earlier comment around maybe the teacher provides a little bit of content and then you get to be a bit creative in terms of how you use that content and learn about it, read about it or do an assignment that might be a little bit creative in terms of the assignment. Are you able to be creative in school? Do you get to do that in other courses, in other subject areas, that hands-on learning? Are there examples of that maybe in other courses?

Kirsten: ... well 'cause of music. I catch on to music pretty easily. I can remember lyrics like the back of my hand. But, and then just when those songs will come on the other lyrics will pop in my head and I'll be like "oh right." Or like a research project. It was just a lot more fun doing it ourselves... and also in the video we made a couple of like little jokes, like acting out like—we, we were learning about the Tea Party and stuff like that and so we like sat around a little table and we had a tea party in our video. And it was just fun. 2sm10F2

Kirsten: I like to have fun. Like for instance last year in Socials we had to, based on what we learned in a specific chapter, we had to write a song. And, we could pretty much do whatever we wanted with that. We could sing it ourselves or we could make a video. And my group ended up making a video and it was a lot of fun

doing that and it made the test a lot easier because then I just thought of the song in my head and then it just all flowed. And also again with the teacher's thing, it makes it a lot more fun if you like your teacher. Like if you don't like your teacher and you don't really, just want to sit there and just meet them out it makes it easier if your teacher likes you and you actually like the teacher. 2sm10F2

Marissa: I was thinking visually, like if you were, if you were learning about something and you would watch like a movie on it, or something like that, and you can actually see what was actually going on. I think that helped. 6gr10F3

Tejbir: ...because it was a little bit out of the ordinary 'cause every day in school, right, it's very structured, right, as I said, right, it's very like textbook, right. "Do this, do that" which is alright. That's fine. But it's like when something, something different happens, right, you get to use your creativity. You get to work in like a group and like do all that kind of stuff, right. Like obviously that's going to be the point you're going to remember right because it was a little bit different. [p.199 – Link] 2sm10M6

Nick: I think being creative definitely helps. It's not just like say in Math, it's sort of for this equation you have to do it this way right? But if you are using creative like in drama or woodwork or whatever, so if you get to put, like, yourself into it, kind of, make it your own, that will help you remember certain things. 5gr09M3

Students' opinions of projects and group work

The following section relates back to the introductory set of questions about students' best learning experiences.

Balwant: I did Science last semester. ...and we did this project first, and I still remember what it's about 'cause it's kind of like, you get to act it out and I still remember like every single part of it because it (was) kind of like funny, I laughed and I worked hard on it. I remember, and like other people did other parts of it and I know those parts too. 2sm10M1

Leo: ... in photography this year when our teacher basically just explained what we were doing for our project and then we get three or four classes to do the project just on our own time. I thought that was pretty good. We got to do what we wanted, when we wanted to... he would tell us what, what our goal was and then how we got there was pretty much up to us. [p.199 – Link] 6gr10M2

Students' comments on the use role-playing or games as parts of their learning experiences

The following section relates back to the introductory set of questions about students' best learning experiences.

Interviewer: ... that's a great point—the use of games to help your learning. Do you ever do that in high school? Is it all paper and books or ...is it that idea of learning outside of just the textbook. Role-playing would be an example of this—where you can demonstrate your learning. Has anyone had experiences similar to this?

Shannon: ... (It was) in Socials, where you have the parliament session. So we actually got to act out how a Question Period would look like, which really got me to understand because Socials (I'm) not so interested in it....our teacher made it really interesting and I had good, actually understood it and in turn it helped me on my Provincial. I did pretty good. We were doing it as if you were there. We were acting as a government and we were presenting out own views, which helps me understand better as a person. I understand better if I act out things or if I'm doing it myself better rather just someone teaching it to me. [[p.199 – Link](#)] 7sm12F5

Jesse: Like when we're learning it's like we're playing games and like being competitive makes you want to learn more. Like racing games like to figure out the definition first. People will actually want to do it so they will participate more and all that. 5sm11F4

Students' views of learning by doing, active learning, and hands-on experiences

The following section relates back to the introductory set of questions about students' best learning experiences.

Interviewer: To extend the discussion about hands-on learning experiences, I asked, "So being able to actually make something or do something helps you learn?"

Amrit: ...more like hands-on material and stuff. It's like more like do it yourself or even like different ways that you can learn instead of just taking notes all the time. If you're like allowed to choose... like what you want to do then I think you want to learn it more. 5sm11F1

Simon: I can add to that like for the math, like I took physics as well and stuff in physics, everything relates to every day. You know how it's used so it's much more interesting to learn it and see how it's used... and then you go to math where you have no clue what you're doing this for. It just doesn't seem as interesting.
5sm11M2

Dana: I kind of feel that I learn best when, it's almost like if I can actually feel I can relate what I'm learning to things that are happening like outside of school and like actually use what I'm learning in school. Like to take an example, I don't really, like right now I really don't feel that what we're learning in say Math 11 is really going to help us in, you know, unless we're being like engineers or architects or mathematicians, I don't really feel that, you know, math will really help us so I don't really feel like I'm learning that much in that course.
5sm11M1

Justin: In Science, (we) got to do labs where I remembered. So we did a lab last year in Science and I never forgot it. It was dissecting the sheep's eye. It was kind of gross so I never forgot how to do it. If I ever have to, if I ever take Biology again I'll know how to do it. Kind of... Kind of gross... 'cause I would have to read it and it wouldn't really stick in my head as good as actually physically doing it. You can't like read like how to dribble a soccer ball. But when you actually do it you remember. You can't really read how to learn, how to ride a bike. [[p.199 - Link](#)]
3sm09M5

Alexis: I learn really well at school. I also learn well like when I'm outside and I'm doing something, I'm physically doing it, it'll stick better I think.
7gr10F4

John: (I) dissected a cow's eye.
6sm09M2

Interviewer: ...cow's eye. Why, why do you, now that kind of came to your mind. Why was that?

John: Because it was very smelly and it was really disgusting.
6sm09M2

Interviewer: But what, what do you remember about learning that's most enjoyable?

John: Doing the dissecting thing just 'cause like you don't learn from a textbook or notes... its hands-on so you see what really happens in the eye and stuff.
6sm09M2

Melody: ...that's what I thought of right away was the dissections. We actually get to see what is going on instead of just sheets of paper telling you what's happening... hands-on and the visual aspect of it.
8sm12F1

Jennifer: I guess in Biology a lot of it was like hands-on 'cause we do dissections and stuff and it's easier to understand when you can see it and actually get into it instead of just you know thinking about how that would work on paper.

8sm12F4

Jennifer: Well like if you look at paper then it's just words and everything seems the same and you know. But when you're actually doing it things like, it's like "oh hey that's how that works" and I can actually see how that connects now instead of just trying to figure out what all the words mean.

8sm12F4

Students' perspectives on learning outside of the school structure - at home, with adults other than formal teachers, such as with family members

The following section relates back to the introductory set of questions about students' best learning experiences.

Michael: Probably when my dad was teaching me math. He, I just really liked how he explained it. For me it was really clear. I really understood how he did it. If I, if I didn't get it, he would go like try and find an easier way to explain it to me.

3sm09M1

Sammi: (Math) 'Cause it was easy. My mum showed me a way that she did—she's really good at math so.

3sm09F1

Zach: ... my best learning experience was probably the first time I ever learned to assemble a computer. It was back in Grade 2 I think. My, my dad was buying me a computer and he bought the pieces separately and showed me how to assemble it...and that was around when I really got interested in technology at that point.

9sm12M1

Leah: Well when I do math with my dad, he's like, he's really good at it so he usually helps me and I don't sometimes understand it in class so then I go home and take it to him and he explains it like how I know it. So it's really good. That's usually when I understand.

3gr08F4

Students' views about the role of humour and having fun as part of their learning experiences

The following section relates back to the introductory set of questions about students' best learning experiences.

Andrew: When you're, when you're having fun. I think if you're enjoying, like Comp Civ., if you enjoy what you're doing, you're, I don't know, you're mind's open to learn new things. If you're going to

laugh about a subject then you're like "oh that's funny," but I learned something there, sort of thing. 12gr12M2

Melody: ...or even like something funny happens. Like you accidentally take out the wrong organ. You are going to remember that but you're also going to remember everything else you learned by doing that dissection.

8sm12F1

Students' perceptions of their learning experiences that incorporated visuals or have a story or narrative structure

The following section relates back to the introductory set of questions about students' best learning experiences.

Shayne: ... in Socials, like a lot of the stuff is sort of told like as a story so it's sort of like easier to learn and ya, that's why it makes it sort of fun too. I also, I like to read it from the textbook too. There's graphics and there's extra things on the side that tell you a little bit more. 3sm09M4

Students' comments about intellectual challenges, debates and group discussions in their learning experiences

The following section relates back to the introductory set of questions about students' best learning experiences.

Brandi: ... when we did English Challenge just because it was a more in depth course, we did a lot more in it and it just seemed, it was more fun because we did more like class discussion. We talked as a group rather than just listening to the teacher speak. We came up with our own ideas and we were told they were wrong or right or anything. It was just coming together and coming up with the answers.

8sm12F3

Students' comments on the significance of personal interest and passion for a subject

The following section relates back to the introductory set of questions about students' best learning experiences.

Don: ...if it's a topic you're interested in and you want to learn from it, you will learn. If it's a topic you really have no interest in, you don't, you're not going to ever use.

12gr12M1

Stephanie: ... kind of I guess for me was our Acting class. I don't know our school's pretty, we have pretty big Fine Arts, it's not a big Fine Arts thing but it's, I don't know, we've done it since Grade 8 and like you just, it's just the form of practice, like you just want to continue to want to do better in that class just 'cause you want to make sure you're not looking dumb in front of everybody when you're acting... it's the fact that there's a genuine interest in it. That's when you kind of want to learn more about it and that's when you're willing to have a learning experience. If you're not willing to learn, to have a learning experience in anything—like for Math I don't know if I was really willing to learn so much about it. I just wanted to get it over with so it as kind of hard to even want to have like a big epiphany about it. But when you have an actual, I don't know, want to do better in a class—a passion for something, then ya, you're open to learn more. 9sm12F1

Students' views of having structure in their learning environment

The following section relates back to the introductory set of questions about students' best learning experiences.

Tejbir: I think you learn best in a structured kind of environment because like if it's like not really structure and I'm like on my own or something like that, I'm trying to work through a textbook or something. Like you're always like distracted like by the TV or whatever right so it's good to like just come here, get work done, right. 2sm10M6

Students' perceptions of the value of teaching others as contributing to their learning

The following section relates back to the introductory set of questions about students' best learning experiences.

Interviewer: So they all had to be ready to go, so you kind of helped each other I would imagine to ensure that everyone was up to speed and ready to go? They say that the best way to learn something is to teach it. What is your thinking around that? Do you agree with that statement?

Jean: ...probably in PE [Physical Education] the last 2 years—PE 11 and 12—the students had a chance to teach the class while the teacher kind of sits aside. So you get to learn sports that you maybe hadn't played before or you had played but you get like different rule options just 'cause the kids, the students are talking to students and not like the teacher taking her rules and telling the students. Things could kind of be mixed up and done a bit easier. Like even to the groups level of ability and they can just have fun with it. 8sm12M2

Darius: To like, teach something you have to know the information like really well. So that like helps you a lot 'cause if you're explaining

to someone else like you like learn more on the topic.

8sm12M4

Students' ideas about the use of different teaching strategies designed for different learners

The following section relates back to the introductory set of questions about students' best learning experiences.

Julia: Like everybody learns like different ways. Like I learn like well it depends on the subject, right. Like for English like if you say it to me once I have it down. But like say for Math, I have to like repeat it and then go over and over and over again, right, and like look at it in like different aspects of it until like I'd understand it, right. It's just like teaching in different ways to make sure that everybody understands and that everybody's like engaged, you know, like. [p. 200 - Link] 7gr10F3

Troy: I find that you can, like if you are studying for a test, its better if you like write stuff down it sticks more in your head, or for Science if you are doing a lab that has something to do with the chapter, you just, you learn more and you can remember more and it's easier to go back and that when you have like your exam or something. Whereas if you are just getting told by the teacher what you need to know it's sort of, some of it sticks but some of it just goes in one ear and out the other. 6gr10M5

Pamela: ... it's kind of different like strategies so they kind of adapt to how you learn. So, 'cause I'm one type of learner so I do like, when they're teaching us they do, they constantly do different ways of teaching. Like they'll talk to you or they'll make up songs or they'll—well maybe not songs in high school but they do lots of different things. Or they'll draw pictures or they could do everything so that helps me to learn. [p. 200 - Link] 6gr10F1

Students' opinions about learning through trial and error and self-directed activities

The following section relates back to the introductory set of questions about students' best learning experiences.

Charles: Like when I have tried myself and see how I fail or, you know, how I do it so I know like how not to do it and things. ...so I know what not to do next time. 3sm09M2

Anita: Well I prefer doing work by myself and then until I don't know something then I just like save it for like the end and then I'll go afterschool and talk to the teacher. 3sm09F2

David: I like to apply my work like as soon as I learn it. Like in Science instead of learning something for like the entire week and then

at the end of the week doing the work, I want to be able to do the work right away ... 'cause then I can like forget throughout the week what we learned. But that way I would do it while we're doing the information.

3sm09M3

Mannu: Like I can learn by myself. Like there's at times in class where there's certain areas that we're focusing on and it might be going too slow so I'll start to jump ahead and I'll just ask for help. 2sm10F3

Kirsten: Like I like being kind of independent and learning stuff on my own but, and with the textbook, but ya that could be boring. But also when you're just having a teacher talk in front of a classroom, just shooting stuff at you... 2sm10F2

Yen: I think my best learning experience would be when I was like teaching myself something that I was interested in and then I just liked asking people questions to my teacher or something... like for example in animation... you just like to work on your own project and then if you can't figure something out you just ask... (the teacher) gives us the basic assignment and then we can expand on that. The one I'm working on now is this gingerbread man 3D, a gingerbread man, and he's like dressed kind of like the Matrix which is cool. And he sort of likes goes over to the school and turns it on and starts doing something. 6gr10F4

Jordan: Grade 8 in Math—my teacher didn't lecture us. It was just like maybe like 10 minutes explaining the lesson and then we were to do the lesson, not just the teacher explaining the entire lesson. We got to do it ourselves. 6gr10M4

Jasmine: I'm at school, like I find if the teacher explains something then gives us time to sort of learn it ourselves too, that works good 'cause I do that really well. 7gr10F6

Jasmine: Well I think like we have guidelines then you get to do it yourself. Like whether it be hands-on or just like reading something, you know, sort of self-teaching. I think it's a bit of both. 7gr10F6

4.3. Why Do Some Students Feel Connected to School and Others Do Not?

4.3.1. Results of the Survey: Sense of Belonging

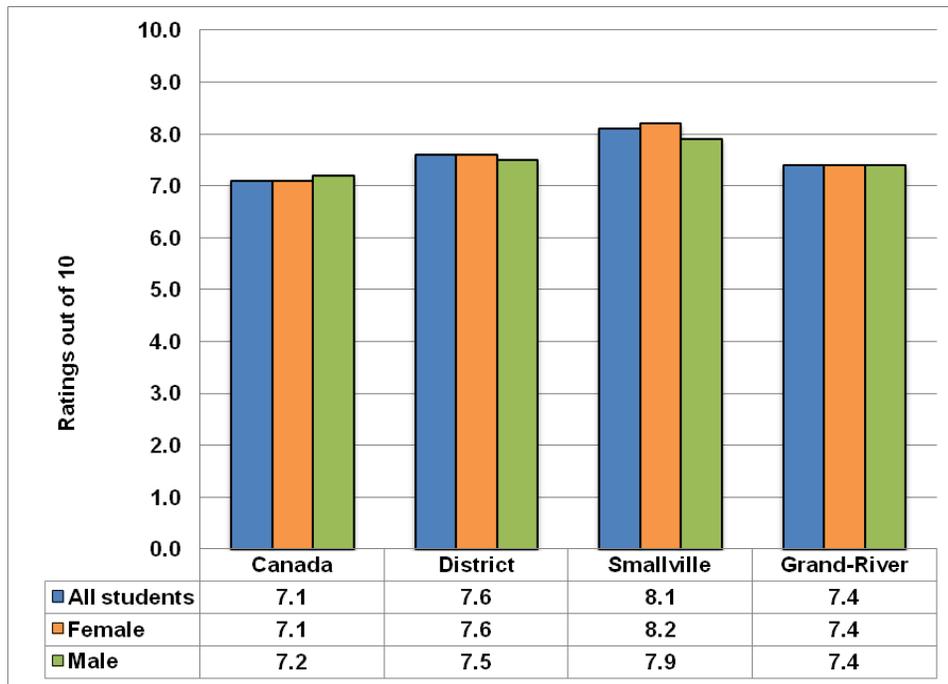
On the national WDYDIST (2009) survey instrument, students were presented with six statements about their sense of belonging in school as a dimension of social engagement (Table 17). The questions asked about students' feelings of acceptance and belonging at school. The results pertaining to students' sense of belonging are based on responses on a 5-point scale (through the selection of an online button) on which they rated statements from strongly disagree to strongly agree. The scores were averaged across the statements. Students were asked the following to click on the option that best described how they feel.

Figure 7 summarizes the data by gender of students' ratings out of 10 in feeling a positive sense of belonging. The chart compares the national WDYDIST (2009) survey results to those for the Fraserview School District and the two schools that were study sites for this thesis research.

Table 17. WDYDIST (2009) Survey Questions: Students' Sense of Belonging

| |
|--|
| I feel included in school activities. |
| I get along well with others at school. |
| I am able to make friends easily. |
| At school I feel accepted for who I am. |
| School is a place where I feel like I belong. |
| Generally, I feel accepted by other kids my age. |

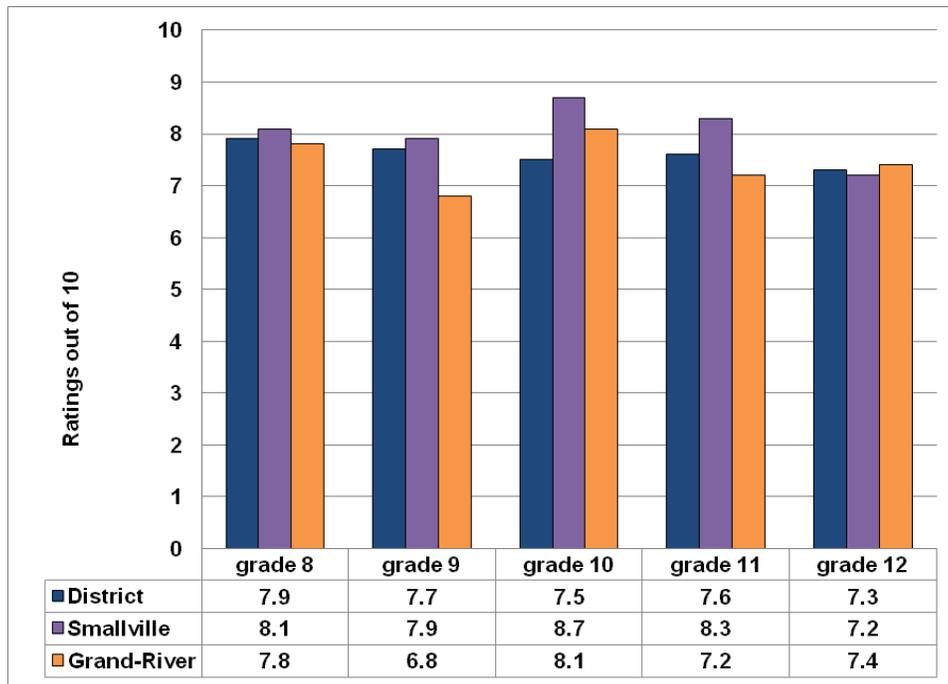
Figure 7. Fraserview School District Students' Ratings Out of 10 in Feeling a Positive Sense of Belonging by Gender



Note. Data summarized from the WDYDIST survey (2009) for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Figure 8 summarizes the data by grade of students' ratings out of 10 in feeling a positive sense of belonging in school. The chart compares the national WDYDIST (2009) survey results to those for the Fraserview School District and the two schools that were study sites for this thesis research.

Figure 8. Fraserview School District Students' Ratings Out of 10 in Feeling a Positive Sense of Belonging by Grade



Note. Data summarized from the WDYDIST (2009) survey for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

According to the national WDYDIST report, 71% of students reported a positive sense of belonging, while at the District level approximately 76% of students indicated a high sense of belonging (Willms et al., 2009). A higher percentage of students at Smallville indicated having a strong sense of belonging in school with 82% of females reporting a feeling of being accepted and valued by their peers and others at the school. While not quite as high, 79% of boys reported a high sense of belonging. At Grand-River 74% of boys and girls indicated having a strong sense of belonging.

4.4. Under What Conditions Are Students Engaged in School?

A further goal of the study was to assess whether or not the students' responses could be interpreted to indicate their engagement with school as a construct of engagement as defined in current research. Stated as a research question, this phase of the study asked: What do the student descriptions of their school experiences indicate about their engagement with school and school-based learning experiences? In Chapter 2, I reviewed the idea, as proposed by several authors (Fredricks et al., 2004, McMahon & Portelli, 2004, Vibert & Shields, 2003, Willms et al., 2009, p. 7) that student' school engagement can be considered to have three dimensions: social, academic and intellectual (see Figure 2 for a visual form of this concept).

4.4.1. *Students' Social Engagement with School*

This section refers to an analysis of the survey items in the WDYDIST (2009) survey as created by Willms et al. (2009) and the relevant student interviews that relate to the construct of students' social engagement in school. There were 8 questions designed to elicit responses in this area of the survey (see Appendix A and B). These questions pertained to two dimensions of social engagement: students' sense of belonging in school and students' participation in school activities.

Results of the Survey: Social Engagement

I refer to "School life" as participation in school activities that are not directly associated with the prescribed curriculum and classroom instruction. These extra-curricular activities form a part of the socialization and enculturation processes of schooling (Holmes, 1998, p. 32). Willms et al. (2009) viewed participation in sports or clubs and committees as an indicator of social engagement. Students were asked how often they played sports with a coach at school during the month prior to the administration of the WDYDIST (2009) survey. Students were also asked how often they participated in an extra-curricular sponsored club, committee or fine arts activity during the month before the administration of the survey. The students responded based on a 4-point scale: "Never or hardly ever", "About once a week", "About 2 or 3 times a week", "Every day or almost every day".

Students were asked the questions about their participation in the life of school (Table 18).

**Table 18. *WDYDIST (2009) Survey Questions:
Students' Participation in School Life***

Please click the option that best describes how you feel.

In the past month, how often have you:

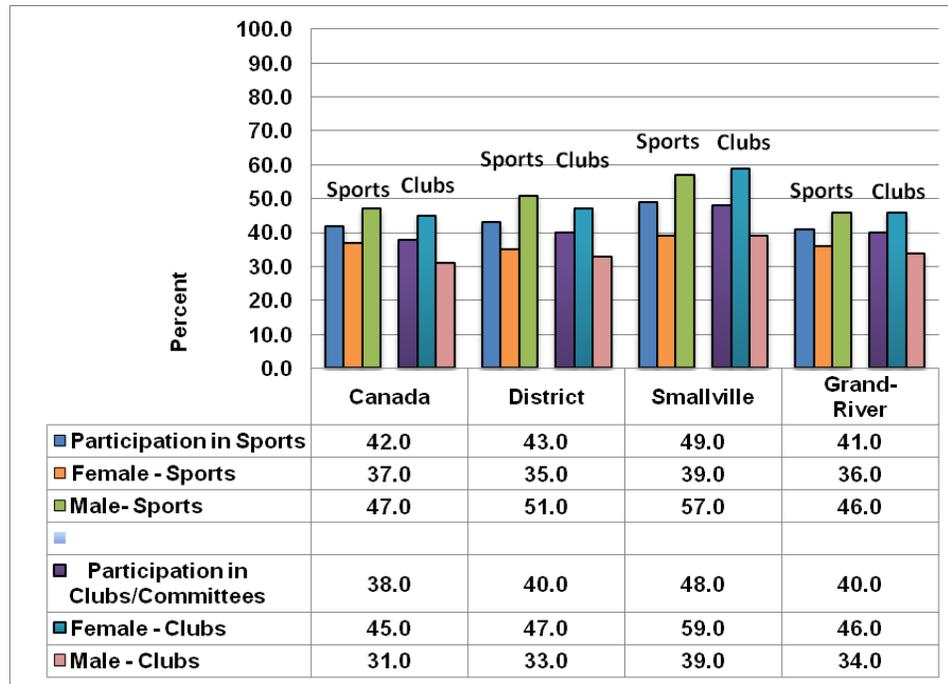
- Played sports with a coach or instructor at school, other than in a gym class (e.g., school teams, swimming lessons)?
 - Taken part in art, drama, or music groups; school clubs, such as a science, math or chess club, or a school committee, such as student council or the yearbook committee?
-

Figure 9 summarizes the data by gender on the percentage of students who participated in school life outside of the classroom: coached extra-curricular sports, sponsored Fine Arts (dance, band, theatre), clubs and committees such as chess, yearbook and the Students' Council. The data compare the national WDYDIST (2009) survey results to those for the Fraserview School District and the two schools that were study sites for this thesis research.

An average (average of the percentage of high participation rate responses for each grade level) of 35% of female students and 51% of male students at Fraserview School District reported high rates of participation (in response to the 4-point scale) in coached extra-curricular sports. This compares with the Canadian WDYDIST (2009) survey norm of 37% of female students and 47% of male students respectively who indicated high rates of participation in extra-curricular sports. The results for female and male students at Grand-River were similar to the national results, with 34% of female students and 46% of male students attending Grand-River reporting high participation in extra-curricular sports and 39% of female students and 57% of male students attending Smallville reporting high participation levels.

An average of 47% of female students and 33% of male students in Fraserview School District reported high rates of participation in sponsored extra-curricular groups, clubs or committees. These results compare with the Canadian WDYDIST (2009) survey norm of 45% of female students and 31% of male students indicating high rates of participation in extra-curricular groups, clubs or committees. Grand-River results were similar with 46% of female students and 34% of male students reporting participation in clubs or committees, while 59% of female students and 39% of male students attending Smallville reported high participation levels.

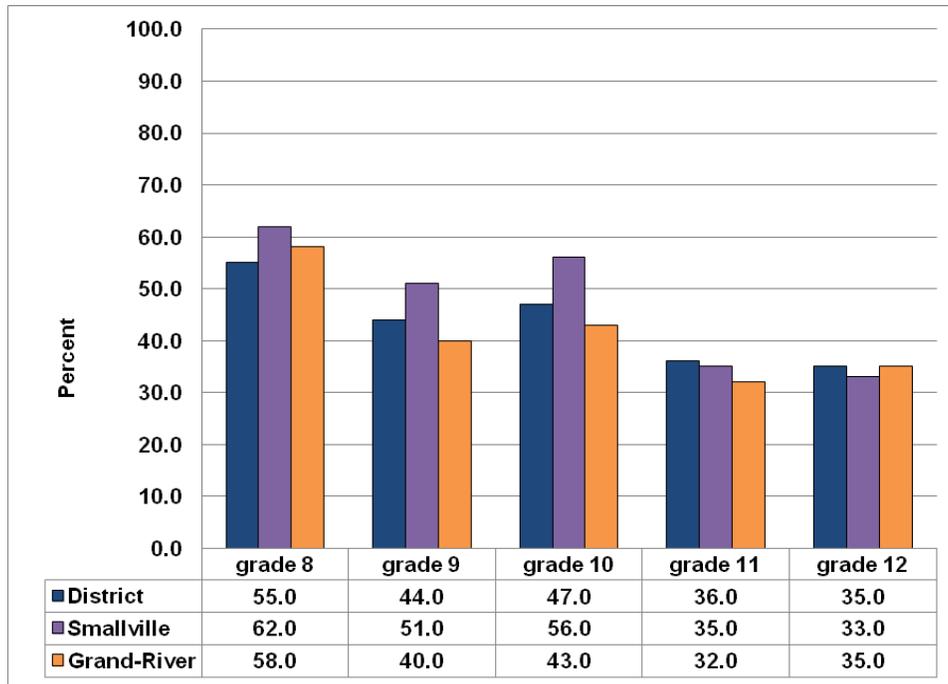
Figure 9. Percentage of Fraserview School District Students Participating in Extra-Curricular Sports or Clubs/Committees at School by Gender



Note. Data summarized from the WDYDIST (2009) survey for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Figures 10 and 11 summarize the data by grade for the percentage of students who participated in the life of school outside of regular class time. The data compare the national WDYDIST survey results to those for the Fraserview School District and the two schools that were study sites for this thesis research.

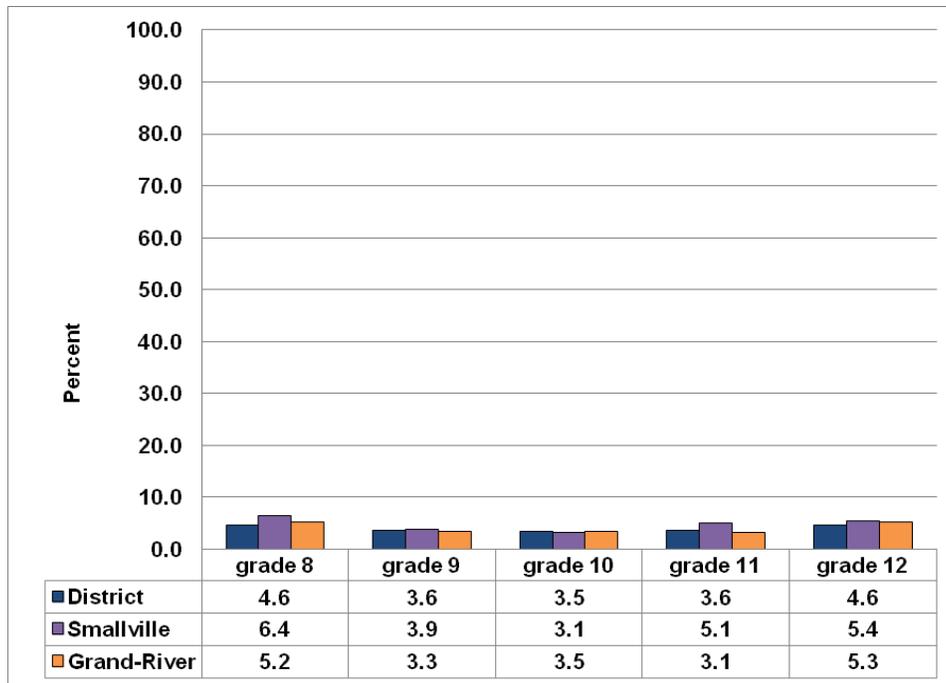
Figure 10. Percentage of Fraserview School District Students Reporting Participating in Extra-Curricular Sports at School by Grade



Note. Data summarized from the WDYDIST (2009) survey results for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

An average of 43% of students at Fraserview School District reported that they participated (in response to the 4-point scale) in coached extra-curricular sports. This compares with the Canadian WDYDIST (2009) survey norm for high school of 42%. An average of 40% of students at Fraserview School District had a high rate of participation in clubs and committees. This compares with the Canadian WDYDIST survey norm for high school of 38%.

Figure 11. Percentage of Fraserview School District Students Reporting Participating in Extra-Curricular Clubs/Committees at School by Grade



Note. Data summarized from the WDYDIST (2009) survey results for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Results from the Student Interviews: Social Engagement

During the interviews, I asked students about times when they felt socially engaged in school. They described various aspects of schooling that involved social connections through sports, clubs and friendships. My line of questioning would vary depending on the direction taken by the interviews. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the conversation. The following is an example of the questions that I asked to frame this category. As explained at the beginning of this chapter, some student responses are excerpted from the interviews that are exemplary of student opinion on this particular topic. The excerpts are representative of the voices of students from the two schools. In this section, I have captured elements of the various student groups interviewed that pertained to social engagement. A dotted line separates student responses from different interview groups.

Interviewer: As part of the study last year there was a survey called “What did you do in school today?” and you might have taken that survey. It defined three areas of engagement: One was called social engagement where students stay in school because their friends are there—they have social connections. Another form of

engagement with school is called academic engagement when you just go to school. You know how to do school. You know the hoops to jump through to get through school. The third kind of engagement is called intellectual engagement. You experience that when you have a real passion for something. Have you ever experienced this in school? Is there something that really connects you with a particular area of learning? What is your passion in school or outside of school? What do you really enjoy doing? When do you know that you are truly engaged in your learning? When do you know that?

Students reported being involved in sports, clubs, and the social aspects of school and community

Carlos: ...we have it [school basketball] like 5 days a week so we can't really... 1sm11M3

Ethan: Well we have a month off—July—and then August we go twice a day to basketball. 1sm11M4

Interviewer: But do you consider basketball holiday time or (school) work time, if you have to think of it that way?

Ethan: Both probably. 1sm11M4

Justin: ... does gym count as a subject? (nods) 3sm09M5

Justin: Right. PE is my favourite subject. I love sports. 3sm09M5

Interviewer: You do? Do you play any sports? What do you play?

Justin: Hockey, spring hockey, lacrosse. 3sm09M5

Interviewer: ...what do you do in the off-seasons?

Justin: Hockey. 3sm09M5

Justin: Hockey, lacrosse—and rugby. 3sm09M5

Justin: School rugby. 3sm09M5

Justin: Hockey and lacrosse. Rugby's just school. 3sm09M5

Interviewer: And why do you like PE?

Balwant: ...school's important 'cause I have to learn. My favourite part of the day is being active. 2sm10M1

Jonah: (Like PE) 'Cause it's different from all the other classes. I like, you get to like learn new sports and some of them you like and some of them you don't get to like. If you didn't go to school, you never would have played them. 2sm10M2

Olivia: Okay, um I want to say something about my experience. I wish I was involved with more clubs. 'Cause I, I don't know, I didn't

really do that kind of thing I was always just here to learn and I did my sports with the school and I helped out where I could but I was never kind of not that into it, so I wish I kind of did just to have that experience of being that leader. [p. 203 - Link] 10gr12F2

Justin: 'Cause you don't have to write anything, it's all like, I don't know. I... (like) sports, play sports and (enjoy) athleticism. 3sm09M5

Jim: Being entertained in school is like the best thing. Like, that's like, that's the only thing that like keeps me here. Like, like I like to learn but I'm not really like a school guy. But like if I'm having fun in school then I can, I can tolerate being here. [p. 203 - Link] 12gr12M4

Jim: ...that's what I always found about school is like after the summer you'd be like "ah school's coming up. I don't want to go back to school." But then again it's like "oh well I get to see all my friends again like because I haven't been hanging out with them all summer." And like you get to go back and you get to see everyone again... 12gr12M4

Andrew: ...you're just, you're upset about 12 (years)—I don't, you see, the thing is the way I see it is you just, it something to do, it's a reason to get up in the morning. Like if you, since you, when did we go to kindergarten—5 years old? 12gr12M2

Andrew: ...there's the social aspect of it too. I mean you're sitting here with 30 people you, they say in Grade 8 you just met them and you're like "I don't know any of you... this is weird." 12gr12M2

Allison: Awkward. 12gr12F1

Andrew: And then like 2 months later you've started talking to each other 'cause you've had to do like 2-person assignments and stuff. There's always a social aspect and ya there's the academic aspect. 12gr12M2

Pamela: School's extremely social that's for sure. Like there's more like there's like the education side of it and then there's just the pure social side. I don't know if anyone else agrees with me but definitely. And as you're getting old like when you look at yourself back in Grade 8 and then it gets to 12 or whatever, just to see how you grow and you start to, different types of people you just kind of, I don't know, it's hard to explain. But I think socially that can affect your education because if you're not, like I'm taking Civics next year which is a lot of debate but what I'm concerned about is that I know it'll be something I'll be good at but at the same time, if I'm not comfortable in the environment that I'm in, it's going to make it a bit harder for me to not have

anxiety about having to talk in front of everybody.
[p. 203 - Link]

6gr10F1

Natalie: ... I help organize a lot of things too—I'm also Global Village President and I work but it's not like normal work. I do my, I do a movie theatre website so I update it with that they're playing, show times, that kind of stuff.

9sm12F2

Interviewer: The Global Village?

Natalie: Multi-cultural club.

9sm12F2

Natalie: I also usually spend my spare, which is right now, in the ESL room [volunteering].

9sm12F2

Stephanie: I've loved it. I actually have loved it. I like high school. I'm good at high school.

9sm12F1

Interviewer: You're good at high school. What does that mean?

Stephanie: Well I recognize it's the only place where you're going to go every single day of your life and be with your friends. Like you're going to move on after life and you're not going to be with your friends every single place that you go.

9sm12F1

Interviewer: And being good at school, what does being good at school mean?

Stephanie: A lot. I mean there's like your relationship with your teachers. You can have a good relationship with your teachers, which obviously your teachers are with you all the time so there's close type of connection. So they can tell whether you're having a bad day so they can tell whether you're like "okay I'll give you better marks. You're having a bad day." They can just tell a lot of the times. And ya.

9sm12F1

Don: Ya, I kinda say every moment's been a blast because I've been through, like we've all been through the wringer many times in many ways, shapes and forms when it comes to work, teachers and even other peers—some of the peers we just don't get along with at all—some I'd like to give a lickin' to. Anyway, going on. But all in all, I have to say it's, it's been fine. I have no regrets here, although I do regret not taking Keyboarding sooner. Anyway. But, ya, it's been a, it's been a nice experience and I'm ready to move on. I'm going to burn this place in my memory.

12gr12M1

4.4.2. Students' Academic Engagement with School

Academic or Institutional Engagement (Willms et al., 2009) refers to participation in the formal requirements of schooling and expectations for academic success such as credits attained, post secondary plans, having a responsibility for learning, homework completion, getting class work done, attendance, tardiness, participation in class and impressions concerning the value of education.

Results from the Student Interviews: Academic Engagement

During the interviews, I asked students about times when they felt engaged in school. Some students appeared to feel academically engaged with school. For some, school was all about gaining marks. Students reporting this sense of their involvement with school indicated that they “do school” or feel that school is a “hoop to jump through.” For these students, school appears to be viewed as a necessary requirement that must be met in order to move on to adult life working or going on to post secondary studies. Sometimes, school was not seen as particularly enjoyable. Motivation in school was driven by something other than deep interest in learning. Some told me that school was a necessary step to go to the next level either work or post secondary schooling. Some viewed learning outside of school as more compelling and realistic than what they learned in school. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview. The following is a sample of the questions that I asked to frame this category. As discussed previously, the opening question then led to a conversation about all forms of engagement. In this section, I have captured elements of those conversations with the various student groups interviewed that pertained to academic engagement. As explained at the beginning of this chapter, some student responses are excerpted from the interviews that are exemplary of student opinion on this particular topic. The excerpts are representative of the voices of students from the two schools. In this section, I have captured elements of the various student groups interviewed that pertained to academic engagement. A dotted line separates student responses from different interview groups.

Interviewer: As part of the study last year there was a survey called “What did you do in school today?” and you might have taken that survey. It defined three areas of engagement: One was called social engagement where students stay in school because their friends are there—they have social connections. Another form of engagement with school is called academic engagement when you just go to school. You know how to do school. You know the hoops to jump through to get through school. The third kind of engagement is called intellectual engagement. You experience that when you have a real passion for something. Have you ever experienced this in school? Is there something that really

connects you with a particular area of learning? What is your passion in school or outside of school? What do you really enjoy doing? When do you know that you are truly engaged in your learning? When do you know that?

Ian: School, right now it just seems kinda like painful. I can't really explain why. It's waking up early. I'm not really learning exactly what I want to be right now. It's the required courses—Math 12, well Math 12 isn't required but it's required for what I want to do at BCIT, English 12. And I have to get a certain required grade to get into BCIT, which is hard for me considering I haven't gotten those high grades before. And I guess what plays a role in that would be my parents. Like I live with my mum. My dad lives in Kelowna. They've been split up for as long as I've been in school but I haven't had a parent that's been on me, "do your homework" or "get higher grades." It's just always been satisfactory so I haven't really had that push from an adult per se besides a teacher. So I think that's a part why my grades aren't as good as they are because I haven't had that push. But then again that's part of my fault because I guess I haven't matured fast enough or properly to get the proper push I need.
[p. 204 - Link] 4sm12M2

Jackie: ... certain, certain courses are, you need to do them. Like not everyone's connected to English but you have to take it. Like everyone has to take it. And I just think that even if you're not connected to it there's some, I think that they, the subject could be made more interesting and more current... in everything, everything really. Like I think math can be made more fun. I think science could be made more fun. [p. 204 - Link] 4sm11F5

Jackie: ... I think you learn better when, when you, when it's something that interests you. And it doesn't have to interest you, like I think everything is, could be made interesting to everyone. And the way things are taught in school are not intriguing to some people and some people are forced into subjects that they might not want to take and they don't do well because it's not interesting and it's, they don't want to learn it. You have to want to learn to learn. You have to have something behind it. Like maybe you're striving for an "A", maybe it really interests you. Maybe you just have to have drive of some sort.
4sm11F5

Kai: Well for me I guess I need good grades to get like, my goal is get a scholarship to university for basketball and for that you need good grades as well so that keeps me going I guess.
[p. 204 - Link] 6sm09M1

Ann: Responsibility. Well I guess you just, with homework and stuff you have to do it and you have to learn, you learn between right and wrong. And like it's not, they don't just teach us subjects. So I'd say it's like life's lessons kind of.

1sm11F2

Cory: ...it teaches you how to like, like especially when you get older it teaches you to be more responsible and my dad has always told me that you don't go to school to learn about stuff but you go to school to learn for university, like learn how to learn.

2gr08M2

Darius: It depends on the person. Like if you take school like as serious as the other person—like for me I usually just do my homework if I got time for it. Like well my semester's pretty easy.

8sm12M4

Darius: It also helps people like try like, if someone's in a course that they're not interested in, like they're not going to go home and do their homework every night and try really hard to like, if, if they're interested and they want to learn what the course has to offer they'll do it. But if not, they'll just, they won't work as hard as if they would, if they're interested. [p. 204 - Link]

8sm12M4

Melanie: Definitely, well ya student engagement like participation is a big thing. You just want to make sure that like if you're having a big class discussion just make sure everybody's kind of involved. I mean even if it means putting some kids on the spot but just, it can, it's just good to make sure that they're listening and they know what you're talking about.

7gr10F2

Laura: I think academic engagement isn't that important because just because you understand it and you can memorize it and you know how to get "A's" doesn't mean that you understand it and you like, I don't know. It's just intellectual engagement seems more important and social engagement too just 'cause their experiencing stuff. And academic is just, you have it, you do it and then it's gone and it goes out.

7gr10F1

Alexis: So for example if you're not interested in it you're not going to have that intellectual engagement but you might have an academic one where you have to understand you have to pass this test. So I think depending on the subject you're going to have different like types of engagement.

7gr10F4

Natalie: Well mostly for me, the whole reason I do it is because of school. I mean it sounds horrible to say but there's a lot of

pressure on Grade 12 because you, you are basically—like, most of the population of the Grade 12 is probably going on to post secondary and post secondary is expensive so you have to get scholarships. And scholarships—there’s a lot of people with good marks so you have to have something else and it’s all those extra-curricular things that you do that sets you apart from everybody else, even though now it seems like it’s getting even harder when people are researching cancer in their spare time. [p.204 - Link] 9sm12F2

Some students learn outside of school and just come to school to “do school”

Eric: I think there’s like lots of ways to learn outside of school. Like you can learn in a really fun type of way, which I would prefer. But like sometimes in my family, most Chinese families, like we go to like schools on Saturday and Sunday and to like learn more things and to improve ourselves. So going to just (learn), there is like Mandarin class like on Saturday or Sunday. There is Math or English or Science and like you could see like kind of other Chinese students going there, and everyone just like learning and like improving our skills and stuff. 5gr09M1

Eric: I just find that sometimes like (I’m) limited to learn in school. Like I find like I learn more outside of school like in, at home where just, you know with friends like naturally in a very realistic type of way. And then you kind of just learn more than being in school. But sometimes like I do well in school it’s just because of how society is, how it is today. So like in order for you to do well you kind of just have to like do really well in school and then you like get a university degree and stuff and then so that’s just kind of my goal. So that’s just like motivates me to do really well in school the most. [p. 204 - Link] 5gr09M1

4.4.3. Students' Intellectual Engagement with School

Intellectual Engagement refers to the deep “emotional and cognitive investment in learning, using higher-order thinking skills (such as analysis and evaluation) to increase understanding, solve complex problems or construct new knowledge (Willms et al., 2009, p. 7). It is knowledge building, problem solving, conceptual thinking, and learning with confidence.

Results of the Survey: Intellectual Engagement

The survey results pertaining to intellectual engagement were based on the responses of students to a series of statements relating to their “enjoyment, interest and motivation to do well in their language arts and mathematics classes, as well as the extent to which they see these classes as relevant to their everyday life” (Willms et al., 2009, p. 11). A 5-point scale was used: 0 (strongly disagree), 1 (disagree), 2 (neither agree nor disagree), 3 (agree), and 4 (strongly agree). This was in a radio button format—numbers were not displayed on the screen. Students

responded to 10 statements responding to the Likert points pertaining to their perceived engagement in Mathematics and Language Arts (see Appendix A and B). The scores were averaged across each of the 10 statements for the subject area to yield an average score. Students with an average score for their responses to the 10 statements that was above 2.4 were considered to have positive intellectual engagement (Table 19).

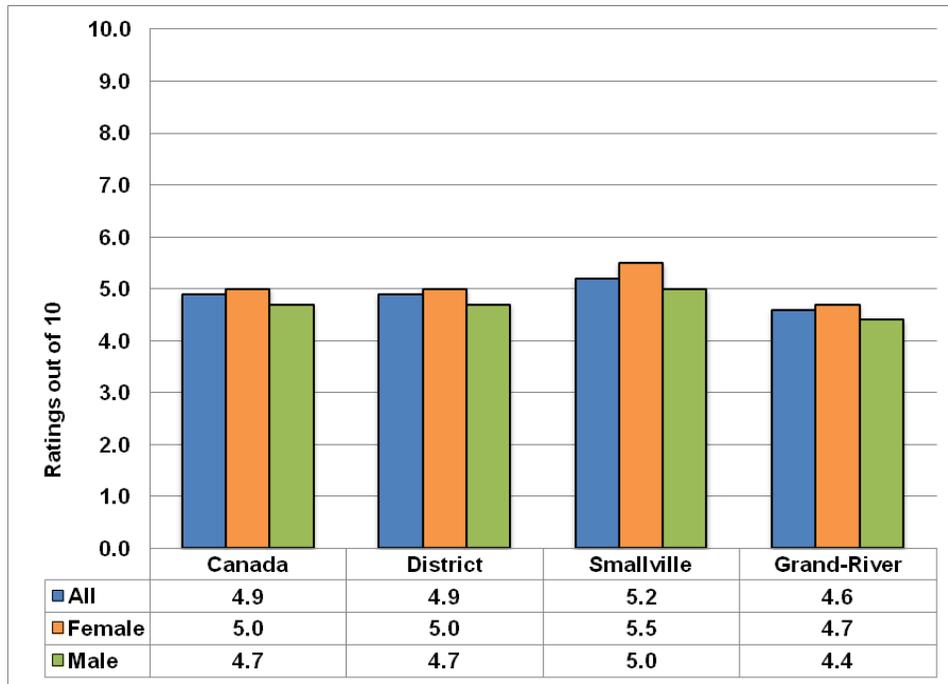
Table 19. WDYDIST (2009) Survey Questions: Intellectual Engagement in Mathematics

| Survey question | Factor |
|--|----------------|
| I spend a lot of time daydreaming, socializing, or pretending to pay attention. | Enjoy learning |
| I enjoy our class projects so much that often I do not want to stop. | Enjoy learning |
| I enjoy math classes so much that I lose track of time. | Enjoy learning |
| I enjoy learning new concepts and ideas. | Interest |
| I wish we did not have to take math. | Interest |
| I find myself thinking about what we are learning even after the lesson is over. | Interest |
| I try hard to improve my skills in mathematics. | Motivation |
| We explore ideas and topics that are meaningful. | Relevancy |
| We cover topics that are useful in everyday life. | Relevancy |
| I know the purpose of what we are learning. | Relevancy |

Note. All items were repeated, but edited for Literacy.

Figure 12 summarizes the data by gender on the proportion of students who were intellectually engaged. The data compare the national WDYDIST (2009) survey results to those for the Fraserview School District and the two schools that were study sites for this thesis research.

Figure 12. Fraserview School District Students' Ratings Out of 10 of Intellectual Engagement by Gender

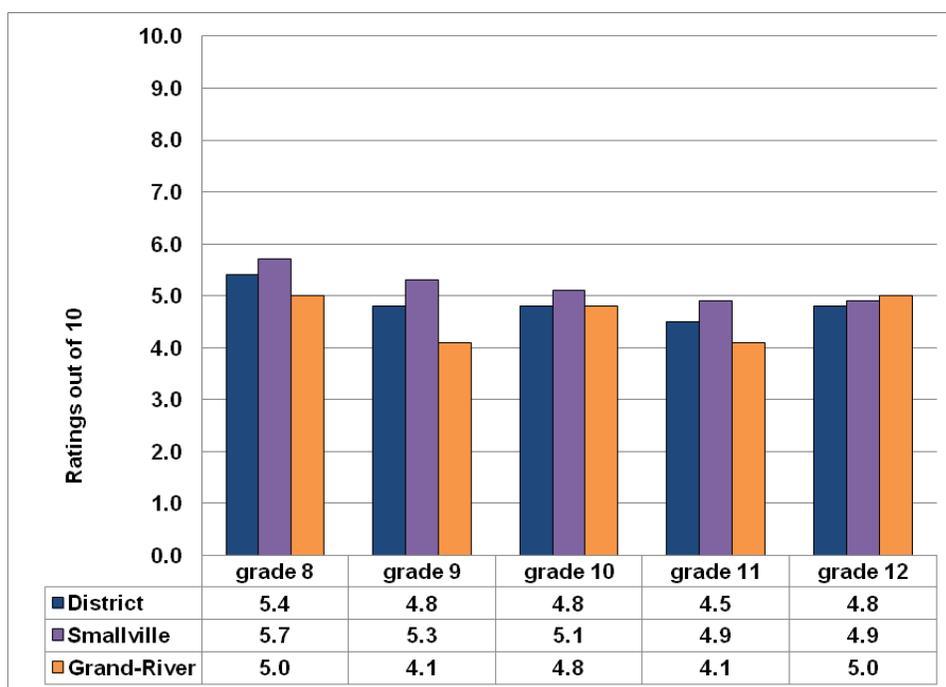


Note. Data summarized from the WDYDIST (2009) survey results for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Figure 13 summarizes the data by grade on the percentage of students who were intellectually engaged. The data compare the national WDYDIST (2009) survey results to those for the Fraserview School District and the two schools that were study sites for this thesis research.

At Smallville, students participating in the survey rated their intellectual engagement overall at an average of 5.2 out of 10. At Grand-River, students participating in the survey rated their intellectual engagement overall at an average of 4.6 out of 10. The national norm for these grades was rated at an average of 4.9 out of 100.

Figure 13. Fraserview School District Students' Ratings Out of 10 of Intellectual Engagement by Grade



Note. Data summarized from the WDYDIST (2009) survey results for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Results from the Student Interviews: Intellectual Engagement

During the group interviews, I asked students about times when they felt engaged in school. Some students expressed a deeper intellectual connection to certain aspects of their schooling. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview. The following is an example of the questions that I asked to frame this category. As discussed previously, the opening question then led to a conversation about the forms of engagement. In this section, I have captured elements of those conversations with the various student groups interviewed that pertained to intellectual engagement. As explained at the beginning of this chapter, some student responses are excerpted from the interviews that are exemplary of student opinion on this particular topic. The excerpts are representative of the voices of students from the two schools. A dotted line separates student responses from different interview groups.

Interviewer: As part of the study last year there was a survey called "What did you do in school today?" and you might have taken that survey. It defined three areas of engagement: One was called

social engagement where students stay in school because their friends are there—they have social connections. Another form of engagement with school is called academic engagement when you just go to school. You know how to do school. You know the hoops to jump through to get through school. The third kind of engagement is called intellectual engagement. You experience that when you have a real passion for something. Have you ever experienced this in school? Is there something that really connects you with a particular area of learning? What is your passion in school or outside of school? What do you really enjoy doing? When do you know that you are truly engaged in your learning? When do you know that?

Students describe themselves as intellectually engaged in school when it is interesting, involving, fun, and an area of passion.

Sukh: I don't learn much in that class at all because I just couldn't care less 'cause it's just not fun. There's no enjoyment going to that class. Every time you go to that class it's just depressing. 2sm10M4

Interviewer: You tune out?

Sukh: A lot of the time ya. 2sm10M4

Interviewer: And then on the flip side, you know, think of another class where you become more engaged.

Sukh: When I'm more engaged it's, means I actually like it. I'd rather be there than the other class. Media Arts to Science or Media Arts to Socials or Foods to Socials. It's funner classes compared to weaker classes. 2sm10M4

Sean: I don't really know how much you can do. I think it's just like an individual's like passion for something. 8gr11M1

Interviewer: And what's your, and what's your passion in school?

Sean: Just I think Shop class. Like, Carpentry (and) Metal Fab. 8gr11M1

Cassandra: Interesting. School should be more interesting. Like when you wake up in the morning you should want to go to school. It shouldn't be like "oh I don't want to go. I want to sleep in." 4sm11F2

Theo: I remember last semester. I was in Social Studies class and that was a good class for me because I actually enjoyed what I was doing. And typically I'm not the "A" student but in that class it was cool because, you know, we'd be having group discussions and he'd go ask some questions and I'd be there with my hand up every time 'cause I actually knew what was going on. It was, it was a good feeling 'cause I wasn't struggling with anything and I was just—I got it. I found that was because I was actually

interested in what I was learning and I enjoyed learning about it so it made it easier. [p. 206 - Link] 3sm09M6

Marissa: Like wanting to be there kind of. Like being interested and not just going 'cause you have to. Like in English if you're reading a book and you just hate it then you're not really going to get anything out of it. And like in English when you have to like, write about each chapter and stuff, it kind of ruins the book. When you gotta read it, you've just got to enjoy it then you'll like it more and want to read it.

6gr10F3

Students perceive themselves as being engaged in school when learning is personalized and there is a choice of learning activities

The following section relates back to the introductory set of questions about students having feelings of being intellectually engaged in their learning.

Interviewer: Is there something that really connects you with a particular area of learning?

Jim: ... I find like Grade 12 you have a lot of electives but I did not like that you only had like two electives in Grade 10 and like one in Grade 9 or two in Grade 9. You don't have enough, you don't have enough choice throughout high school. You just get that choice at the very end. I think by then it's kind of little bit like too late to like be getting all these choices because like there's so many other choices in high school that I wish I could have taken but I couldn't take them until Grade 12 and then there wasn't enough course, like I didn't have enough space to take them all. 12gr12M4

Jim: If there was like, if like, like what I was thinking about, like well not what I was about—like it'd be better if there was more elective choices and more different ways that you could go about going through the courses and getting all the work done just like, but like I don't like sitting in class and taking notes and studying for tests and all that kind of jazz. [p. 206 - Link] 12gr12M4

Allison: ... it's open in Grade 11 for one block and in Grade 12 so there's three separate ones and you can take as many as you want. But ya, like for that kind of thing I guess it's kind of necessary just because of the whole like driving thing. But I'd find that like with a lot, like this year my year was completely like automotive and business oriented, I had a lot of business courses, and last year I had like not one. And it's just 'cause I didn't know and I like wish I had more time like in Grade 8, 9, and 10 to explore more things other than just Math and just Science. 12gr12F1

Jim: I think it was different back then. Like, ... with the explorers is like you would take out a vocation, probably whatever your father did like sailor and then you'd learn about that and you'd focus on that because that's what you planned to do as you grow

up. And like in high school now we don't, we don't like question like what we're going to do as we grow up. It's just like alright you go to school, you learn and then like you do Planning, which is supposed to be for the rest of your life but then in, you don't actually start thinking about what you're going to until Grade 11 and 10, or Grade 11 and 12. And by then like you don't know if you have a course. Like I know that like I wanted to go to UBC and I couldn't go to UBC because I don't have a grade language, I only have a Grade 11 intro language 'cause I thought I wanted to go to SFU but I don't want to go to SFU anymore so.

12gr12M4

Zach: Ya music and technology, ya. It would, another good or good idea would also have like technology courses available at earlier grades. I, I had to wait until Grade 9 to get into Info Tech whereas I would have liked to get into something like that even in elementary.

9sm12M1

Zach: I could have actually taken a lot, a lot more courses related to what I'm interested in if I didn't have so many mandatory ones like Grade 8—I've, I've never been good at French and I still was forced to take in it Grade 8 even when I tried to ask my counsellor to get me out of it. And I just passed the course because I, I pretty much asked the counsellor to give me the pass so I didn't have to retake it. And also PE, I'm actually not very good at PE because of my build and that's not really something I could help because I've always had this build. And try, I, I actually got a conditional pass in PE 2 years in a row just because I couldn't do anything because I had an injured leg, my build, I've never actually been able to keep up with the standards that they set.

9sm12M1

Heather: I would say get more courses available to the students because personally I wanted to take psychology this year but it wasn't offered and some more languages. I mean I love languages. I have a passion for the Arts. Not like actually drawing and stuff but just languages, history and all the art courses like that and I did take a lot of them but things like psychology and like, I don't know, some other courses like Japanese, like Greek, Italian or something—like that would really interest me. And we're just limited to that. [[p. 206 - Link](#)]

11gr11F2

Brandi: ...I think it goes back to like what would you change at the school and I thought about the Planning course and how, I don't know, like when we were doing our grad transitions I'm kinda like "okay what did I do in Planning 10?" And you have to look back 2 years and I guess Planning could encompass more.

8sm12F3

Students in the interview groups claimed that they liked to learn

Eric: I don't know it's just like a passion to learn about anything, it doesn't have to be like Math or Science but like even just for music or language or for sports like, I just like to learn, like even if I don't do really well, but I just like to learn anything. 5gr09M1

Sally: Well I really like learning stuff. Like all the variable things about school. Like weird things about science. Like I just like learning those kinds of things just so I know it. I like learning. Like most people just say that 'cause they should say it but I actually enjoy learning about different things and stuff. [p. 206 - Link] 6sm09F4

4.4.4. School and Classroom Climate

Five school and classroom factors viewed as having direct effects on student success were included in the WDYDIST survey: teacher/student relations; disciplinary climate; teacher expectations for success; effective learning time; and instructional challenge (Willms et al., 2009, p. 10).

Results of the Survey: School and Classroom Climate

The authors (Willms et al., 2009) referenced several studies that indicated greater variation in student outcomes among classrooms within schools than among schools. The authors attributed this variation to differences in the teacher-student relationships rather than to differences in schools. These studies further suggested that the levels of student engagement varied among schools and that some of the climate factors associated with student performance are related to intellectual engagement (p. 10). As described earlier, the odds ratio indicates the strength of a relationship. In the national study, the odds ratio is an estimate of the change in the odds of being engaged associated with a 1-point increase in a school/classroom climate factor on a 10-point scale when student factors such as grade, gender, and family background/SES are held constant.

Table 20 reports the relationships of school and classroom environment to measures of student engagement. Consistent with much research over the past many years, with respect to the data above, in comparing two male students of the same grade level and with comparable family backgrounds (SES), the odds of being intellectually engaged were 1.55 times higher for the student in a class where the teacher's expectations for success was rated at one point above the average on a 10-point scale (Willms et al., p. 24).

Table 20. Relationship of School and Classroom Climate to Measures of Student Engagement

| School and classroom climate (when grade, gender and SES are held constant) | Measures of Engagement | | | |
|--|-----------------------------------|--------------------|------------|-------------------------|
| | Participation in sports and clubs | Sense of Belonging | Attendance | Intellectual Engagement |
| Student/Teacher relations | 1.24 | 1.14 | 1.01 | 1.51 |
| Disciplinary climate | 1.26 | 1.23 | 1.15 | 1.57 |
| Expectations for success | 1.40 | 1.31 | 1.35 | 1.55* |
| Effective learning time | 1.29 | 1.20 | 1.14 | 1.57 |
| Instructional challenge | 1.05 | 1.09 | 1.14 | 1.09 |

Note. Odds ratios in bold shaded boxes are statistically significant ($p < 0.05$).
Reproduced with permission (Willms et al., 2009, p. 25).

Attendance seems to improve when there are higher expectations and an appropriate level of instructional challenge. Students also seem to be more intellectually engaged when there is a positive use of learning time, strong teacher/student relationships, positive disciplinary climate, high expectations for success and an appropriate level of instructional challenge.

In the Canadian national WDYDIST study, the variation among schools in their levels of student engagement reported above was largely attributed to school and classroom climate factors versus family background with about 71% being attributable to school and classroom climate factors (Table 21). About 25% of the variation among schools in the levels of students' sense of belonging and attendance can be attributed to family background, but family background does not explain variation in participation or intellectual engagement. Family background does not add substantially to the variation between schools.

Table 21. Percent Variation among Schools in Their Levels of Student Engagement

| Percent Variance among Schools | Measures of Engagement | | | |
|----------------------------------|-----------------------------------|--------------------|------------|-------------------------|
| | Participation In Sports And Clubs | Sense of Belonging | Attendance | Intellectual Engagement |
| Correlation with School Mean SES | 0.10 | 0.39 | 0.29 | -0.14 |
| School/Classroom Climate Factors | 18% | 57% | 52% | 71% |
| Family Background | 3% | 25% | 25% | - |
| Both | 19% | 65% | 62% | 58% |

Note. Shaded boxes are statistically significant ($p < 0.05$). Reproduced with permission (Willms et al., 2009, p. 25).

It was also evident that students' sense of belonging (0.39) and attendance (0.29) were significantly correlated with mean SES among schools, but participation (0.10) and intellectual

engagement (-0.14) were not. The authors of the national study explained this by suggesting that the relationship of SES to participation and engagement in school is a within school phenomenon. This is consistent with the PISA and Progress in International Reading Literacy Study¹¹ data for Canada and elsewhere (Willms, 2003). High SES does not necessarily convey greater participation or greater engagement in school. Schools with lower levels of SES were also likely to have more students who are not attending school or have a lower sense of belonging in school.

Results of the Survey: Teacher-Student Relations

This portion of the survey was concerned with teacher-student relations. The survey items refer to students' perceptions of how teachers treat them and if they feel that teachers are supportive. Students responded on a 5-point scale ranging from 0 (strongly disagree) to 4 (strongly agree) to six statements about teacher-student relations. The scores were averaged across the six questions in each category and multiplied by 2.5 to create a rating scale ranging from 0 to 10. Students were asked questions pertaining to teacher-student relations (Table 22).

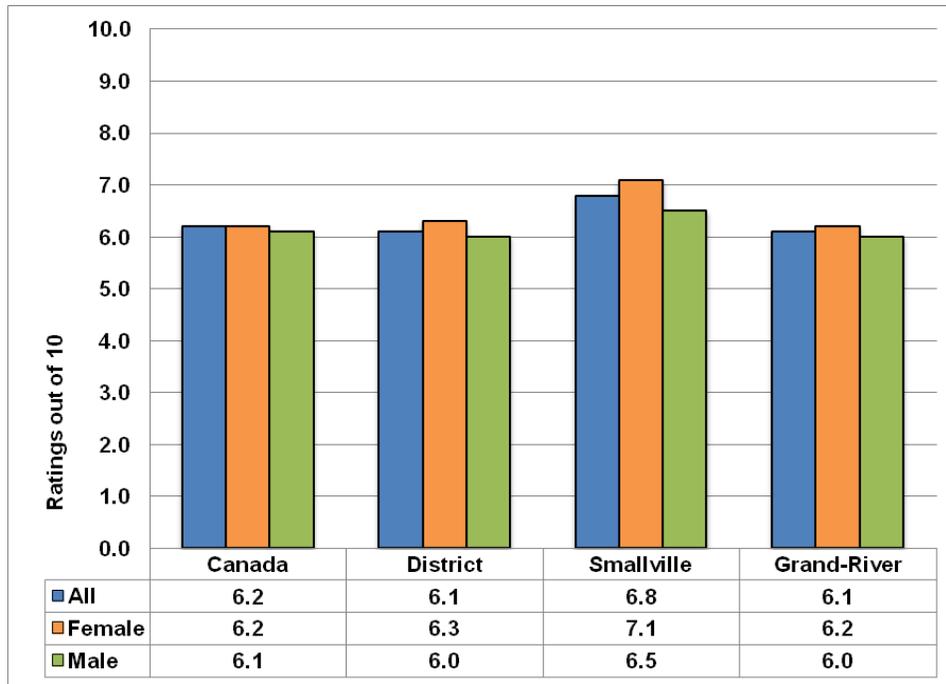
Table 22. *WDYDIST (2009) Survey Questions: Teacher-Student Relations*

| |
|---|
| Teachers treat us fairly. |
| Teachers praise us when we have done well. |
| Teachers get along well with students. |
| Teachers show an interest in every student's learning. |
| Teachers take account of students' needs, abilities, and interests. |
| Teachers do a lot to help students who need extra support. |
| Teachers treat us fairly. |

Figures 14 and 15 summarize the data by gender and grade respectively, on the school and classroom climate where students reported having experienced positive teacher relations, rated on a scale out of 10. The charts compare the national WDYDIST survey results to those for the Fraserview School District and the two schools that were study sites for this thesis research.

¹¹ <http://www.iea.nl/pirls2011.html>

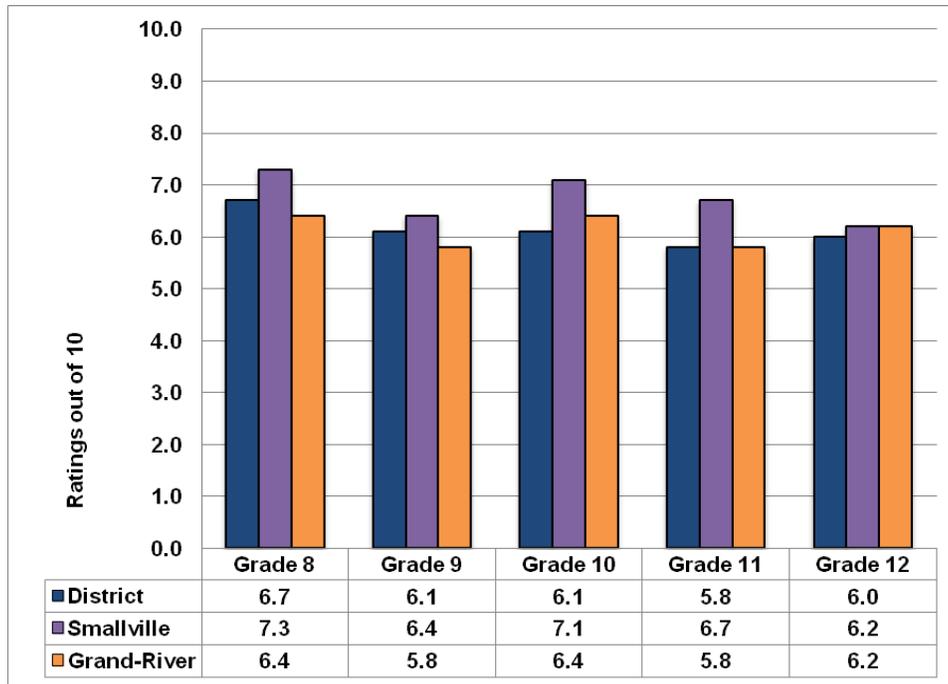
Figure 14. Fraserview School District Students' Ratings on a Scale Out of 10 of Experiencing Positive Teacher-Student Relations by Gender



Note. Data summarized from the WDYDIST (2009) survey for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Students' responses indicated general feelings that there were positive atmospheres in the classes with teachers who were responsive and accommodating of student needs while encouraging independence. The Canadian WDYDIST norm for this category is 6.2 out of 10, while the Fraserview School District results indicated a slightly lower (and not statistically significant) rating at 6.1. Smallville received the highest rating among students experiencing positive teacher-student relations. At Smallville, female students rated experiencing positive teacher-student relations at an average of 7.1 out of 10 and male students indicated an average (calculated by averaging data across grade levels at each school) rating of 6.5 out of 10 compared to 6.2 (females) and 6.0 (males) respectively at Grand-River. As shown below, the students at the smaller secondary school gave higher positive ratings to teacher/student relations. Nationally and locally, students in Grade 8 and Grade 10 indicated the highest levels of positive relations with their teachers.

Figure 15. Frasersview School District Students' Ratings on a Scale Out of 10 of Experiencing Positive Teacher-Student Relations by Grade



Note. Data summarized from the WDYDIST (2009) survey for Frasersview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Results of the Survey: Disciplinary Climate

In the construct of the WDYDIST survey, a positive disciplinary climate in the classroom is characterized by clear rules and expectations for behaviour. In a positive classroom climate, teachers have high expectations that the rules will be followed and these expectations are conveyed to students. Students are aware of, understand and adhere to these expectations. The survey asked students to respond on a 5-point scale, ranging from 0 (strongly disagree) to 4 (strongly agree) to six statements about the disciplinary climate of their classrooms. The scores were averaged across the six questions in each category and multiplied by 2.5 to create a scale ranging from 0 to 10.

Table 23 outline the questions pertaining to disciplinary climate students were asked.

Table 23. WDYDIST (2009) Survey Questions: Disciplinary Climate

Teachers expect students to pay attention.

Classes tend to be quiet.

It is usually easy to concentrate in class.

Teachers maintain control of the class.

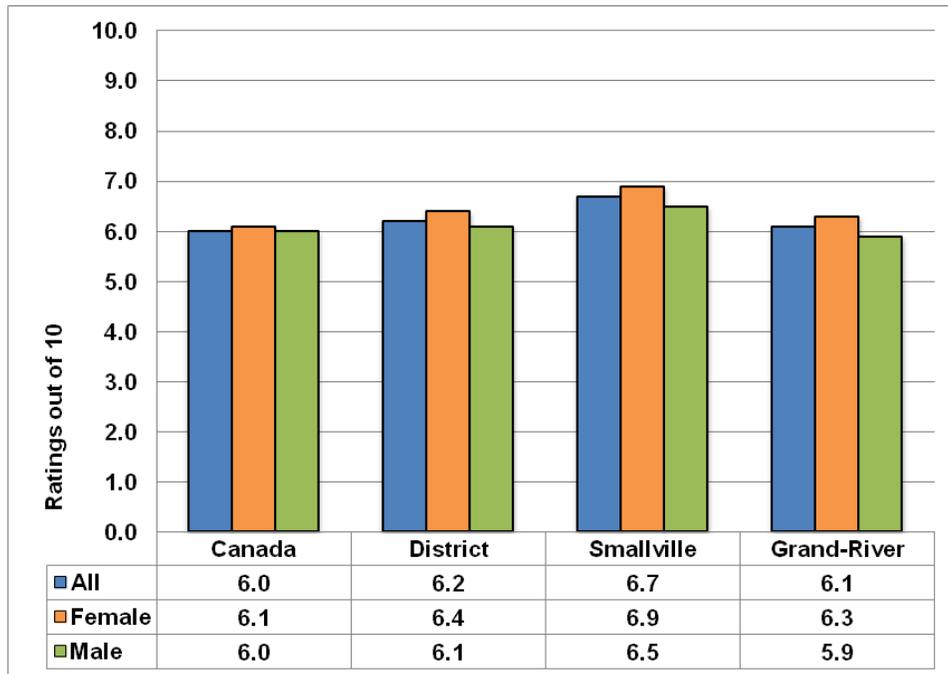
Teachers do not let students get away with much fooling around.

The rules for classroom behaviour are clear.

Teachers expect students to pay attention.

Figure 16 summarizes the data by gender on the school and classroom climate where students reported having experienced a positive classroom disciplinary climate, rated on a scale out of 10. The chart compares the national WDYDIST survey results to those for the Fraserview School District and the two schools that were study sites for this thesis research.

Figure 16. Fraserview School District Students' Ratings on a Scale Out of 10 of Experiencing a Positive Classroom Disciplinary Climate by Gender

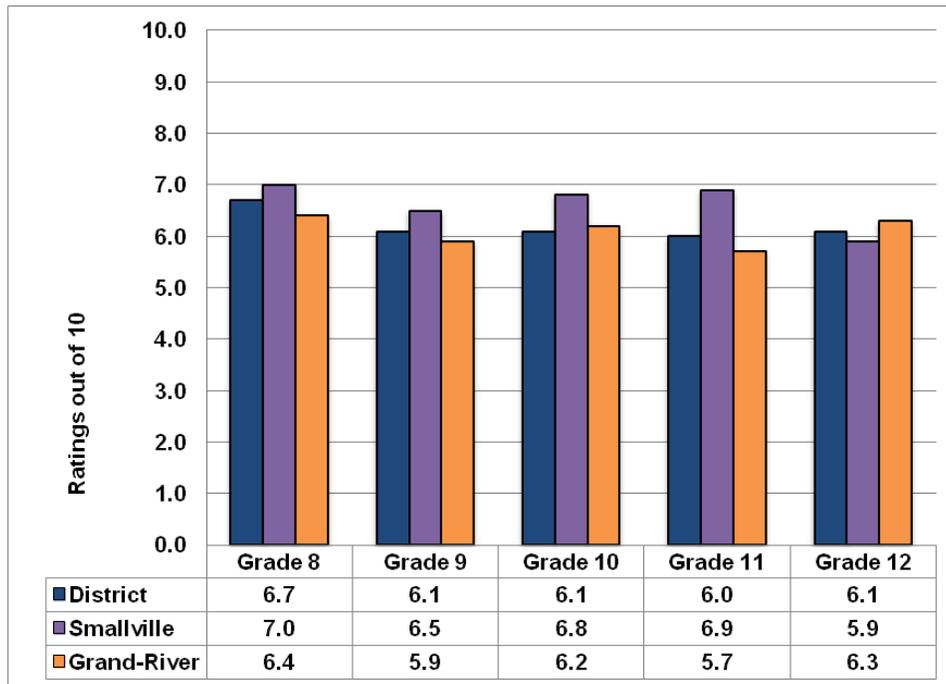


Note. Data summarized from the WDYDIST (2009) survey for Fraserview School District .
 CN: n=32,322; FV: n=5,217; SM: n=461; GR: n=1,176.

Figure 17 summarizes the data on the school and classroom climate by grade where students reported on classroom disciplinary climate, rated on a 10-point scale. The chart

compares the national WDYDIST survey results to those for the Fraserview School District and the two schools that were study sites for this thesis research.

Figure 17. Fraserview School District Students' Ratings on a Scale Out of 10 of Experiencing a Positive Classroom Disciplinary Climate by Grade



Note. Data summarized from the WDYDIST (2009) survey for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

In the Fraserview School District, students rated their perceptions of experiencing a positive disciplinary climate slightly higher at 6.2 out of 10 than the Canadian norm at 6.0 out of 10. Female students attending Fraserview School District indicated a rating of 6.4 out of 10 compared to 6.1 out of 10 for males. The Canadian norm for this result was 6.1 out of 10 for females and 6.0 for males. In general, Grade 8 students felt that their classes had a higher disciplinary climate as compared to the ratings of students at subsequent grade levels. Compared to the larger high school, Grand-River, at all grades, except for Grade 12, students attending Smallville rated their classes as having a high disciplinary climate. The level of significance between scores at the two schools by grade was not tested, although with a difference of 1.2 in scores for Grade 11 students at the two schools, the difference appears to be larger than the difference reported for other grades. The gap between rating scores for female and male students at both schools was greater (0.4 for each) at both schools in Fraserview School District as compared to the district (0.3) and national averages (0.1). The variability between schools and

between grade levels at the same school could be attributable to several local factors, including teacher specific differences and SES. While out of the scope of my research, further study with regard to these factors is needed.

Results of the Survey: Teacher Expectations for Success

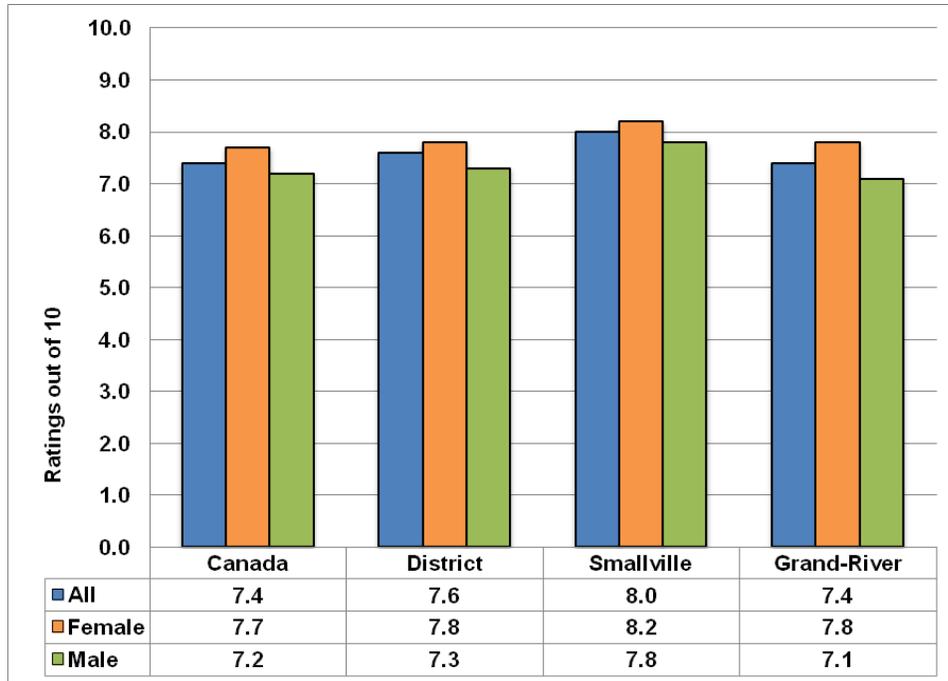
Survey items in this category refer to the degree to which students perceive their teachers as valuing academic achievement and having high expectations for the success of all students. Willms and his co-researchers (2009) refer to this emphasis on achievement as Academic Press (p. 13). Using a 5-point scale ranging from 0 (strongly disagree) to 4 (strongly agree), students were asked to respond to seven statements about teacher expectations for success (Table 24). The scores were averaged across the seven questions in each category and multiplied by 2.5 to create a scale ranging from 0 to 10.

Table 24. *WDYDIST (2009) Survey Questions: Teacher Expectations for Success*

| |
|--|
| Students must work hard to succeed. |
| Teachers encourage students to do better. |
| Teachers expect homework to be done on time. |
| Students are clear about what is expected of them for their courses. |
| Teachers expect us to work hard. |
| Teachers expect all students to do their best work. |
| Students must work hard to succeed. |

Figures 18 and 19 summarize the data by gender and grade respectively where students rated, on a 10-point scale, whether they had experienced a climate in which teachers had high expectations for the success of all students. Figure 18 compares the national WDYDIST survey results by gender to those for the Fraserview School District and the two schools that were study sites for this thesis research.

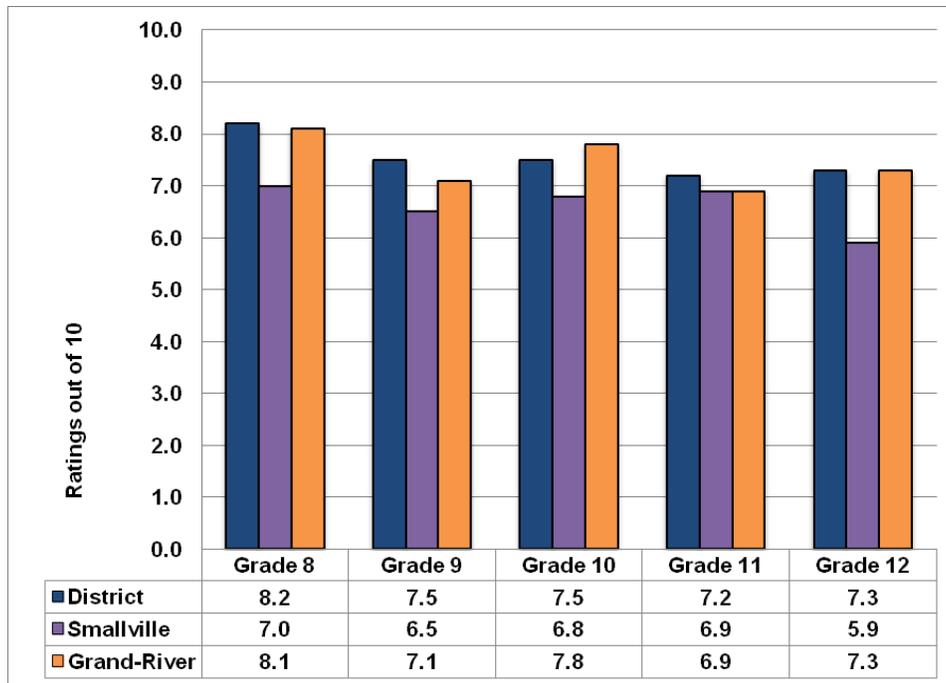
Figure 18. Fraserview School District Students' Ratings on a Scale Out of 10 of Experiencing a Climate of High Expectations for Student Success by Gender



Note. Data summarized from the WDYDIST (2009) survey for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Figure 19 compares the national WDYDIST survey results by grade level to those for the Fraserview School District and the two schools that were study sites for this thesis research.

Figure 19. Frasersview School District Students' Ratings on a Scale Out of 10 of Experiencing a Climate of High Expectations for Student Success by Grade



Note. Data summarized from the WDYDIST (2009) survey for Frasersview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

In the Frasersview School District, students rated their perceptions of teachers having high expectations for student success slightly higher at 7.6 out of 10 than the Canadian norm at 7.4 out of 10. Female students attending Frasersview School District indicated a rating of 7.8 out of 10 compared to 7.3 out of 10 for males. The Canadian norm for this result was 7.7 out of 10 for females and 7.2 for males. In general, Grade 8 students felt that their teachers had high expectations for academic success as compared to the ratings of students at subsequent grade levels. Compared to Smallville, at all grades, except for Grade 11 where it was even, students attending the larger high school, Grand-River, rated their teachers as having high expectations for academic success. The level of significance between scores at the two schools by grade was not tested, although the difference of 1.4 in scores for Grade 12 students between the two schools appears to be large. This variability seems to be very school specific—perhaps as a result of an extra *push* consistent among Grade 12 teachers for students at the larger high school. It is interesting that students at the larger school felt that their teachers had higher expectations as compared to the smaller school. I sense that this is to do with an established climate and atmosphere at the larger school towards academic press. It might also be a result of a perception

that teachers are harder makers at the larger school. I got this sense from the student interviews where there seemed to be a more negative overall student attitude towards their teachers at the larger school. Consistent with the national norms in this category, in all cases, female students felt that their teachers had high expectations of student success versus male students. The gap between rating scores for female and male students at Smallville High School was 0.4, whereas the gap at the larger school, Grand-River, was 0.7 as compared to the district (0.5) and national averages (0.5) respectively. Further exploration of why boys feel that their teachers have lower expectations of success versus girls is warranted.

Results of the Survey: Effective Use of Learning Time

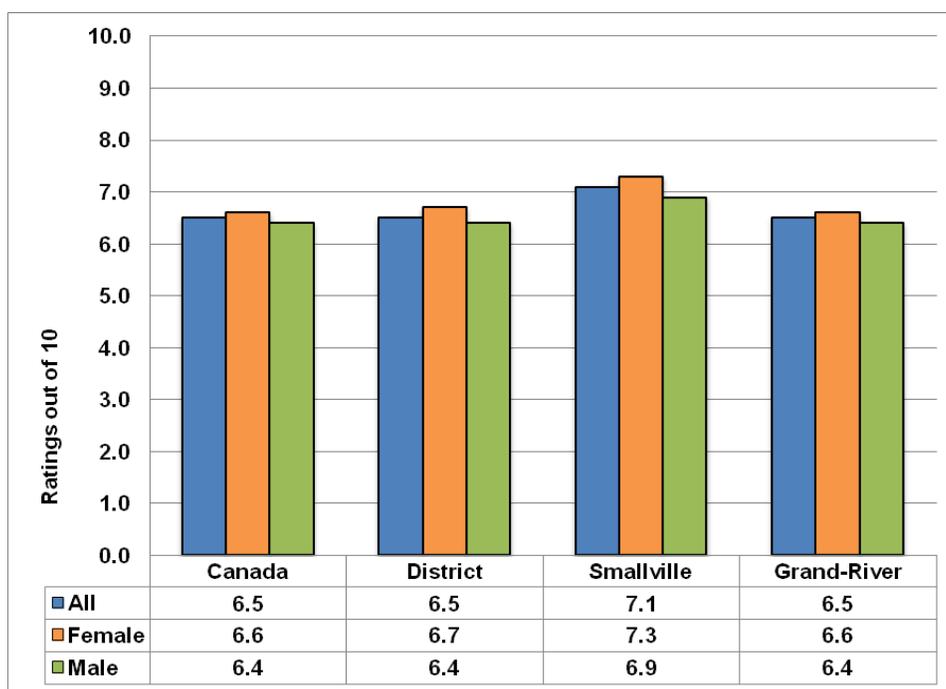
On the WDYDIST survey, effective use of learning time refers to the appropriate and efficient use of instructional time; the alignment of instruction to stated course objectives; and the relation of assignments, tests and other indicators of achievement to the desired learning outcomes. The survey asked students to use a 5-point scale ranging from 0 (strongly disagree) to 4 (strongly agree) to respond to seven statements about effective use of learning time (Table 25). The scores were averaged across the seven questions in each category and multiplied by 2.5 to create a scale ranging from 0 to 10.

Table 25. *WDYDIST (2009) Survey Questions: Effective Use of Learning Time*

| |
|---|
| Teachers are good at explaining difficult concepts. |
| Teachers use our class time to help us learn. |
| Class lessons are well organized. |
| Teachers help us understand important concepts. |
| Important concepts and ideas are taught well. |
| Responses to students' questions are clear. |
| Teachers quickly give students specific feedback on their work. |

Figures 20 and 21 summarize the school and classroom climate data by gender and grade respectively. These data, which are averages of scores on the series of six questions related to this category, compare the national WDYDIST survey results to those for the Frasersview School District and the two schools that were study sites for this thesis research.

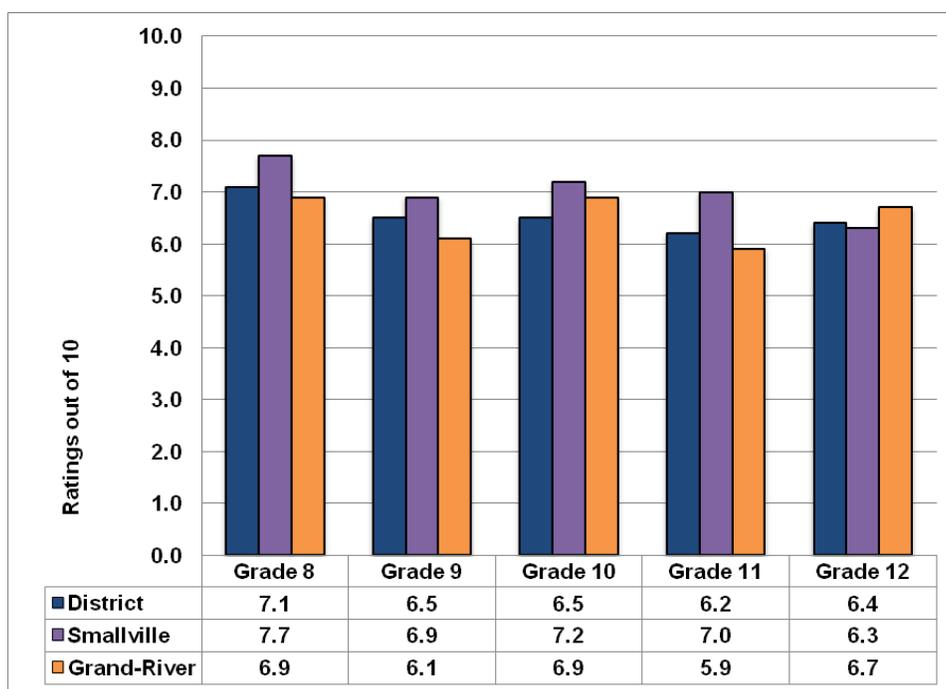
Figure 20. Fraserview School District Students' Ratings on a Scale Out of 10 of Experiencing Effective Use of Learning Time by Gender



Note. Data summarized from the WDYDIST (2009) survey for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

In the Fraserview School District, students rated their views that teachers effectively use learning time at 6.5 out of 10, consistent with the ratings for their Canadian counterparts. Female students attending Fraserview School District indicated a rating of 6.7 out of 10 compared to 6.4 out of 10 for males. The Canadian norm for this result was 6.6 out of 10 for females and 6.4 for males. In general, at the district level, Grade 8 students felt more strongly than students at higher grade levels with regard to teachers effectively utilizing classroom learning time. Compared to Grand-River, at all grades, except for Grade 12, students attending the smaller high school, Smallville, rated their teachers as having high expectations for academic success. The level of significance between rating scores at the two schools by grade was not tested, although the gap of 1.1 in rating scores for Grade 11 students between the two schools showed the greatest difference. This variability seems to be quite school specific. It is interesting that students at the larger school rated their teachers use of classroom learning time more highly than compared to the rating of students at the smaller school. Consistent within this category, in all cases, female students felt more positively that their teachers effectively used classroom learning time versus male students. The question of why boys felt less positive about their teachers' use of classroom learning time warrants further investigation.

Figure 21. Fraserview School District Students' Ratings on a Scale Out of 10 of Experiencing Effective Use of Learning Time by Grade



Note. Data summarized from the WDYDIST (2009) survey for Fraserview School District. CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Results from the Student Interviews: School and Classroom Climate

In the group interview phase of this research, I asked students about their perceptions of teaching and teachers in order to understand their ideas about relationships and the climate that existed in their school and classroom experiences. Research indicates that one of the key drivers for student success is the quality of teaching (Creemers & Scheerens, 1994, p. 134; Hattie, 2002, p. 2, 2009; Lezotte, 1991; Marzano, Pickering, & Pollock, 2001; Mortimer, Sammons, Stoll, Lewis, & Ecob, 1988; Rowe, 2003; Willms et al., 2009, p. 10).

The following is an example of the questions that I asked to frame this category. The opening question then led to a conversation about school and classroom climate. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview. In this section, I have captured elements of those conversations with the various student groups interviewed that pertained to school and classroom climate. As explained at the beginning of this chapter, some student responses are excerpted from the interviews that are exemplary of student

opinion on this particular topic. The excerpts are representative of the voices of students from the two schools. A dotted line separates student responses from different interview groups.

Interviewer: You've given a couple of cases now where you've spoken about teachers ...and so what was it about that teacher that made it interesting?

Do teachers make a difference? Is that important, that relationship, the teacher/student connection?

Can you give me an example of where teachers make a difference? Where do you see this in your classes—which classes?

Do you like those classes better because of the teacher/student connection? How do you build that relationship because it's a 2-way connection? Do you find teachers in terms of that interaction are treating you as young adults on an equal level? Do you see that as being an important aspect of teaching and learning?

Teaching styles? The teacher challenged you a bit? Competition? Enthusiasm? Having a little fun? What is it about the personality of the teacher that makes a difference for you?

Students' Perceptions of Teacher-Student Relationships (Climate)

Students want to have a positive relationship with their teachers. They like teachers to take an interest in them—to notice them. Students enjoy classes when the teacher treats them on an equal level, although some seemed to indicate that teachers can be too easy going and so lack the necessary discipline that generates mutual respect.

Derek: It [having a good relationship with the teacher] makes you want to try harder you know. Like when you have a connection with a teacher that's you know more on a you know individual level versus just you know he or she is my teacher and I go to class and they're here to teach me you know, you kind of get a sense of who they are as a person and you're able to like connect in like a different kind of way than you would just you know in a regular class I guess. [p. 210 - Link] 11gr11M2

Ingrid: Like also [with] some teachers, kids would go to their classrooms during lunch and just sit there and talk with them, like that's how like, like you can do that with some teachers and other teachers like they're... like I have a personal connection with a couple of teachers that I've known since Grade 8. Like I don't know it's just they're way more personable and they're more enjoyable to be around, like you'll go during your extra time to be with them and stand and talk to them about anything. 11gr12F1

Surinder: I don't believe the teachers pay enough attention to the students. Some of the teachers are actually funny and make good jokes and some of them try way too hard. Like in woodworking he just, for me he tries too hard and it really frustrates me and he's paying more attention to himself more than a lot of the other students who are actually causing problems. And that's not the only subject, there's several other subjects. Some of them do and others just don't pay attention to the students who are either struggling or just not paying attention and don't want to learn. 2gr08F4

Sukh: It was just (the) student/teacher relationship. Like he acted like a student. He didn't act like a teacher. He was laid back, talked like a student, he taught like a student. He didn't even worry about anything... and I actually got a good mark in the class because I got that student/teacher relationship. Like in the years before, like Grade 8, I had a horrible teacher. I have no relation though. Like sent to the office many, many times—23 to be exact. And got horrible marks and then the year after I had a really old teacher who was just like, the class just made me want to pass out every day. You walk in, you got the lesson, and then you're like, "alright I'm done. Let's sleep." But then this year it was all like upbeat. 2sm10M4

Yen: ... if I don't necessarily get along with the teacher, or I don't like their teaching techniques, I hate to admit it but I'm not going to put as much effort into that class. 6gr10F4

Elliott: ... if you don't have a good teacher you're probably not going to do good in class... you're not going to feel as inclined to try and learn, but you're just sort of going to try and get by. 6gr10M1

Students' Views of High Expectations (Climate)

Students enjoy classes that are somewhat competitive and where they are encouraged to do their best. They like to be challenged and given greater responsibility for their learning, although students' levels of anxiety seems higher at the start of a challenging assignment. This seems to be the result of the teacher maintaining a delicate balance between having a high challenge to match the level of students' abilities and skills within a diverse class of students.

Ivan: ... it's exceedingly fun to be quite honest 'cause you get to make your whole animations and show them to the class every day. Um and it's pretty competitive as well so you don't have to uh, in a lot of classes it's like oh yeah I got a better mark but like every class ...and it's whoever does the best job theirs gets put up on the wall. 10gr12M2

Julia: Like my geography teacher, we have to come to class every single day with a set of flashcards like cue cards and they have to have questions and be colour coded because she says our brains like questions and colours and stuff. So like that definitely helped me. Like when it come down, when it came down to studying I already had those like hundred cue cards ready from class to just study so I really found that easy. 10gr12F3

Julia: ... it just was like constant like challenge and you, like I never didn't want to go to English, maybe like a couple of times when we had like essays and stuff but like I always wanted to be in that class 'cause I always wanted to be a part of the discussion, yeah. 10gr12F3

Gurdeep: With English yeah 'cause you'd get a subject, we'd (read) the book and then we'd get given a topic and then we'd explain our topic and what we found with it to the class with like a 20-minute presentation. 10gr12M1

Julia: ...and the worst was like you had like five people in your group and you had to get your name picked out, and whoever, that, like, they had, oh no, it was whoever was in the one English class had to do it that day but we had like a day to prepare, but still like my name got picked and I, it was like there's no chance like I had a 1 in 4 chance and it was picked and it kind of was like nerve wracking at first but then once you got going like our class was pretty accepting. 10gr12F3

Olivia: It was scary 'cause everyone's grade is based on that one presentation, so if you have someone who's scared to talk in front of people you're like, oohhhh but ... 10gr12F2

Julia: But it kind of made you... 10gr12F3

Olivia: ...it worked out. 10gr12F2

Julia: ... it was different 'cause you had to make sure everyone was prepared at that point, so then as soon as, whoever's name, they had to be like everyone know what they were talking about. 10gr12F3

Carly: ... because it was hard but the reason it was good was because of the teacher. She just really pushed everyone way, like the level of expectation was way higher than it's ever been so you have to step up and she helps you and, like that was the class I learned the most in... 7sm12F2

Ashley: Tons of presentations. 7sm12F1

Carly: And you're like expected to teach the class for a whole block, which was so new to us when we started that... now we, now we can do it. It's just so easy. 7sm12F2

George: It was an exploration of our own learning ability. Like putting us at a level where we are comfortable with and where we are challenged at and that was what made it such a good course. 7sm12M2

Balwant: I can't, I can't just sit and study. If the teacher gives me a worksheet in a textbook, is it going to be long—I probably want to get that over with. She has to put a little bit of pressure right. Well I do always do my homework and stuff but like if she puts a little bit more pressure then I work harder and then it gets me to finish faster. In fact you understand it... 'cause for Socials we have two different teachers, right, 'cause they switch all the time and one's really lenient, right, and one's kind of strict. But kind of like when the lenient teacher comes in I'm always getting like 60% on the tests and stuff. When the strict one comes in, I'm like 90 something and that kind of stuff. Makes a big difference... and the lenient one's more fun but it's not always the best option, right. [p. 210 - Link] 2sm10M1

Charles: The (best) way. Like for me, I kind of like it when teachers challenge me because, or I don't really like it when they leave me to do the work 'cause I just push it aside and don't do it. But they're not paying attention so I don't wanna really either. 3sm09M2

Students' views about homework, assessment practices, tests and cramming (Climate)

Students do not like homework. They feel that homework is overwhelming and not coordinated among teachers. Students also don't enjoy classes where the teacher teaches out of the textbook. Students tend to cram for tests and don't feel that they learn material this way! In terms of assessment and evaluation practices, students like teachers who offer flexibility such as retests and more time.

Cory: I like school like sometimes but sometimes it will get overwhelming because you have lots of homework and some teachers like expect you to do like 2 to 3 hours a night. 'Cause like a teacher said that to our class, that you should have like 2 to 3 hours of homework a night. 2gr08M2

Cindi: Like my Biology class last semester, that was horrible. Every day she'd just be like "okay make notes on the page whatever in the textbook and then do the questions at the end." 7sm12F3

Natalie: We all cram. 9sm12F2

Will: It's a thousand things to know. Like literally a thousand things to know! 9sm12M2

Sarah: ...we had like 10 tests and supposed to cram all 10 units and do one final exam, which determines pretty much our whole grade.
9sm12F3

Eric: Well, like our Spanish teacher in like Grand-River, she's, I really like her because she has such like an approachable way of teaching and she's like, I just think she's a very good example of what a like a good teacher is and she allows re-tests because she believes that like learning a language or just any subject, you don't just stop there once you've done the test, it just keeps going. And then like you would obviously you are better in June than what you learned in September so she gives you the option to do re-tests.
5gr09M1

Students' perspectives on class discipline, rules and structure (Climate)

Students made the observation that they like classes to be structured, but don't care for strict disciplinarians. Students like class rules that are clear and fair, and they prefer classroom experiences where there is an atmosphere of mutual respect.

Interviewer: ...we were just talking about structure in class and you were talking a little bit about the structure that you like. ...This idea of a teacher who's kind of more relaxed in class—might still have rules—they're hidden. They're kind of they're back there. They don't have to be up front.

Mannu: I like it better when like the teachers make it more enjoyable when they aren't as strict, but they're structured. It's like my Science teacher, he's pretty laid back and he makes jokes with us and he actually tries to get to know us, so.
2sm10F3

Sukh: When it's easy, it's not so hard and the teacher's laid back. When the teacher's strict and we don't have a teacher/student connection, I just tune them out, sit there and get through the class. Keep my head down, try not to distract anybody and just wait until it's over and then leave.
2sm10M4

Max: ... although like he was very strict but he taught me like most the science that I know today. And every day, he like basically knows everything about everything. And ya he just really engaged me. An interesting teacher and he was really, he could teach really well.
9gr11M4

Ryan: ...like last year in English, (it was) really relaxed. Like relaxed, listen to our iPod, text, whatever you want to do, work in groups—anything. He didn't really mind. But we ended up

getting our work done... so that was good. Instead of like a really strict teacher that gives really hard assignments and you have low marks. So it's funner, easier. 2sm10M3

Balwant: Like a combination of the two. So it's not like so laid back that no else is doing anything in the class and no one's (passing) and not too much that people are overwhelmed. 2sm10M1

Sukh: All the hard teachers always harping down on you. I don't know—if school is a lot easier and wasn't so hard and they're always, if teachers weren't always on your back it wouldn't be so bad. But they're always on your back so it kind of... 2sm10M4

David: We're not allowed to have any form of technology with us in class. Like I find it easier to work while I'm listening to music and that makes it difficult for me to work without it. 3sm09M3

Melody: In my Grade 6 French class I was so scared of my teacher I didn't put my hand up once and I didn't learn anything because I was just so scared she was going to make eye contact with me and ask me to say something. I was so nervous the whole class I didn't learn anything. And then when I got to Grade 8 it was a more relaxed atmosphere and I pretty much, like I started to really like French and I ended up taking it until Grade 11 and I never thought I would. 8sm12F1

Brandi: Well our Biology teacher for example, she is, when you first enter the class like in Grade 8 you were like, she had her rules. She was strict. She was kind of scary in the beginning but once you get to know her she is a really, really, really nice teacher who is good and what she does but you respect her enough that you respect her rules and you understand. And like I don't think anybody really disrespects her because, you know, her rules are in place and you know the repercussions but also you like her as a person. She has a really good balance of it. [p. 210 - Link] 8sm12F3

Students' views about teachers' passion, engagement and knowledge of the subject (Climate)

Students commented that enjoy classes where the teacher is passionate about their teaching and make learning fun. Students commented that teachers who know their subjects make a difference.

Kathy: I would have to say this year probably in my English class because before this year I didn't really know what I wanted to do. And like I liked English but it was kind of like whatever, I

didn't really try as hard. But this year, I don't know, probably because of my teacher—she was, she's kind of a little bit, she's kind of crazy but she's really passionate about what she's doing and you can tell that she wants you to learn and do your best. So it kind of helped me like push myself to learning. I think it was our mid-term. We had to write, what was it a story or something, and I just got really into it. Ya I got the best mark in class. 1sm11F3

Lindsay: ... if they like if they're focused on the class and like teaching the material then it shows and then you'll also focus on it as well. 9gr11F1

Eric: ... I think teachers are a big factor to help kids too. I think like there are some here that are just really, really good at teaching and like they can just make the class so much fun but others, you end up learning so much and then you just remember that class, because it was really funny or something, but you remember that fact that we learned that day. 5gr09M1

Ashley: It also makes a difference if the teachers know about your subject like more than what's in the textbook. I mean it's really easy to just look at it and be like "oh this, this, this." But if you know more and it helps with understanding not just... 7sm12F1

Students' views about teachers' approaches, being flexible, and open-minded (Climate)

Students commented that they liked classes where they could be creative, and where they could complete open-ended assignments. They like teachers to be flexible, interactive and knowledgeable about and relate well with their students.

Julia: I think like especially like we're all in like Humanities, right. Like there's like always a lot of room for creativity right. Like he'll give us like different options. Like you could like write like a poem or you could like do a video-project or like poster-board or like, you know, but you have to like hand in a proposal and say like "here's what I want to do. Is this okay? Like this is why I want to do it." And then, you know, he'll like let you, like "ya, you can do it" or like "no that's too simple." 7gr10F3

Alexis: Some more teachers are far more open in their assignments than others are. Like especially like depending on the subject. If you're taking Math, there's not going to be a lot of different ways

that you can show that you understand things. But if you're taking like Socials or English there's going to be lots of different ways. 7gr10F4

Stephanie: ... and she is the, I don't know, she just understands kinda like how you can get someone to want to learn almost. Like if they feel relaxed about it and they don't have all this pressure to be perfect or like make sure they get a certain mark then it's kind of like, that's learning in itself, that you don't have to be perfect about it. 9sm12F1

Sarah: More interaction with students. I mean if the teacher knows or understands what the student is capable of and how they'll learn and applying that knowledge. I mean you can achieve [whatever you want], I mean you can achieve the knowledge for the student. Like for me, hands-on, I'm more of a hands-on student and if I'm able to actually work with what I'm doing it helps me understand what I'm supposed to be getting out of it. 9sm12F3

Will: I never was into Science before that year. My teacher completely got me into it. He's the funniest, nicest, best teacher I've ever had. He just every day he had a smile on his face... he was there every day to make everybody else happy. I was never into Science before that and after that, I just loved it. It wasn't anything in class. It wasn't his teaching method. It was just his genuine love for life that just, it rubbed-off on you. 9sm12M2

Don: I believe not really a student-teacher relationship is needed but more just someone teaching to, teaching to a peer more like. You're not exactly teaching to someone under you. You're just teaching to someone who doesn't know the topic. So that's (the) kind of attitude I believe (in). 12gr12M1

Arman: There was one teacher this year, I'm not going to name names, but it was always annoying because she was a good teacher but every time you asked a question she'd always make you feel stupid kind of. Even though it was pretty legitimate questions. 12gr12M3

Andrew: Yes. I know exactly who you're talking about, but ya. 12gr12M2

Arman: Ya. And she, like she did a good job overall—I did learn but it's, it was like "come on." It just kind of wasn't, it made me feel like she... 12gr12M3

Andrew: She subordinated you pretty much. 12gr12M2

Allison: ...she just, ya totally made you feel like, she'd puts down on you and... 12gr12F1

Arman: 'cause we were good students. I don't know. Didn't make you feel like learning. 12gr12M3

| | | |
|----------|--|----------|
| Allison: | ...she was very sarcastic. It was really annoying. | 12gr12F1 |
| Andrew: | Listen to the question first and don't cut us off. | 12gr12M2 |
| Allison: | ...like try to relate to your students. | 12gr12F1 |
| Arman: | Don't belittle (us). | 12gr12M3 |

Students' perspectives about teachers having a sense of humour, making classes interesting, varied, and entertaining (Climate)

Students commented that they liked classes which were varied and interesting and where teachers demonstrated a sense of humour and made the sessions "entertaining". However, some participants seemed to make a distinction between good teaching and teaching that was entertaining and liked classes where they learned and where the learning process was enjoyable.

| | | |
|-------|---|---------|
| Gabe: | I think it was Grade 8 Socials just because, like our teacher, like we all looked forward to going to his class 'cause he was a good teacher but he kept you entertained at the same time. So I, like I guess you look forward to going to his class 'cause you're going to learn something and you'd be, you'd be having fun at the same time. | 9gr11M3 |
|-------|---|---------|

| | | |
|---------|---|----------|
| Andrew: | ... I was in Acting as well and I'm like ya it's a fun experience. I just enjoy being in front of people, making people laugh. And then ya it helped with other courses. But ya, if you've got a good teacher and you can connect with that teacher and you can talk with that teacher freely then it's really easy, it's much easier to ask questions and to understand the topic. | 12gr12M2 |
|---------|---|----------|

| | | |
|------|--|----------|
| Jim: | I just like classes where I'm enjoying myself, like a subject that I'm interested in makes the class a whole lot easier to actually do the work and enjoy it and do well in the class. I have Comp Civ this year and I got like over 90% in every term because I just, I enjoyed it and I didn't mind doing the work and I found everything interesting so it was just easier to learn it. Like when you're interested in it it's easier... I just like. I like the topic. I'm fascinated with the like the ancient history and also the teacher is really good so she made it more enjoyable... she was just really friendly and really helpful with everything and when you ask her a question, she'd answer it. It wouldn't be a problem. | 12gr12M4 |
|------|--|----------|

| | | |
|-------|---|---------|
| Theo: | ...he was a good guy and he, he taught it in a way that it was almost humorous so. He would explain it in a way and get a couple of chuckles out of it and you remember that kind of thing. | 3sm09M6 |
|-------|---|---------|

Aaron: The whole thing is like it's interesting, the more interested you are, the more likely you are going to learn, the more likely you're going to want to stay there, the more likely you're going to meet people. Like when I came to high school, high school's you know scary or either really happy. I'm not strong in a lot of things but I went to Math and I had a great teacher and a teacher that liked me and I knew her and I was willing to learn and she taught me very well and it was the highest mark I've ever gotten. 11gr11M1

Ryan: In Grade 9 English we end up watching YouTube videos. We were learning about nouns and all that. So I'm just sitting there and getting the meaning. We actually ended up like watching it. It was "funner." 2sm10M3

Gurdeep: When the teacher's more into it. If I have a teacher that doesn't know what they're talking about or if they don't care enough, it's like "oh well they don't care. Why should I care."...and if they're nicer to you you're like "oh I'd rather do better for him." So I guess it's more of the quality of the teacher helps you learn better. 10gr12M1

Consistent with the national study, this study indicated that students were more likely to perceive themselves as engaged socially and intellectually in school when there was a positive school and classroom climate. Student comments suggest that a factor in their learning was in the teacher having high expectations for student success. Students claimed that they were likely to be more engaged when there was a high expectation of success and, at the same time, when they were appropriately challenged. Furthermore, students appeared to feel that they were more likely to be intellectually engaged when there was effective use of classroom learning time, a positive disciplinary climate and when there were positive teacher/student relations.

In summarizing this important section, students seem to perceive effective teaching occurring when there are positive teacher-student relationships and when teachers having well-established and clear class rules. Students also varied in their preferences about structure in their classes. Students commented in less positive ways about textbook teaching, overload of assignments and too much homework. They felt more engaged in classes where teachers exhibited passion for their subjects and where teachers knew their subjects as reflected in their enthusiasm for teaching. Students had very positive comments towards classes where teachers had fair and transparent practices in tests, grading and assignments; where they are flexible and open-minded, and where teachers have a positive approach to teaching and learning. Students

reported that they felt engaged when classes were interesting, varied, entertaining, and when the teacher had a good sense of humour. The students were mostly positive about their teachers. However, students spoke occasionally about teachers who were not supportive of their learning. Without using names, students described teachers who were not prepared, over-used the textbook as a source of information, overloaded students with homework, lacked a range of instructional and assessment practices, or used rote-learning activities. Students expressed concern about teachers who did not show respect, empathy or interest in them as people, who did not give permission to students to be creative or enable them to follow their passions, and made assumptions about students without really getting to know them. Teachers do make a difference. However, the result can also be quite deleterious if the quality of their teaching is lacking.

4.5. Are Students Being Instructionally Challenged in Their Learning?

4.5.1. *Results of the Survey: Instructional Challenge and Flow*

The WDYDIST survey included five category measures of school and classroom climate: (a) effective use of classroom learning time—extent to which important concepts are taught and understood, efficiency with which class time is used, degree to which objectives are aligned with assignments and evaluation, (b) teacher and student relations—treatment and support of students by teachers, (c) classroom disciplinary climate—student internalization and conformity to classroom norms and values, (d) expectations for success—extent to which students perceive teachers as valuing achievement and having high expectations for student success, and (e) instructional challenge—the extent to which students feel challenged and confident in their subjects such as Mathematics and Language Arts (Willms et al., 2009).

The fifth measure within the school and classroom climate category, called Instructional challenge, is based on the theory of “Flow” (Csíkszentmihályi, 1990; Willms et al., 2009, p. 12), which postulates that people become deeply absorbed and engaged in an activity that is of deep, intrinsic interest. Within the Intellectual challenge category of the survey comparisons were made among students who are highly engaged in school to those with low engagement. This concept is described in more detail in Chapter 2.

Depending on the combined interaction between the levels of challenge and skill required for a task, individuals may find themselves in various states of engagement. For example, in situations where students having high levels of skill encounter a task low in challenge, they may

feel bored with the learning experience or school may seem irrelevant. On the other hand, students with low skills faced with a highly challenging learning experience may feel apprehensive or anxious, be less engaged or simply give up attempting the task at all. However, continued low challenges for students with low skills may result in apathy. Providing sufficiently high challenges for students who have mastered lower level tasks may create the conditions wherein students can feel a sense of flow as they take on the new learning experiences. They will begin to feel interested and successful in school (Shernoff et al., 2003; Willms et al., 2009, p. 12).

In the WDYDIST survey, students were asked to respond to item statements concerned with their levels of confidence in their skills with respect to Language Arts/English and Mathematics and the extent to which they felt challenged in their school work in these subject areas. Students responded to these statements on a 5-point scale of 0 to 4 from strongly disagree to strongly agree. The scores for challenge and skills were then averaged across the six items in Language Arts/English and Mathematics respectively. The resulting average scores ranging from 0 to 4 were used to construct a 2-by-2 matrix of challenge versus skills.

The stem of the first set of questions (Table 26) was: “We would like you to think about the Math (or Language Arts) classes you have had over the past 2 weeks. Please indicate the extent to which you agree or disagree with each of the following statements.”

Students responded to the questions in Tables 27 and 28 on a 4-point scale: Never or hardly ever, Sometimes (in some but not all classes), Often (in most classes), Very often (in almost every class). The stem for these questions was: “We want you to think about the Math (or Language Arts) classes you have had over the past 2 weeks. How often did these things happen in your Math (or Language Arts) classes?”

Table 26. WDYDIST (2009) Survey Questions: Confidence in Skills

| |
|---|
| I learn the concepts taught in class easily (Math) |
| I get bored in class because lessons are too easy (Math) |
| I learn the concepts taught in class easily (Language Arts) |
| I get bored in class because lessons are too easy (Language Arts) |
| I do not do well in Language Arts tests. |
| Language Arts classes are challenging. |
| I am among the top students in Language Arts. |
| We deal with difficult material in Language Arts classes. |
| I do not do well in Math tests. |
| Math classes are challenging. |
| I am among the top students in Math. |
| We deal with difficult material in Math classes. |

Note. There were six items for Mathematics and another six for Language Arts/English. I note that high school students in British Columbia do not typically use the word Language Arts and instead, use the word English. This might have presented some confusion for students.

Table 27. *WDYDIST (2009) Survey Questions: Level of Challenge in Literacy*

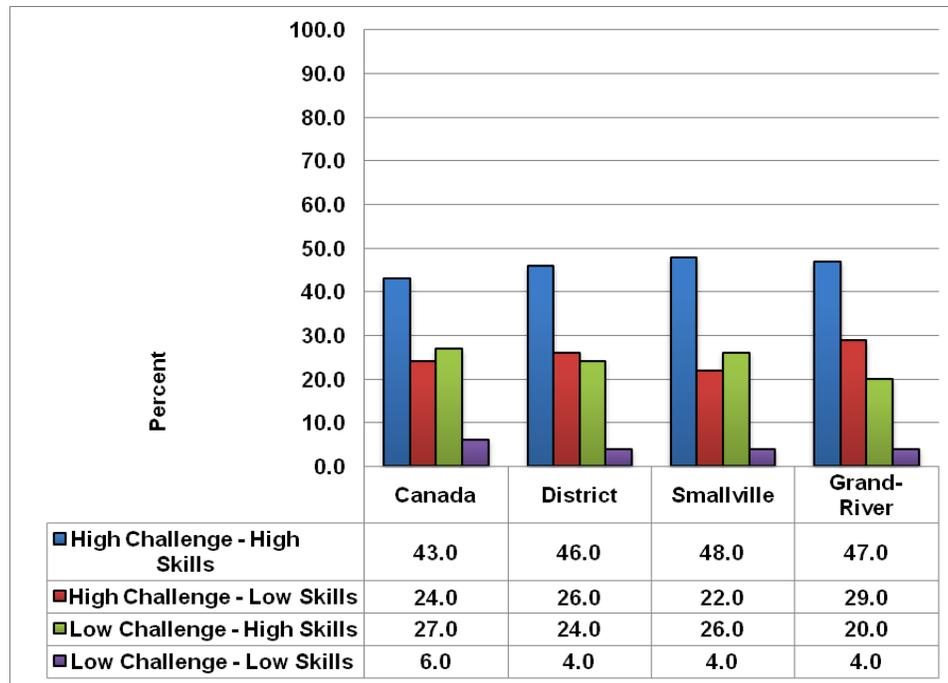
We gather information about an author's life.
We identify techniques used by an author.
We look at writing with attention to how we constructed sentences and paragraphs.
We write an essay or story of at least 2 pages.
We explain the meaning of a poem or story.
We read literature that is interesting to students our age.
We analyze the writing strategy used by an author.
We critically evaluate an author's work.
We learn how to develop an essay or story that has several parts.
We recognize rules of grammar or parts of speech (e.g., nouns, verbs, adjectives).
We interpret the meaning of a written work.
We use new writing techniques.

**Table 28. *WDYDIST (2009) Survey Questions:
Level of Challenge in Mathematics***

We memorize definitions and rules.
We learn the value of math concepts in science and industry.
We think about the approach that we used to solve a math problem.
We work on problems that require us to use 2 or more different concepts.
We interpret graphs or charts.
We apply math concepts to real-world problems.
We examine the ideas underlying math concepts.
We look at different ways of solving a problem.
We create problems that require the use of the concepts we have learned.
We use worksheets to practice basic facts.
We explain important math concepts.
We solve word problems.

Figure 22 reports the data on the proportion of students being challenged and feeling confident and successful about their skills. The data compare the national WDYDIST survey results to those for the Frasersview School District and the two schools that were study sites for this thesis research.

Figure 22. Percentage of Fraserview School District Students Reporting Feeling Instructionally Challenged and/or Confident about Their Skills



Note. Data summarized from the WDYDIST survey for Fraserview School District (2009). CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

The Fraserview School District and school percentages are similar to the national WDYDIST results (see the table in Figure 22). These results indicate that over half of our students report rarely enjoying that heightened feeling, which balances challenge with the students' level of skills. Students apparently rarely experience a state that might be termed flow as described by Csíkszentmihályi (1990). Many students indicate being bored or anxious about their schooling, while others indicate being apathetic towards school. Given that more than half of the students surveyed nationally and at the district and school levels report these perceptions of their school experiences, it is little wonder that some choose to completely drop out of school.

By setting high skills and high challenge at 1.00 as the reference point, and using the odds ratio analysis as described earlier, Willms et al. (2009) revealed that when compared to students experiencing a sense of flow, students who reported lacking confidence in their skills were less likely to be engaged in school as indicated either through participation in school activities, having a sense of belonging, attendance at school or by their perception of intellectual involvement in their learning (p. 29). Low skilled students who experience low levels of challenge are the least likely to report engagement in schooling. Compared to students who are highly

confident in their skills and who are sufficiently challenged (survey response patterns set as the reference point), the chances of low skilled/low challenged students being engaged were rated at 71% for participation in school activities, 44% for having a sense of belonging in school, 34% for having regular attendance and 14% for being intellectually engaged in school. Table 29 illustrates the level of instructional challenge and its relationship with student engagement.

Table 29. Relationship of Instructional Challenge with Student Engagement

| Instructional Challenge | Participation | Sense of Belonging | Attendance | Intellectual Engagement |
|--------------------------------|----------------------|---------------------------|-------------------|--------------------------------|
| High challenge, High skills | 1.00 | 1.00 | 1.00 | 1.00 |
| High challenge, Low skills | 0.79 | 0.54 | 0.50 | 0.27 |
| Low challenge, High skills | 0.97 | 0.86 | 0.83 | 0.72 |
| Low challenge, Low skills | 0.71 | 0.44 | 0.34 | 0.14 |

Note. Odds ratios in bold shaded boxes are statistically significant $p < 0.05$). Flow held at 1.00. Reproduced with permission (Willms et al., 2009, p. 29).

Students having high skills, but who are not challenged sufficiently in school, are less likely to be engaged than their counterparts who are challenged intellectually to use their high levels of skill. The survey data at the district and school levels is consistent with those in the national WDYDIST report. This would suggest that the skill-challenge relationship pattern is also likely to be found in the Fraserview School District and schools.

4.5.2. Results from the Student Interviews: Instructional Challenge and Flow

In the group interviews, students were asked about when they felt truly engaged in what they were doing, when they felt being “in the zone” or experienced a sense of flow. The student participants spoke about feelings of flow and engagement, about flow as “getting lost and being in the zone” during work in areas such as English, art, drama, sports and physical activity, drafting, and photography. Students also described conditions in which they lost the focus, were distracted and bored.

The following is a composite of the questions that I asked to frame this topic during the group interview sessions. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview. Following this are some student responses excerpted from the interviews, which are exemplary of student opinion on this topic. The excerpts

are representative of the voices of students from the two schools. A dotted line separates student responses from different interview groups.

Interviewer: There are studies that talk about getting in the zone, getting into the flow of things. And writing is a good area where people forget time. You know it's suddenly, it's 2:00 in the morning and you've been writing and you've forgotten about time. Or you're playing a video game and you forget all time. You're just engrossed in it. You're just caught up in it. If you play sports sometimes that's the same thing. You're just kind of in that zone of play.

Do you experience that at all in your various ways of life? It's connected with something called flow. It's when you're doing some schoolwork and you, or you're working on a project at home or you're doing something and you get into this zone where you forget about time. Maybe you're in sports and you're playing in a game, a big game, and you forget all about time and just really get into it. Being on a roll is kind of like this. When you're working on an assignment or you're in class working on something or at home working on an essay or a project, when you're immersed and forget what time it is. You're in the zone.

What makes you get into that zone? When you're doing that, do you feel good about what you're doing? Does it make you, when you're doing the actual assignment, does it make you feel good?

Experiencing Flow: Within a Social Context...

Darius: I love classes when like you're working in a group with like say some of your friends and you just got like a booklet to work and like you just have to do in the class and you're just, just doing it. It's so much fun. You lose track of time so easily when you're with your friends just doing something, just like doing a booklet or a lab or something. 8sm12M4

Zane: Listening to music too. Do a worksheet and before you know, class over. 8sm12M1

Jennifer: I find that like I remember like back in Grade 8 when we were doing English terms and me and my friend were learning them and like I think that, because me and her were learning them together and like having fun doing it, like I still remember all of them. And like it's just 'cause I remember having fun learning it and like 'cause I was with my friends. 8sm12F4

Experiencing Flow: Through Hands-on Work...

Melanie: ... when I start working on woodworking and I just lose track of time because I'm so into it. You kind, you just kind of forget what else is out there because you're just so focused on building it. 7gr10F2

Interviewer: So in terms of the woodwork product at the end, how do you feel when you've completed that product?

Melanie: Oh it's a good feeling 'cause you just look at it and it's like "oh my gosh, I just built that and it's really nice and it's mine."
7gr10F2

Experiencing Flow: When Time Goes by Quickly...

Kyle: ...in drafting you always feel like you could add a little bit more just before the bell goes and then you never can. Just feel like you can get that last piece on.
3gr08M2

Experiencing Flow: When They Are Engaged...

Interviewer: [to the group] I'm coming back to you now in terms of your baseball or in dance or, it works in other areas, in subject areas that are more core—Math, Science and so on—and it's when you get into the zone. You kind of get into that flow of things when you forget time, you just get into this flow. When do you get into flow?

When do you get into that time where you're working on something? Do you have an example of when you've been doing that?

Jennifer: I think that'd be like you know you're, you'll be learning something in class and then you'll get off on a tangent and have like this huge like class debate or class discussion over something and then it's like the bell rings and it's like "oh but we had so much more to like talk about and stuff." And you just, like next class you're back to doing notes and stuff. But like, also like with dance also is when you're, when I was learning a new routine and you, I was finally getting it and then it's like "oh now, ya it's time to end it." And it's like "oh but, I didn't, how did an hour just go by?"
8sm12F4

Interviewer: [to the group] So think about this... You mentioned that you play basketball. Have you ever, particularly in sports as the example, got into the zone, (not the basketball zone, not the zone on court), but kind of in your mind. Like you forget time and you are just playing and you're really into the flow of things. Have you ever experienced that in different ways?

Ann: Well, when I'm like dancing, like in competitions and everything -- right before I always go on stage I always forget my dance, but like once I hear the music something just like clicks and like I don't even like know what I'm doing but I'm doing like the right things. And it seems like I've only been on stage for like 30 seconds and then I'm like off-stage. [[p. 213 - Link](#)]
1sm11F2

Natalie: When it goes by quickly. 9sm12F2

Stephanie: Or you're sad when it ends. 9sm12F1

- Stephanie: Every, I don't know, just every Drama class I've ever had you just, it's your, I don't know. You have a way, something works out in your head and you just want to make sure it works perfectly. Like you have a way you want to act something out and you just want to make sure it works out fine. So you practice it and practice it the whole class and all of a sudden you don't have enough time to do it. Like time's run out.
[p. 213 - Link] 9sm12F1
- Sarah: ...when you're like, for me Biology. I like Biology, so Biology just passes by. It's like 1 minute I just entered this class and then it's done. 9sm12F3

Experiencing Flow: During Sports and Physical Activity—Focused and in the Zone...

- Jean: Working on hitting at practice. Just kind of like trying to, trying to perfect your swing as much as possible and then just like, before you know it practice is done or hitting is done and then you move onto something else... 8sm12M2
-
- Julia: I find myself in that competitiveness of like a sport, like you get into the zone like 'cause like one, your teammates are relying on you and too, you want to do good and like I, for school, like getting into the zone means like I shut my door and like I put on my iPod and like read. And I, like sometimes I'm not necessarily that productive but then sometimes like I can (be), but that's the way I work... 10gr12F3
-
- Charlene: Well when we're dancing we kinda try new things and that and start new routines and that. And then you build on to them and add more and more things so that you just get caught up and then all of a sudden class is over and you're like "what?" 3gr08F3
- Nathan: Like during say a football game, you don't notice how fast, it seems like it's going a lot faster than it is 'cause you get caught up in it. You don't notice the score, the time. 3gr08M3
- Deanna: Well when I'm like dancing like in competitions and everything like right before I always go on stage I always forget my dance, but like once I hear the music something just like clicks and like I don't even like know what I'm doing but I'm doing like the right things. And it seems like I've only been on stage for like 30 seconds and then I'm like off-stage and stuff like that. 6sm09F2
- Lacey: Well sports. Like volleyball, I play volleyball and it's just like if you can get it, like you're starting to like be on a roll and stuff. 6sm09F1
- Leah: Well I play soccer and that's like the same thing. You don't really notice anything else but the game. 3gr08F4

Experiencing Flow: In English and Art Class...

Kathy: Either English or Art (favourite subjects)... It's just something, I like writing stories and I like writing essays and all that stuff. And I like having my own thoughts and putting them down on paper. Just little things I get in my head, I just jot them down... (In Art) kind of the same reason. I like, having like an image in my head and then being able to put it on paper in the same sort of way I guess. Ya. I kind of lose track of time sometimes... I kind of like, things with like a lot of colour. Usually sunsets or something like that. 1sm11F3

Jean: ...and like at school I'd be like in Bio doing a dissection you kinda wanna, you almost want to take too much time with trying to just explore around whatever you're dissecting, but then class is done... 8sm12M2

Experiencing Flow: In Music and Drama Class...

Justin: Music definitely.... You just kind of forget about time. 3sm09M5

Laura: Well I'm attracted to drama because it's really fun and like you just get to express yourself. And I don't know, I always look forward to it. It's just there's such a range of things you can do. I don't know I just, I think it's you get to be a different person almost. Ya, that's pretty much it. 7gr10F1

Interviewer: Tell me about that. So you become a different person.

Laura: Well characters, like different characters... She gives us a topic and then you can create a character like that would work with the topic and then ya I guess you just become a different person. You like forget about yourself and ya, I guess... But ya, you just kind of forget about, ya I guess you get really into it. 7gr10F1

Experiencing Flow: In Metalwork Class

Ben: ...probably when I learned how to weld in Grade 9. Ya, I don't know, I picked it up really quick and I liked it... we just started off just welding random pieces of metal together until we knew how and then we made a safe. It was pretty cool. I don't know I guess it was, I don't know I just kind of sit there and weld and I sit there and you just watch yourself do it and it's fun... you get into the zone. I don't know. It's just kind of zone out and just watch yourself do it I guess. It's fun. I just like working with my hands in general. Just building stuff. [p. 213 - Link] 1sm12M2

Experiencing Flow: In Drafting Class...

Brenda: Well I guess I'm like really into, like I'm really interested in drafting so like that way I get more lost in it. But that class like has always like gone really fast for me and, I don't know, everything you do like something I'm interested in, something like I want to get done. And like I'm such a perfectionist like ... because like I want to make sure it's perfect because I'm like want a really good mark because I like it so much. 7gr10F5

Experiencing Flow: In Photography Class

Jasmine: It's really easy like when he gives you a camera and you get to go and shoot. It's really easy to forget time because like you're so concentrated on getting the exact thing, like 'cause you really want him to like it too 'cause you want to show what, sort of what you're thinking and what you're doing. So you're just so focused on getting something that you really like and are proud of. So it's really easy to get lost. 7gr10F6

Experiencing Flow: In Focused, Challenging, Mental, Intellectual Activity...

Shayne: Sometimes in Math like I just like start doing work and I just get like really zoned. I just like really want to do it and ya, I get it done in like a few minutes and then I'm like all focused. 3sm09M4

Natalie: Well if you're working on a project you've got like your creative juices flowing and you've got the idea in your head and you've got the tools in your hands and you just want to keep going until it's done. 9sm12F2

John: When you actually like learn something new, actually like, like it and you know it really well. You feel right like doing it. It just comes to you easily. John 6sm09M2

Experiencing Flow: With the Teacher in the Teaching and Learning Moments...

Sasha: I think it's happened a lot when teachers, maybe they're not on subject, like they were talking about a subject and then they go off and talk about their own personal story and kinda, we can relate to them in a way see okay it's not just about these notes. It's also about real life stuff. Kind of get lost in that. 8sm12F2

Getting Out of Flow: Losing the Focus Due to Distractions and Boredom...

Melody: It's really hard to focus especially when a lot of classes are doing, just doing review. So you get booklets and you'll work on it but 10 minutes later you kind of think about something else and then you've got to get back to it—Especially in my Math class. I sit next to the window and it's really nice outside... Hard to focus. 8sm12F1

Jennifer: I also find like when the teacher's just like, they give you the notes package and then they're just like reading it off. And you're just like sitting there. It's like "I can just going to read this on my own time." And then you just zone out. You don't pay attention at all and then all of a sudden it's like "okay now do you know the answer to this?" And you're like "wait, what?" 8sm12F4

I was conscious of trying to avoid using leading questions during the interview discussions, especially in this particular area of my study. I introduced the concept of flow with great care. At the outset, I wondered if students would even comprehend what I was getting at. It turned out that they quickly grasped the concept of flow and my fears were allayed. Students spoke about experiencing a sense of flow in a variety of ways using terms such as being in the zone and when time flew by. They described times when they were doing hands-on work, being in a social context, during sports and other physical activities, when they were focused on a difficult task that was challenging, requiring of mental concentration and needing deep intellectual thought. This might have been during a particular class situation. Students mentioned several subject areas including PE, English, Art, Photography, Music, Drama, Metalwork, and Drafting. I noticed that these were classes were in subjects that invite hands-on, active, physical and creative work. Students talked about these circumstances as being engaging, focused and occurring during fairly specific teaching and learning moments. Students also mentioned times when they lost this focus—when they became bored and distracted.

4.6. What Meanings Do Students Have Regarding the Purposes, Requirements, and Importance of School?

4.6.1. *Results from the Student Interviews: Importance of Schooling*

For many students, school is seen as a requirement, a stepping-stone, a place to go and be prepared for the future. For some it is a social gathering place, and for others, it is the way to get to college or university. Others simply perceive school as a location for organized activity such as sports or clubs. In the group interviews, I asked students about the purpose, requirements and importance of schooling. Students had varied opinions about the relative meanings and importance of schooling. The following is a composite of the questions that I asked to frame this topic during the group interview sessions. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview. Following this are some student responses excerpted from the interviews, which are exemplary of student opinion on this topic. The excerpts are representative of the voices of students from the two schools. A dotted line separates student responses from different interview groups.

Interviewer: So what is it about school—is school important? Why do we have school? Do we need school? We have something called the “learning community” and it includes students, teachers, administrators and other staff that might be in the school.

How would you describe your school? Is it a learning community—where learning really happens? Could you learn without having school? Is school, the place of schooling, important for you?

Consider the typical four walls of the building and coming every day to school. Could you learn in a different way? Do you always learn in the classroom? Is that the only place where you learn?

How we structure schooling—right now you go from one subject to another to another to another—would that be something to consider changing?

Anthony: Well basically school is our alma mater, which is Latin for “nurturing mother.” Basically gives a backbone to like, send you off into the real world because without school, let’s face it, we won’t be anyone. Like without school we can’t become anything. Like even if you want to work in a factory, you still have to have high school, a high school education, like a diploma. So high school actually like it, school itself it prepares you for the real

world and I think it's like one of the most essential things you could ever do for yourself. [p. 214 - Link] 5sm11M3

Amrit: I think it's like a stepping-stone to like the rest of my life so it's kind of something that like I have to go to so then, to get an education and then I have to get like a job and then, you know, have the rest of my life. And then it's kind of like a social aspect of my life as well, definitely like, like all my friends go here so. 5sm11F1

Joe: It helps build, build your future... and making friends. 1sm11M1

Ann: Ya it's kind of more helping others even if you don't know them. And if you don't, well I wouldn't say care I guess but it's just about being better people. 1sm11F2

Gurdeep: A stepping-stone I think. I think high school is more of a stepping stone 'cause... Well just 'cause with high school you're just given courses that like you need, whereas university you can actually branch-off into choosing courses that will relate to what you do, so high school's just a generalization of just studying and preparing you. [p. 212 - Link] 10gr12M1

Maryann: Because that's I think what's important about school. That's where you learn all (about) yourself. You don't learn it from the (writing) teacher telling you to write an essay. That's not how you learn about yourself. It's the social aspect of everything. You're interactions with others. 7sm12F4

Derek: I guess life up 'til this point, so much of our time is spent in school, right, so a lot of, you know, who we are and what we go through happens in school, right. So I guess a lot of those experiences get incorporated and I guess they kind of shape and mold who you are. And I think that's like the great thing about our schooling system, right, is it's very, you know, it's very free thinking and liberal in the sense that, you know, people will teach you things and then you make your own connections and you apply it to yourself and you make this learning experience personal, right. And then you carry that on to the future with whatever you do, right. [p. 214 - Link] 11gr11M2

Heather: I would say informative. It's fairly self-explanatory but it also helps you to discover who you are, you know. And in reality you take these courses to find out what you like, what you want to pursue and everything. And it's just like information like about the world around you because I know in Planning 10 I believe we like learned about jobs and stuff, how we should like take the

first steps. 'Cause like usually in Grade 10 is when you start getting your first job, getting out there in the world etcetera. So it really helps you all round. 11gr11F2

For some, school is sitting in classrooms doing assignments, homework, and tests...

Jim: Kindergarten to Grade 12, that's, I've been here a long time. Like I don't mind it but it has been a long period of my life that I've spent inside of a school and inside of a classroom. And that's kind of one of the reasons why I don't want to go to university like this soon is 'cause I just cannot sit in the classroom and do tests and assignments anymore, not this soon in my life. It's just the way it is. I guess it's just my personality I guess. I'm not like I'm not a classroom learner. I don't really enjoy it all that much. 12gr12M4

Allison: ... I'd say [its] almost like fascinating. Like think of the whole concept of a school. It's like a building and you go there, you go there and there's a bunch of kids like around your age and you go there and sit in a classroom and there's someone who stands up there and like teaches you something. And you do that for like... [p. 212 - Link] 12gr12F1

Allison: Now, like how many years have I done that? 12gr12F1

Arman: 13. 12gr12M3

Allison: 13 years. Like that's, I don't know, I remember like sometimes sitting in elementary school and, just like even through high school, and sitting here and going like "this is weird" like. Like do we actually have to do this, like? 12gr12F1

Andrew: Well I don't know, I think on different planets they probably just inject knowledge into you. 12gr12M2

Jim: Well it's like watching Star Trek and they're talking, the Vulcans are in their little (state of mind) absorbing knowledge. It's like oh that's pretty weird. 12gr12M4

Arman: It's efficient! [p. 214 - Link] 12gr12M3

Don: What could be the word to describe school in the future? I would have to say, "school." As it is 'cause well the school system has been refined for quite a few years really. Like history (in education) has been longer than we really realized it. Like a couple of hundred, what's a couple of hundred years but that's a long time and the school system is being refined, being redone in all ways, shapes and forms to what we have now and we've got a break-on great system. We can only change it so much and we can only really inspire these kids so much. I mean "I just want to go home and play X-Box." Like how, all we can really do is try and make it a little more comfortable and well I guess that could be the word—comfortable. Just make it a more comfortable experience 'cause we can only change school system so much and it's more really reflective on how the kids themselves and the teachers themselves act in the environment. I believe. I believe so. We all do, we all do really. How we react

with each other and with ourselves. How we all react. We all
have a part to play. 12gr12M1

This section of the group interviews with students was designed to identify student perspectives on school. I wanted to know if students perceived school simply as a necessary requirement in order to prepare for future work or post secondary school. This section was closely aligned with the concept of institutional or academic engagement. Students spoke about school being an important place that is more than a stepping-stone or preparatory. Some students seemed to interpret their school experiences on a holistic level as a system that nurtured and shaped each person for their progress through life in their respective futures. This is accomplished through the mix of interactions and experiences within the social milieu that collectively is a place called school.

4.6.2. Results from the Student Interviews: Project and Challenge-based Learning

During the interviews, students had an opportunity to express their opinions about projects and challenge or problem-based learning. They discussed group member selection, individual learning within group projects, group interdependency, the choice, relevance and creativity of meaningful projects, and the assessment of projects. Below is a sample of the questions that I asked to frame this topic during the group interview sessions. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview. Following this are some student responses excerpted from the interviews, which are exemplary of student opinion on this topic. The excerpts are representative of the voices of students from the two schools. A dotted line separates student responses from different interview groups.

Interviewer: There's something called "problem based learning" or "project based learning"—if you think back to your own learning experiences, are there any active learning projects that come to mind that you've done?

It's hands-on. You're working with your hands, you're kind of problem solving in your mind and visually, seeing it in action... How about you in terms of hands-on? Do you get a chance to have a hands-on approach in any of your classes that stand out more than others?

How about working in groups or teams on projects? What's a downside of working in groups? Do you like doing projects? When don't you like doing projects?

Students' comments on individual learning within group projects.

Stephanie: Well in like, in like music or acting you can read out a script and then, but to show that you've actually learned something you have to actually do it. Like you can read out how to play a guitar, you can read it out, but you're not, like you didn't learn anything at all if you don't know how to actually do it. So with Biology like if you read it out and then have a project or something. I, I actually really like end of the year projects. Like there's not a lot of pressure because you have the time to work on it and it's not like, it's not like you have all this pressure to answer this one question right or wrong. Like you know what you need to do on the project. There's a criteria sheet and you just do it. 9sm12F1

Jackie: I think group projects are, they can be useful and I think group learning is really a good idea but the way we were getting group projects is we get a piece of paper and it has criteria. And what we do is we sit down in a group and we divvy up the group projects and everyone goes off on their own anyways. And it's not group learning. It's, it's individual learning and then you put it back together and you glue it on the little poster and hand it in. That's what happens. [p. 214 - Link] 4sm11F5

Students' comments about the selection of group members in project work

Tejbir: Well it's like I think we should be able to like pick our group because like sometimes when you don't pick your groups, right, you don't get like, you don't get the right blend of like strengths and weaknesses, right. You want to pick people who are like a little bit different, right, who have like—but still like good strengths. Say like I'm not like an art person, right. Say Naomi is, right, and we're doing something like, some kind, some kind of like poster project or something, right. Obviously like I would want her in my group to help me with (the) art part. I could probably help with like the writing, the description. Right? Where it's like if you don't get to pick your groups you get like a big like mismatch, right, and you don't get the best out of what you could do for your project. 2sm10M6

Students' views about group interdependency during project work

Tejbir: ... you get to like, do your own kind of thing, you know what I mean. You get to like, especially when it's like group projects too because when like you're on your own, right, you gotta, it's a lot of work right. But when you're like with other people you can just kind of share your ideas. Like bounce ideas off them. And it's kind of like what's, I think what schools about right. It's like kind of learning from other people because I think I could learn more from just like talking to people right and like viewing their ideas than like just listening to a teacher like read a textbook. 2sm10M6

Balwant: It's better that way because like one of your friends that you're doing your project with, you're not, just not doing your work for the teacher. You're not doing your work for your friends. So like not doing your work for your teacher's easy. Not doing work for your friends is not so easy 'cause then they're like "yo man, why aren't you doing your work?" 2sm10M1

Kirsten: ... also if you're working with your friends like you don't have to feel bad for being like "do your work" but if you (are) with someone that you're not friends with then you can't really like, like get them to—you can't really bug them about it because you're not like, you don't have a personal relationship with them. But whereas if your friends, if it's your friends you can like, they won't take it personally when you get mad at them for not contributing. 2sm10F2

Jonah: When you're in a group you don't have to rely on yourself to like, have to get everything done. It can be like a lot of stress too. But when you're in a group you can like rely on other's strengths to help in others' weaknesses and ... you each add a little part to your thing to get the overall outcome. 2sm10M2

Balwant: I like to work in groups obviously but when, when the teacher makes your groups and you don't get the choice to pick your own partners, that's when everything just goes bust up. There's so many projects that I just handed half in and the other half hasn't been handed in and I lose marks because of that right. Why should I? [p. 214 - Link] 2sm10M1

Jonah: It's like if you're out in the real world, there's one that's lagging behind the whole team's going to get behind. But if everyone contributes their own part everyone's going to help. [p. 215 - Link] 2sm10M2

Students' perspectives about having choice when doing projects

Natalie: Well in Grade 10, I did do a project that was really interesting but it was sort of like a project/presentation because we were divided into like 10 groups and everybody had to cover a decade. My group got the short stick and we got a really bad decade... we got the '30's, which there's a lot that happened in the '30's. 9sm12F2

Stephanie: I love the '30's. 9sm12F1

Natalie: - and then it's like, you know, lots of stuff did happen in the '30's but it was, you're based by, you were critiqued by your peers and so well it wasn't a happy time. It was the Great Depression. So we had a lot of information but you had to also make it fun because if it's not fun well then nobody likes it because it's boring. So, you know, like—We taught people how to swing dance and we had kind of like our depressing half and we had our fun half and we fed them peanut butter cookies 'cause that was invented in the '30's. And, you know, you feed them food. They like food. 9sm12F2

Students' views about relevance and meaning in projects

Charles: ... I would have to say when we do a project and somehow the teacher relates it to us and makes us want to do it more because we see how things relate to our life and it's a good way to do it. Like I remember in Grade 7 we did this project about our life and, you know, how it interacts with other things around us. It was kind of easier and funner to do. 3sm09M2

Sean: Like the hands-on learning. Like building a shed. Like, making like different projects in like shop classes. 8gr11M1

Neil: It's probably Marketing because we have lots of projects in Marketing so we get to do what we want to do for the projects 'cause it's not just like answering questions... just recently we did a commercial for a product that we had to make up and we got to do whatever we wanted for the commercial. ...the project was these golf shoes that they have a button and when you press the button the spikes go up so it helps not ruin the green on the golf course. So we did a commercial for that. [p. 215 - Link] 9gr11M2

Students' points of view about how projects are assessed

Chris: "You get 49½ out of 50 because someone didn't put their name on it." 4sm11M3

Will: It's so true with posters. I'm not good at that. 9sm12M2

Zach: ...when it comes to projects it's nice to have baseline criteria and then have the openness to adjust it if you believe it's, like it should be like Info Tech—our (option) when we do projects we're given a base criteria and then as we go on we can talk to the teacher and maybe add some, add some sections to it for if we think it's necessary or it might add some uniqueness to our project. [p. 214 - Link] 9sm12M1

Natalie: I hate projects. 9sm12F2

Stephanie: I love projects. 9sm12F1

Natalie: Like it's a lot of work and usually half of your mark is based on 'is it pretty? ... Like I don't see how my making everything rainbow coloured really contributes to how much I know. [p. 214 - Link] 9sm12F2

Will: So it was 50 marks for the questions, right—so 50 marks of the questions but it was out of 140. So the others were just how pretty you could make it, how creative and I think she was trying to give away marks but I'm good at that kind of stuff. I did the 50 questions, got the 50 marks there but when it came

to the creativeness I didn't do as well so I only go 99/140 on the project. 9sm12M2

Natalie: Well there's no real neatness to it but it is based on like how creative was it or how entertaining—the entertainment was a whole portion. There was also, the majority was made up of your information but, you know, if only half of that is your information and the other half is how pretty you make, well if you don't make it very interesting well... 9sm12F2

Students' views about being creative and engaging in active learning through project work

Dianne: I would have to say it's art and metal class because our class you actually get to work with clay and then it's actually more, it's actually fun. You can actually make pinch pots, like whatever you want to for your first project. ... in Metal I made jewellery and I actually made a metal rose and I making a chain and we just finished up the butterfly. 6sm09F5

Kirsten: ...I like it (Science) because I find it fascinating learning new like stuff, 'cause they talk about stuff that you normally don't talk about and you, I don't know. I just find it interesting. I tend to really like chemistry. I like working with the periodic table and formulas and stuff. 2sm10F2

Interviewer: ...And have you done any labs in science at all?

Kirsten: ...we learned about like acids and bases and we mixed chemicals together and watched the reactions and stuff. We mixed a bunch of different chemicals together and, in a little container thing, and we had litmus paper and we got to watch the colour change to tell if it was acid or if it was base. 2sm10F2

Interviewer: ...Why was that kind of interesting for you?

Kirsten: Just watching the reactions and how it changes from one to another and the colours and stuff. 2sm10F2

The student (Peter) commented that he liked taking things apart and putting them back together and making circuit boards in Electronics.

Peter: ...you get to learn about like electronics, like the stuff they use in the computers and stuff and how they work. 2sm10M5

Interviewer: So are you doing any electronics now?

Peter: Ya. It's a split. It's a Grade 9/10. So we're doing all the Grade 9 projects. We're working on this Sammy Snake project. It's like a nerve tester thing with metal. You know those two pieces of metal—like if you touch the metal the buzzer goes off. It's like one of those. 2sm10M5

Interviewer: That's kind of cool. Are you thinking of that for maybe career?

Peter: Not really. 2sm10M5
Interviewer: What do you want to do?
Peter: More of Mechanics—like motorcycles and cars. 2sm10M5

In raising questions about how students learn best, hands-on project work was a predominant theme. Projects can be misused, handled as *busy work* and assigned as homework versus making the experience meaningful, relevant, practical, and multi-disciplinary. During the group interviews, students commented on individual learning within group projects, the selection of group members in project work, group interdependency during project work, about having choice when doing projects, the relevance and meaning of projects, how projects are assessed, having the opportunity to be creative through projects, and the ability to engage in active learning through project work. In my view, project, problem-based and challenge-based learning should become a necessary component of the educational experience. These could be accomplished through more integrated subject-area work among high school departments. Curriculum requirements could also require some aspect of the high school experience to incorporate school-based, community and/or global initiatives that are based on project work oriented towards solving problems or challenges.

4.6.3. Results from the Student Interviews: Teaching and Learning with Technology

Students were asked about the role of technology in teaching and learning. On occasion, I would probe and delve a little further into the use of social media and how they play out in schools. Below is a sample of the questions that I asked to frame this topic during the group interview sessions. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview. Following this are some student responses excerpted from the interviews, which are exemplary of student opinion on this topic. The excerpts are representative of the voices of students from the two schools. A dotted line separates student responses from different interview groups.

Interviewer: Tell me about technology. Does technology play a role for you?
Does technology help you in your own learning? How do you use technology?

Do you all have access to computers pretty well? Do you use computers in the lab or the library or do you use them mostly at home? If you had a laptop, would you use it?

How many of you use social networking sites such as Facebook? Twitter? MySpace? Nexopia? Skype? Hotmail? Gmail? Second Life? YouTube—instead of watching TV?

Do you like playing video games? Can you learn school material through video games?

Students' ideas about the importance of technology in the 21st Century

Derek: I think we have to incorporate that technology, right, because, you know, further down the road we're going to be utilizing it and it's going to help us ... I guess it's detrimental if you don't know how to use it because the way the world is turning you don't want to be behind the 8-ball, right. 11gr11M2

Ingrid: (re the future) Technologically advanced definitely. Like now like we're just getting newer computers downstairs or newer websites are being like made. By the time, like let's say if any of us have kids and our kids go into elementary school, Kindergarten is going to be completely different from our experiences. Like even looking back at pictures I was like "whoa that was only like a couple years ago but it looks really, really old." 11gr12F1

Students' comments about equity of access to technology in school

Zach: I actually bring my own laptop with me. I got it for a birthday present 2 years ago and I found that when I brought it, I was actually more productive in actually writing my notes, doing my work. I've actually found it really helpful because I also have Office™ available to me whenever so I don't need to try and find time in the lab or anything. So this way, I'm not limited to a time in the computer lab or class time or anything. And I have it all with me and I also don't have to rely on like technological failures like if my USB (memory stick) breaks in between coming from home to school with a project. [[p. 217 - Link](#)] 9sm12M1

David: ...I would like get the school to sell advertising space or something to get companies to sponsor like laptops for classes which would give us laptops and would fix the budget problem somewhat. 3sm09M3

Ingrid: (global, school-wide access) Instead of like (just) in the library, I know I did this like you wouldn't be allowed to go on Facebook so everyone would find a way to go onto it. Like, if you tell somebody you can't do something they usually (will). 11gr12F1

Students' views about the role of computer labs in schools

Ann: Well we use the computer lab to do research and we use the projectors so that we can learn stuff off [of] whatever slides the teacher puts up. And stuff like that. 1sm11F2

Students' thoughts about restrictions on access to technology in school

Ingrid: Like you'll find that there'll be teachers, like you're not allowed to game or anything even if you have a spare or even if like none of the computers are open you're not allowed to go on the computer and just be able to play solitaire or something. Like you'll get in trouble for that. So I find that a lot of students, even myself personally, would do that just because we weren't technically supposed to... 11gr12F1

Students' views about on-line learning

George: I think that kind of course (on-line) would need exposure like actual personal exposure to both the teacher and the other students from that school so as long we had days where we get together because that way you feel more of a connection to the class and you actually get something extra out of it. [p. 203 - Link] 7sm12M2

Cindi: ... I would rather have a teacher there so you could ask questions, like specific questions, you know and get help on what you don't understand. But then sometimes teachers, like everyone's already said, aren't that great. 7sm12F3

Maryann: You really lose out on the social aspect if you're not part of the school, if you're not there all day. You have to like transition during your lunchtime. That's when you hang out with everyone. That's when you're in the relax mode and it would change school a lot. 7sm12F4

Students' comments about the dependency on technology

Amrit: I definitely think that there's positive and negatives because then there's like the upsides which are like, like why do you use (it). Like just connect with people that like you don't normally talk to. But then there's like the negatives like I realize how much I actually depend on the Internet. Like if my computer crashed, I'd be like devastated... And like even like referring to like cell phones and everything, I don't know what I would do because like texting and just like calling all the time, that's like basically how I communicate with people. Otherwise I'd like have to walk to someone's house and then if they're not there, then what right, kind of thing. But ya computer, like Facebook definitely takes up a lot of my time. 5sm11F1

Students' views about the role of social media

- Interviewer: Do you use Gmail at all?
- Carlos: What's that? 1sm11M3
- Ann: It's Google mail isn't it? 1sm11F2
- Interviewer: Do you use Nexopia or Myspace?
- Ann: I used to use Nexopia, but I don't remember the password. 1sm11F2
- Kathy: Facebook and Hotmail. 1sm11F3
- Interviewer: How do you use Facebook?
- Ethan: Well I came to this school in Grade 9 and then I like keep in touch with my friends from my old school. So it's easy. 1sm11M4
- Ann: Well if you ever miss something and you have a friend from your class (use Facebook to find out) what you had for homework. 1sm11F2

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- Derek: (re Second Life—virtual reality with avatars) I don't know, just seems a little bit silly. You know, you're kind of putting yourself into more or less a game right and you're trying to live out aspirations that, you know, can be obtained in a game whereas, you know, you're kind of not going after it in real life, right, so. I guess it's that whole aspect of, you know, I don't know if you're familiar with like World of Warcraft. I did that for you know like a year and a bit and it's really, it's really addicting, right, because you are, you're playing with real people, right, so there's like an aspect of, you know, you're kind of you're in-game life, right. But I think, you know, when you look at it in reality you waste a lot of time on it where you could be putting those time and resources into other things, right. 11gr11M2

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- Anthony: ...there are some pros and there are some cons. Pros—like you connect really easily. But cons now that technology has really being advanced and like more and more of your information, personal information is on the (web), and depends on technology, privacy is becoming to a real minimum. I mean like if I was given a nickel every time someone tried to like stalk someone on Facebook, I'd be a millionaire. Like I mean they, you have so much information on there like where you live or if people actually put that in, or what grade you're in, like what city you're living in. Like some people even update their status as to where they're going and like when they're going and stuff like that and that kind of like endangers them to people that they don't really want to... 5sm11M3

- Makayla: Well me being a person who doesn't really use, well I don't use Facebook or MSN (Chat) or anything really on the computer at all. I think it really depends how much of communication you, I just, your independency. I guess it really depends. I'm more

keep to a few crowd more than, you know, so many other people but I definitely, I don't think, I don't depend on it at all. I don't think it does anything for me. I really think that part of it is, part of the reason why everyone uses it so much is because so-and-so is using it or so-and-so is using it and then one thing leads to the next thing and then the next thing you know everyone will be using Twitter. Not a lot of people here are using Twitter right but they use it elsewhere and then it comes here and whatnot. So I just really think how much time you have on your hands and what you're doing after school and what you're, what's involved in your life, I think it depends. 5sm11F3

The previous sections considered students perspectives about concepts of flow and project, problem or challenge-based learning. The foregoing section further extended these discussions into the role that technology plays in students' learning experiences. In my view, technology is an important tool to support teaching and learning. However, it is not about the technology, but about how it is used effectively as part of the educational toolkit. Students mostly reported that they are very comfortable in using technology and accessing the Internet. Issues such as equity of access, sufficient bandwidth, appropriate use, teacher training and support are important considerations. However, technology has become a necessary component of every student's experience. It does engage students and it does enable students to learn about, manipulate and model, and virtually experience content in intriguing new ways.

4.6.4. Results from the Student Interviews: What Would Students Change about School?

Students were asked about school and if they could change anything, what would they change. I framed the discussion by asking them if they had a magic wand, what would they change. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview. Following this are some student responses excerpted from the interviews, which are exemplary of student opinion on this topic. The excerpts are representative of the voices of students from the two schools. A dotted line separates student responses from different interview groups.

Interviewer: So let's, let's just ask a kind of hypothetical question—if you had a magic wand and this magic wand was a special one...and you got to wave this magic wand and you were able to change one thing about schooling, about K through 12 schooling. What would you change? Are there some things in school you would change?

Theo: ...I would change the whole... well obviously the homework is the big one for me. But I would like to make things more interesting to learn about rather than just reading out of some old textbook... 3sm09M6

Justin: Definitely minimize homework. 3sm09M5

Anita: Maybe have like one class a day and then we could do like field trips or something. 3sm09F2

Justin: The teachers could take us out and read on the steps or something, silent read outside instead of in the classroom. Like not like a big field trip like that far where we need a bus. We could also just go to like the park every couple of days. I do my homework in the back porch sometimes just 'cause it's easier. 3sm09M5

Theo: Well it's just like a routine schedule basically. I get up—school—home—homework. I don't know. Like maybe just throwing in a few more outside activities or field trips or whatever. I guess I could actually look forward to a couple (of) days rather than dreading the fact that I have to get up for school tomorrow. 3sm09M6

Shayne: Make PE every day. I don't feel that it's enough like "physicalness." Maybe in the morning or at the end of the day 'cause in the morning you know... Like I remember last year it was like you had PE in the morning. So it just sort of woke me up. 3sm09M4

Bruce: I think more advanced courses ... when we were in Grade 10 when we were kind of a bigger school we had all of these advanced courses and then it was like "okay we're all ahead." And then the plan was we get AP (Advanced Placement) courses in the end. But then last year they turn around and like "no we're not doing AP courses anymore." It's like well I didn't need to be in all these advanced courses then since Grade 8 then it didn't really get me anywhere other than have a year basically off. 8sm12M3

Christine: I think just making it more interesting, like when you're learning the same stuff in every class out of the textbook it just, you get bored almost and then you don't really try as hard. I think if everything is more interactive and you are doing different activities then you it will be more interesting. 6gr10F2

George: I want to see more courses that are challenging for students who, who'd like to take that challenge. English Literature—that's definitely a challenging course and only people who want to take it have to take it. So it would be nice to have those kinds of courses available. 7sm12M2

Deanna: Probably like grades 'cause like sometimes it seems like you're grading on like how many questions you got right instead of how much you actually learned ...if you look back on it like how much you learned in that unit and stuff. Like how much you knew before and how much you knew now instead of how many questions you got right, would be like better and stuff. Like instead of at the end of the unit writing a multiple-choice test maybe (write) an essay or something. Because essays explain it more than questions. 6sm09F2

Nick: I think that tests are like assessment right? But I think there should be more re-tests. 'Cause like if you do really bad on the test and you go back you study really hard and you get better, if you were to take a re-test and do way better, then you already know that but your grade won't show it. If you can't have a re-test, but some teachers won't do it. 5gr09M3

Eric: I'd say homework and tests. I think that I know it's one of the ways to assess student's learning, but I feel like it's so, just annoying. Like I find like if there was no tests and um like homework, I would do way better in school, like because I like learning anything but, like when it comes to homework and tests I go, I just kind of lose the feeling for learning... 5gr09M1

Brandi ... I don't know if this would ever be possible, but in the States they have, they offer Drivers' Ed at the schools and we have to pay like thousands of dollars to take ours when they offer them at their schools. And if you could have a course that was kind of like financial planning, you know, things that are like for preparing for life after high school that don't just, don't just have like the university, but like have like the financial things or the driving thing and it just kind of brings it all together. 8sm12F3

Levi: ... have some (spirit) at school 'cause like I can use an example—for the basketball games at other schools, you go there and like you can't find a seat. Everybody's cheering, they have garbage can lids and they're smashing them and having a good time. Then you come here like there's nobody in there. Nobody went to see you. 9gr11M1

Arman: ...it'd be cool if you could like hand pick your timetable so you could choose which class goes where. 12gr12M3

Jessica: ... I would say class selection and, ya I definitely would want more varieties. 4sm11F1

Ian: I know with computers there's a lot of things that you could go into but there's, we have one or two courses, which is Keyboarding, which isn't really computers, but and then Information Technology. And I know myself, like the first year of BCIT is just generalized in like the subjects and then it drops down after that into like seven different options. There's so many that you can like go into. 4sm12M2

Jessica: I'd say pursue just for the, I guess for the students in the future to, to get whatever they want. Like if they want a class or something, you know, to go to the Principal and you know, it might not be easy but just to change things that we would be to be changed to make, you know, students more motivated and make their school life more interesting. 4sm11F1

In summarizing this section, during the group interviews, students offered ideas about how they would change schools and school experiences. Their suggestions were not particularly innovative. However, students did point out issues that bothered them or that would enhance their experiences and better engage them in schooling. For example, the issue of homework came up a lot. Homework was perceived as a burden and meaningless. The perennial problem of teachers not coordinating the assignment of homework and piling it on prior to reporting season was evident. Students like field trips and would like to have more field experiences. In my view, this is a necessary aspect of education that has fallen away—perhaps as school budgets have become eroded and the complexity associated with arranging such excursions. I think short-term day-trip as well as longer experiences over several weeks and even semesters would enhance students' learning experiences. This is very connected to the previous discussions about project learning. Another theme that emerged and was captured in this section of the discussion was with respect to choice and flexibility of course offerings. Students are seeking more informative, relevant and useful experiences through their school course work. Assessment and evaluation processes were raised by a number of students as an area of concern that needs to be changed. Students would like to see fair and transparent, assessment practices. Performance-based and portfolio-based assessment that is more reflective of students' learning would be an appropriate direction to pursue.

4.6.5. Results from the Student Interviews: Schools of Today—Schools for Tomorrow

I asked students to tell me about the nature of schooling in the future. George expressed a positive outlook about schools today and some optimism with regard to schooling in the future:

George: I hope the schools of the future are like as exciting as, as it is now and that they like still keep up that sense of kind of like exploring both yourself and the world around you, like getting to learn new things about yourself and what's going on.

7sm12M2

As part of the interview process, I also asked students to give me one word that would describe schools and their experiences in schools today. Students responded willingly and mostly with a negative impression of their experiences in the schools of today. I then asked them to give me one word that would describe schools for tomorrow and what they might anticipate student experiences to be like in schools of the future. Students again responded willingly, but this time mostly with a positive outlook.

The following is a sample of the questions that I asked to frame this category. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview.

Interviewer: So first of all maybe if you could start out with just a word—one word—and I want you to think of one word that describes school for you today. The kind of school that is—like not today, but in these times.

If you had one word to describe school for the future, what would it be? School for the future... Think of all the kids coming behind and you know they're just entering Kindergarten and going on—can you think of a word that describes school of the future for them?

In order to quickly summarize the results of my 1-word question, I utilized a web-based tool called *Wordle*[™] (Feinberg, 2011). This application generates a word cloud of the text supplied. The cloud can be manipulated with colours and formats. The size of each word represents its prevalence in the sample of text supplied. For this study, *Wordle*[™] provided a quick, simple and quite visual representation of students' feelings. In retrospect, I might have asked students to write the words down on a card to avoid the potential of contamination from a previous speaker. However, I asked each member in the group to think of their word before anyone in the group spoke. I have chosen to discuss these findings in more detail in Chapter 5.

4.7. What Are Students' Perspectives about Success and Their Futures?

After receiving written submissions from a variety of individuals and groups and consulting with the education community through public forums, the British Columbia Task Force on Student Achievement issued a summary report (Wickstrom, 2003). This section of this thesis was shaped more by the Wickstrom report than by the WDYDIST survey. The Wickstrom report offered several approaches to a definition of student achievement: attainment of minimum standards, long-term success, personal satisfaction, comparative position, growth and commitment over time. From these perspectives, the task force developed the following definition: Student achievement is an improvement in learning that develops both the individual and the individual's ability to contribute to society (p. 9). This definition of student achievement assists in understanding the concept of student success as an outcome of schooling. It potentially encompasses various quantitative and qualitative measures such as graded achievement, student engagement, perceptions of satisfaction, and school completion. In this thesis research, I explored with students this broad definition of student success offered by Wickstrom (2003) as an outcome of schooling. My purpose was to see if the student participants had a similar range of perceptions and expectations about success.

4.7.1. Results from the Student Interviews: Meanings of Success

To explore students' concepts of success, I asked what success meant to them and when they might feel successful. I probed deeper to see if school marks, graduation and post secondary aspirations as outcomes of schooling drove students' feelings of success or if success was defined by a sense of challenge, desire to do their personal best or accomplishment. Below is a sample of the questions that I asked to frame this topic during the group interview sessions. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview. Following this are some student responses excerpted from the interviews that are exemplary of student opinion on this topic. The excerpts are representative of the voices of students from the two schools. A dotted line separates student responses from different interview groups.

Interviewer: Tell me when and where do you feel you are being most successful? Do you get an internal feeling of being successful at all? When is a time when you felt successful? Is there a time when you were doing a particular subject or assignment that you felt successful?

Are exams important? Are they the most important way of assessing your learning or are there other ways? If we didn't have letter grades, how would we assess success? How would we know? How would you know as an individual that you are being successful? How do you know that you've reached your goal?

Do you need a mark to know you are successful? How do you distinguish between learning and marks? Is school all about marks? Is it all about getting good marks?

Society puts that emphasis on marks and grades in order for you to get to the next step—university or college... and it is important, but are there other kinds of success for you? What does success mean?

Students defined and expressed feelings of success in a variety of ways

Natalie: When I was in tenth grade in English Challenge my teacher said to me that "it is okay to fail." And that meant a lot to me because I'm sort of an overachiever and a perfectionist and just for, when someone says that it's okay to fail it felt really good because, you know, it's not always all about the marks. It's about what you're learning or that sort of thing. And she also said another thing to me one time that "it's okay to coast. If you need to coast because you're overwhelmed, do it." 9sm12F2

Parmvir: You just kind of feel good in knowing that you did a good job when you're, when you've done, I don't know, when you've just tried the best you could and you just have a good feeling afterwards. 1sm11M5

Students described feeling individual success and achieving their personal best. Students mentioned achieving success outside of school and having a sense of accomplishment.

Lacey: Well it's kinda like you want to reach your own goals. Like you can set your own goals. Not try to get the "A's". Not everyone can get "A's" but if you set your own goals you could get them and you could feel successful. Like you could do what you set it to be. 6sm09F1

Jerry: Feel good about yourself because if you finish the project you may not get like an awesome mark on it but you still feel you did pretty well on it. [p. 220 - Link] 6gr10M3

Pamela: I don't always think about success in school. I think it's more like ya I guess just how you feel about yourself. Maybe, I'm not sure. It could be things outside of school too like if you have a job or you step out of your boundary if you're like, if you step out of your comfort zone. Maybe try things that you normally wouldn't have done and like meet new people. [p. 220 - Link] 6gr10F1

Kathy: Well I think that it's different for every person because I think in order to feel successful or be successful you have to feel like you've been successful. Like just some people are like aren't the best at school and they like, but they, you can see that they're trying their best. And I, I mean like getting graded on stuff, like the same as everyone else—I think it's kind of hard to like grade people on things because everybody learns differently. Everybody takes in like information differently and everybody treats it in a different way. So I think in order to be successful you have to feel successful first... just never failing a class pretty much I guess. [p. 220 - Link] 1sm11F3

Makayla: ... there's so much more outside of school that you can be successful on. And I think so many parents and so many people base what your report card says and I think it's an unfair opportunity and that really people don't get highlighted for what, what they might be successful in outside of school... 5sm11F3

Students described success achieved through improvement. They also noted, that while hard to achieve, success can be attained through effort. Some students did not think that it was all about marks and spoke about character and personality. Whereas, other students indicated that success was all about getting better marks.

Carlos: You kind of like, realize when you're doing better than you were before. Like you gotta know that you're being successful. You don't really just get there too. You have to like work your way to get there. You have to like practice and stuff... Basketball. 1sm11M3

Amrit: I think we base a lot of our success on our marks and our report cards, which I don't think we should because like a lot of people they're like "oh ya I got honour roll" or whatever and they're like more like given like the spot light. But even people that like try hard, like I guess, effort-marks, that's like a big part. But even like success that's not like related or praised because I don't think you can base everything on report cards because like I get like decent grades but I don't, I don't know. 5sm11F1

Derek: I think there's got to be personality and passion behind it as well because you could have somebody who, you know, has whatever, 99% average right and enters a program but they're, you know... their interpersonal skills and street smarts might not make them the best candidate for the program they're going into. Whereas, somebody else who you know might not have the best grades would exceed better than the first person, right, so... [p. 220 - Link] 11gr11M2

Elliott: Success is not easy, is not supposed to be easy. You can't just sit around school, enjoy it but you have to work hard for it... but what if you have the class, which you don't like. You can't just give up on it. You still have to work on it, right. 6gr10M1

Julia: ... for marks, you know, sometimes like a teacher like if you think something that you've done is like excellent, right—you think it deserves like a 100% but a teacher will like disagree and give you like say like a "B" or something, right. And but like, that's happened to me right. And I just think that like if I reach like my personal best then that's almost better than like getting an "A". Like it doesn't really like matter. It's sort of just irrelevant. Like as long as I feel that I did my best and I know that I did my best, you know like that's what counts. [p. 220 Link] 7gr10F3

Alexis: I think success in school is not only based on marks. It's partly based as well on the experience that you gain. So obviously it's not just going to be academic. It's going to be like, let's say you played on a sports team and got that experience. Then you, I don't know, did something social with friends, like you got those experiences. It just makes it a very successful, well-rounded best school education. 7gr10F4

Matt: What if you don't get that then you don't get the grades then you can't get into university so... right now the grades are success. [p. 220 - Link] 8gr11M2

Tejbir: I just kind of like going back to like satisfaction right. If you can like, if you work on something really hard and something you can see, you know what I mean, it's like, it's like that where I like I'll work hard for marks right 'cause at the end of the day you can go back and you can, and you can look and be like I worked really hard at this class, right. I improved from here to here, right. It's a noticeable result, right. Like look this is a project I did, right. Look at how like how much work I spent into it. This is how good it is, right. 2sm10M6

Adam: Well like for example, like say a mechanic might not, might not have always done well on the academic subjects like English or Social Studies but they've always done well in mechanic classes and shop classes and stuff. 5gr09M2

Eric: I mean it is something your teachers or parents and teachers see where you are at and I think that's like again, really limited to what it really looks like because I mean a grade is just, a grade is just something there to see your performance. But like there's way more to just a grade. And like people have like different learning styles and stuff so some people may not do as well in school, like in high school years, but once they get into the work force and they apply the skill that they've learned they do exceedingly well. So, I think it's really different for some people. [[p. 220 - Link](#)] 5gr09M1

Students described success being about happiness, life and long-term family success. They suggested that success is met through a personal feeling of accomplishment and pride, rather than through extrinsic factors such as money.

Troy: I'm not sure, but I know personally I find that if I do well in something that I'm struggling in I find a greater sense of success than if I do really well in something that I know I can do good in. Like if I'm struggling in a subject and I got a really good mark on it I would feel a lot better than if I was getting a really good mark in something that I know I'm good at. 6gr10M5

Parmvir: ... recently. I just finished my nightstand and I felt I did a good job. Everybody thought it was really nice. 1sm11M5

Ben: I guess you just kind of feel successful. You feel like you've done something good. I felt successful when I finished my night stand, my first one, just 'cause, I don't know, I planned it, I drew it out, built it myself. You watch just a bunch of pieces of wood and then it turns into this like thing you built. It's pretty awesome. 1sm12M2

Ann: I think success for me in school's when, when like you finally realize how to do something, or kind of like clicks in your head, and then you can do it and you can do it easily. It's not like difficult or hard and you know what you're doing. 1sm11F2

Justin: Well I like to link sports to like my life so last time I felt successful was last Wednesday. We had a rugby game and we lost the last four games because our school is a really small school. We've been practicing every day of the week for like 2, 3 hours and last Wednesday we won our first game. [[p. 203 - Link](#)] 3sm09M5

Sean: I guess you could have like family, just like having a successful family. 8gr11M1

Matt: Well I'd say probably (going to) university when you are learning more of what you want to learn. 8gr11M2

Matt: Like if you set goals for yourself in your life and then before you retire you've completed your goals. 8gr11M2

Brenda: Being happy with what you've done with yourself... And like not having any regrets on like what your career was or like what else you've done in life. 7gr10F5

Brenda: And even if it wasn't like the best there's ever been, like you did your best. Like you loved having your job and you feel like you're ready to retire because you've like accomplished everything you can in life. 7gr10F5

Alexis: Well I disagree with the money thing. I mean I think that if you feel that you've done the best for yourself and others that you can in the workplace or whatever, then I think that's more important than money. Like it doesn't matter what you've earned—like let's say for example you work in a volunteer job, like you're working at a soup kitchen or something and you feed people that couldn't feed themselves. Like that, in my opinion, is far more rewarding than having like a 6-figure salary. [p. 220 - Link] 7gr10F4

Jerry: Like you might have problems with your life or something and if you take care of that then I guess that's a success. 6gr10M3

I was interested in finding out how students perceive success in terms of marks and grades on assignments or if they had more long-term views of success. This had the potential to identify institutional or academic views of engagement that caused students to focus more on the necessary requirements of school as opposed to other intrinsic and extrinsic perceptions. I was reassured by the variety of students' responses about what success means to them and their comments about feeling successful. Knowing how students appreciate success in all its forms suggests that we must encourage students to achieve and represent their accomplishments in different ways and to celebrate these successes.

4.7.2. Results of the Survey: Aspirations for Graduation and Post Secondary School

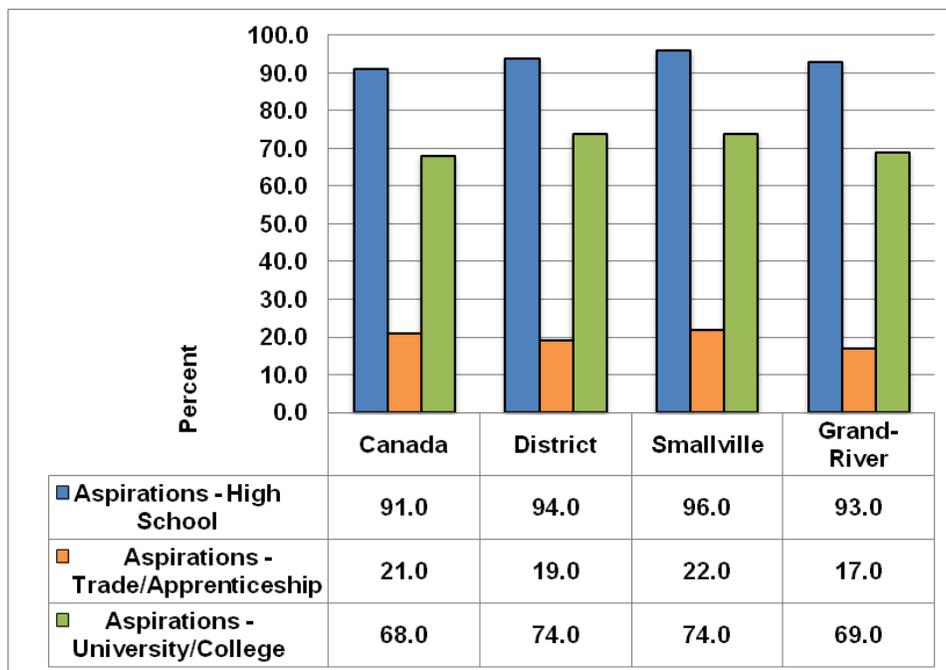
Students' aspirations to graduate and pursue post-secondary education are affected by several factors including the extent to which they are engaged in the schooling process (Willms & Flanagan, 2007). On the WDYDIST survey, students were asked about their aspirations in terms of high school completion and beyond as an outcome of schooling. They were asked whether or not they agreed with the statements in Table 30 on a 5-point Likert scale that ranged from strongly disagree to strongly agree.

Table 30. WDYDIST (2009) Survey Questions: Student Aspirations

| |
|--|
| I plan to finish high school. |
| After high school, I plan to pursue a trade or apprenticeship program. |
| After high school, I plan to go to a college or university. |

Figure 23 compares the national WDYDIST survey results to those for the Fraserview School District and the two schools that were study sites for this thesis research.

Figure 23. Percentage of Students who Plan to Graduate and Go on to Take a Trade, Apprenticeship, or Go on to College or University



Note. Data summarized from the WDYDIST survey for Fraserview School District (2009). CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Table 31 summarizes the data by gender on the percentage of students who planned to graduate, take a trade or apprenticeship, or go on to college or university. The data compare the national WDYDIST survey results to those for the Fraserview School District and the two schools that were study sites for this thesis research.

Table 31. Percentage of Fraserview School District Students' Aspirations

| | Canada | District | Smallville | Grand-River |
|-----------------------------------|--------|----------|------------|-------------|
| High School (%) | | | | |
| All students | 91 | 94 | 96 | 93 |
| Female | 94 | 96 | 97 | 95 |
| Male | 89 | 92 | 95 | 90 |
| Trades/Apprenticeships (%) | | | | |
| All students | 21 | 19 | 22 | 17 |
| Female | 16 | 14 | 16 | 9 |
| Male | 26 | 23 | 27 | 24 |
| University/College (%) | | | | |
| All students | 68 | 74 | 74 | 69 |
| Female | 77 | 82 | 85 | 78 |
| Male | 59 | 67 | 64 | 60 |

Note. Data summarized from the WDYDIST survey for Fraserview School District (2009).
CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

4.7.3. Results from the Student Interviews: Aspirations for Graduation and Post Secondary School

Students did not have strong opinions as to what specific pathways they would choose after high school. Below is a sample of the questions that I asked to frame this category. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview. Following the sample questions are examples from the interview session transcripts that are exemplary of student responses on this topic. The questions were more appropriate for senior high school students. The younger students had not yet really thought about their futures.

Interviewer: You are nearing the completion of one major part of your life. What are your thoughts for the future? What are your plans and aspirations? Do you have a plan in mind? Are you thinking of travel? Are you thinking of working for a while? Are you thinking of college or university? Are you unsure?

Simon: For me I would pretty much, by the time you hit high school you could have your whole career chosen and you, instead of spending all your time after in college, start training for your career during your high school years that way you get what you want right away. 5sm11M2

Makayla: I think by the time people get to high school they don't really know who they are, what they want, who they want to be, what crowd they want to be a part of. So I think that definitely the first couple of, and for some people their whole entire years of high school are about finding out who they are and that's why some people have such a difficult time deciding what they want for their future... I think it's a little unrealistic but it would be nice if everyone knew what they wanted to do, of course. And I'm, part of me is for that because I know that I've always known what I wanted to be since the beginning so I could definitely say that if we had specific courses for specific things then it would make life so much easier. [p. 222 - Link] 5sm11F3

Responses here were fairly limited. I did not include many excerpts here since most responses were single sentences such as I plan to go to the University of British Columbia and study Science. It seems that few students really have a clear plan as to what they want to do after high school. Many spoke in general terms about going to a university. Grade 12 students were more focused on their plans for post secondary, but many did not have a particular career aspiration. It seemed that students were following an assumed traditional pathway to college or university. Most students aspired to go on to college and university. It appears that for many students, the high school years were for exploration of potential post secondary and career pathways. Most students indicated that they expected to graduate and go on to some form of post-secondary education. A smaller percentage of students indicated plans to seek out a trade or apprenticeship. This seems to be a systemic problem in British Columbia and perhaps elsewhere in Canada.

4.8. What Are Students' Views about the Influence of School Population Size on Their Engagement?

4.8.1. Results of the Survey: School Population Size

While this study was not designed specifically to investigate school size effects on student engagement, because the samples used in the student interviews were taken from the largest and smallest secondary schools in the district being studied, the possible influence of school population size was broadly considered in reviewing the research results.

A great deal of caution must be taken with respect to interpreting the survey results and extending conclusions beyond a comparison of the two schools within the study. There were no direct questions included in the survey to explore students' views about the influence of school population size on their learning. Students at Smallville indicated more positive outcomes than their counterparts at Grand-River and compared to national norms. As discussed at the beginning of this chapter, a *t*-test of independent means (Appendix F) did not reveal any significant difference between the mean results for the school with the smaller student population and the mean results for the school with the greater student enrolment. It is interesting to note that the data (see Table 16) appears to indicate that in all categories, students at the smaller high school, Smallville with 603 students, demonstrated more positive outcomes on the survey than their counterparts at the larger high school, Grand-River with 1,450 students. However, I am reluctant to draw conclusions from this based on the survey data. Further work would need to be done to determine more definitive causal indicators.

4.8.2. Results from the Student Interviews: School Population Size

Below is a sample of the questions that I asked to frame this category. Depending on how the interviews proceeded, my line of questioning varied. The questions were not necessarily put the same way each time, but the text below is a fair representation of the flow of the interview. Following the sample questions are examples from the interview session transcripts that are exemplary of student responses on this topic. A dotted line separates student responses from different interview groups.

Interviewer: Some research suggests that the size of a school may impact your opportunities and your learning. It leads me to ask about being in a small school versus large school. What are some

advantages and what are some challenges that you might have experienced?

School Size: Diversity of Challenging Courses and Intellectual Challenge

Bruce: I talked with some of my friends from other (larger) schools and they've got kind of like, it seems like it's like almost upper echelon, like upper level of like students. So you have this class that's like really advanced, they're all in the AP courses together. So they all seem to kinda, I mean they all kinda challenge each other that way. And I mean having such a small school, you can't really have that because it's, I mean sure we do have some smart kids but it's not, there's not a whole level of smart kids I don't think. Like there's not a, you know, a whole class that kind of works well. 8sm12M3

School Size: Adjusting to Larger Communities

Brandi: Although there is a bit of a disadvantage to a small school too— just because like you know you go to university and you go from this small school to like this big thing where there's so many people from so many different areas and it becomes something I guess that we're not used to and lots of people get used to that in high school if they're up at like Northlands or one of the bigger schools and I don't think we really get that chance to. But on the other hand we can also look back on high school and be like "that was a really good experience." 8sm12F3

School Size: Limitations Due to the Lack of Choice, Range of Available Courses and Teachers

MacKenzie: It's back to when I said it was more open but like more open that we have right now but, so people don't feel like "oh I have to transfer to another school to get what I want" because I know people who are in Grade 10 and they said they wanted to take this course but it wasn't available here so they had to go to another school which they don't want because they want to stay here but they needed that course in order to get into the university they wanted. So more activities, more I guess more variety of subjects for people to take so they don't feel like "oh they're limiting me from being, or doing something that they want to do." 7sm12F6

Ashley: ... I was trying to take a writing class this year through school and there were like 13 people or something and it got cancelled. Like more opportunities for that 'cause I mean I've had, I took French 12 this year and there were like a lot fewer people but we still got to have course. 7sm12F1

Dylan: Balance between having a small school where you're able to be socially active yet having those courses that you need and want. A balance between like school, studying, learning what you need to learn but also getting insight into what you're learning not just "this is the facts. That's it." 7sm12M1

Jackie: Small schools are not giving us a lot of choices especially with my interests. I like PE. I have one choice. One choice and it's PE, general PE. It's not, it's not an interesting thing to do and it's, like there's a lot of things I guess like that. Like you like Math, there's only one Math course—well there's Calculus and Math. And like a lot of, a lot of things like that. Like you're interested in Biology. There's one Biology class. There's one type of Biology you can take and that's it. 4sm11F5

Jessica: ... I felt very limited (at Smallville) because compared to my old school we had a lot of more options and there was like plenty of alternatives. Like we offered Chinese, Japanese and like a whole bunch of languages. And when I came here I just, I don't know, my interests began to fade a little bit because, ya... [p. 224 - Link] 4sm11F1

Jennifer: I think some of like the elective courses that they were talking about offering at Smallville they had to cancel because not enough people are signing up for them so you weren't able to get into those courses, which kind of sucks. Because they were talking like doing a couple of dance course and stuff as I understood but not enough people signed up for it and stuff so... 8sm12F4

Makayla: I was thinking that maybe like something that would be more realistic going back to how some people are decided and some people are undecided that maybe there should be something where it's just one single basic program where like if you're undecided you can take the basic courses with basic curriculum and basic learning and then something that will give you the essentials for maybe your future. And for people who are more specific they get to choose more specific courses because I know like certain schools, like in I can't—I think it's [very large school out of district] they have so many courses there that are more specific to what people want to do. They have jewellery courses. Like we have those courses too but I think because we have such a small school it's so limited and I think that really closes the deal for some people and makes them feel less subjected to choosing what they want to do in their future and giving them less of an opportunity to decide for themselves what they want. 5sm11F3

School Size: Relationships with Students

Natalie: Well my experience has been really positive but I also think that like the schools that I come from and that, you know, Smallville—we're so small. It's like a community. Like I don't think I would know half the people I know if like I went to like 1,000 just in one grade like my sister did 'cause she went to Northlands before the changes were made. So I know a lot more people in my grade and I know people in a lot of other grades and I don't think you get that anywhere else. 9sm12F2

Natalie: We take care for each other. Like it doesn't matter what grade you're in, you know, we all take care of our own. So we don't really have a lot of hostility toward each other. 9sm12F2

Will: I guess this is probably the school that I've had the most friendships grow in and the amount of time and that you spend in a school and you meet people and then the amount of time you spend outside of school. It's, especially like what was said earlier—it's a smaller school, more a community. You know lots of people and the friends that you have, you're a lot closer with. Whereas, at a bigger school, you might not be as close with more friends. [p. 224 - Link] 9sm12M2

Stephanie: Since we're a small school there hasn't been much room for cliques. Like there are but everyone kind of co-mingles. Like every high school has like their groups but everyone is kind of connected. At least there's one person that's friends with another person in another group and it's kinda nice like that. 9sm12F1

Will: It's like almost a family. 9sm12M2

Jennifer: It gets rid of like I think also like the clique problems and stuff that you hear about at other schools. It's like "oh no, we don't hang out with those people." You know, it's like everybody is just friendly with everybody and there's not a lot like a lot of I guess discrimination stuff compared to the bigger schools that you hear about. 8sm12F4

Darius: I like a small school 'cause you get to know everyone so well compared to like a large school where like you've seen the kid like three times the whole year... 8sm12M4

Brandi: I know everybody's name. 8sm12F3

Zane: Ya it comes back to classes too. You know everyone so you're not afraid to put your hand up again. 8sm12M1

Brandi: Like you look at our, you look at our grad class and we're like, I think we're pretty close. Like everybody's knows everybody. Like when we went to like the beach everybody like was together in one group. It wasn't like split up. It wasn't like, it was like we were just one big group and everybody got along. 8sm12F3

Carly: Well I think there's, overall it's a good relationship between the students because there's no huge fights or anything but there's definitely like the little cliques who don't get along with each other and will cause issues. But overall I think it's good. 7sm12F2

School Size: Relationships with Teachers

Sarah: ... They understand you right. I mean it's a small school so each teacher pretty much knows each student and then you get along with the teacher right. And it depends if you have, if you're having a bad day, you can just look at you[rself] and say, "do you want to cool down a bit and then we'll work on this afterwards?" Or just, just let them cut us some slack. It's like one-on-one. You know your teacher really well. 9sm12F3

Melody: There's a better teacher-student relationship too because of the small school. 8sm12F1

Darius: Every teacher knows like every Grade 12 right. It's pretty awesome. 8sm12M4

Melody: Like I'm not afraid just to go ask a teacher anything. 8sm12F1

Deanna: I think it's like better at small schools. Like you're more connected and 'cause in like October and September I went to like a large school and like none of the teachers really knew your name or knew who you were and now like everybody knows who you are and, you know, you get to know people actually and know your teachers ...I think it makes you want to go to class more and pay attention and like listen to your teachers 'cause you start to respect them. 6sm09F2

Lacey: Also with the smaller school the teachers know you. They know like what you're having difficulties with and they can help you on that. 6sm09F1

School Size: Staff Relationships

Brandi: And it's not just like students and teachers or students and students, it's the teachers too, and teachers too, like the way the teachers get along. You can tell they all like genuinely like each other. They don't just work with each other. They actually like, enjoy each others' company and they'll like, they'll tease each other and they'll, they'll, some of our teachers go running together. And it's, it's nice because if they're comfortable with each other then it creates a, once again a comfortable atmosphere for us. [p. 224 - Link] 8sm12F3

School Size: Transferring between Schools

Shannon: Like personally I come from like in [big city] I attended the school [large school] for a year. It's a pretty huge school. Ya they have these groups of people and... when I came to Smallville, Smallville was just amazing. Like everyone was so nice or welcoming it's one of the reasons why I like it. So going to a bigger school would be like a big no for me 'cause I like Smallville for (this). 7sm12F5

Jennifer: ...But like I've talked to people that have transferred from Smallville and gone to larger schools in the area and like most of my friends that did that, they came back to Smallville 'cause they just didn't like it 'cause they didn't know anybody and it was too hard to get to know the people because it was so big. They just, they didn't feel the closeness that Smallville has. 8sm12F4

Brandi: And like I talk to people from other schools, bigger schools, and you know they'll be like "oh ya" and they'll be talking about the problems they're having and I don't really see the same problems at our school. Like I don't see people, like there's not much exclusion here. And back to like the classes, like you don't have to take every class to relearn who everybody is because it's pretty much the same group. 8sm12F3

School Size: Social Sense of Community

Allison: I think our grad class is pretty crazy this year. We did so many fun things, like so many things. Like grad council and everything was like such a success. 12gr12F1

Andrew: I think our grad class compared with what you're going to see next year, like our grad class is so tight knit. Like we don't have many groups per se. Like you'd have, you say you'd have like cliques and stuff, cliques and that but I think our group is as tight as you could be. And next year I'm like, "oh I don't know." I've seen their grade. Their grade is going to be a little bit out of control. [p. 224 - Link] 12gr12M2

Kelli: It's just like some of the people you meet here you never see again if they leave or during the summer or anything and then you just interact with them during school. That's pretty much the only time you get to see them. 6sm09F3

4.9. Summary

I think it definitely would be (good) to have specialized schools, 'cause if you're 14 years old and you already know what you want to go into or specialize in, then why bother going to a school where you're going to be forced to learn stuff that you just don't care about? ...You're better-off going to a school where that's what you're going to be doing for the next 4 years and once you graduate you already have the skills that you know, that you would go to college for and you already have that and you can basically start your life right there and (are) done, rather than waiting another 4 years in college.
(Milly, Grade 12)

This chapter has been organized to present the results relevant to the research questions examined in this thesis. This chapter provided the results of my study, which examined from students' perspectives what constitutes engagement in school. The research utilized data from a national survey and was followed by semi-structured group interviews with students from two high schools in an urban British Columbia school district. The chapter presents the results of student responses to the national WDYDIST survey, which was administered to 5,217 Grades 8 to 12 secondary students from all seven high schools in the Fraserview School District. The surveys were administered by school staff and coordinated through the district office. The national sample size was very high with 32,322 students participating. For the purposes of this thesis research the survey data specific to two high schools, Smallville and Grand-River was reviewed in detail and the school results were compared to the national and district-wide results. The two schools were selected for the research in order to provide some possible comparison between a large and smaller enrolment high school although school size per se was not a focus of this study.

In addition to the survey results, data was obtained from 21 semi-structured interviews conducted with 141 students in small groups ranging in size from three to eight students at Smallville and Grand-River secondary schools. A total of 68 students were interviewed at Smallville and 73 students at Grand-River. The student selection process is described in Chapter 3. The interview participants included a mix of students with diverse social and academic backgrounds. There was a balance of boys (72) and girls (69) and participants were of varying ethnicities.

Next, Chapter 5 presents a discussion of the research findings. As with the previous chapter, I have organized the chapter sections according to the research sub-questions. Within the research sub-question framework, I then organized the flow of the report by presenting the findings for each dimension of the survey of high school students followed by a discussion of the emerging themes provided through the interview data. The chapter includes a synthesizing

framework that draws together many of the elements, which appear to the students to contribute to the formation of engagement. Chapter 5 concludes with a general discussion of the overall findings and implications of the study that transcend the data from the student surveys and the interviews. This section considers learning experiences, teaching practices and the school organization. I end the chapter with several recommendations, which are supported by and emanate from this study. These recommendations are directed at student learning experiences, teacher practices, support and development and the organizational requirements of school. Sections on weaknesses of this study and opportunities for further research complete the chapter.

5. Discussion

When you show up in Grade 8 you do take, you know, 4 to 6 electives as they're divided up along the year and you do get into what you like quick, and you find that out, but it's, it's still like... it's still really you wait to do the things you really want to for you know Grade 8 and Grade 9 and then into Grade 10 you're still limited to Science as opposed to Physics and you're still limited to you know Drama as opposed to like everything you could do there and you can't join the band you want, you can't do like the specialized trades things and it's not that that's a complaint, you need to get prepared for that kind of stuff, but that specialization is really one of the few things that makes school fun. I mean if you're going into what something you love to do then that's the reason you're here. I mean I look forward to going to Music and Art classes 'cause you know I like that, but you're never looking forward to going to like English, you know. (Charlie, Grade 11)

5.1. Introduction

This chapter provides a discussion of the findings, summary and conclusions from the study. The chapter is organized according to sub-questions derived from my research question, which examined from students' perspectives what constitutes engagement in school. To gather the students' perceptions of their school experiences, the study employed the national Canadian WDYDIST survey (Willms et al., 2009) and conducted semi-structured group interviews with students from two high schools in an urban British Columbia school district.

The specific research question was explored through a series of sub-questions that were designed to examine the conditions under which students socially, academically and intellectually engage in school. The study investigated students' perceptions of whether they were instructionally challenged in their learning, and when and how they felt to be learning best. The research further investigated students' sense of feeling connected to school and others do not. The interview phase of the research also asked about students' understandings of the purposes, requirements and importance of school, their perceptions of success as an outcome of schooling, and their aspirations to graduate and pursue post secondary education. Although school size effects were not a focus of this study, students were also asked about their perceptions of the effect of school population size on their experiences.

Unless specifically mentioned, the differences in the data sets included in Chapter 4 were not statistically significant. Statistical *t*-tests were conducted between the two schools in the study in cases where the impression of a significant difference was noted. However, even though in many situations, there was an apparent difference, *t*-test calculations did not reveal any level of statistical significance. Statistical tests were not conducted for district to national level comparisons, between grade-level data, for gender differences or for any other schools in Frasersview School District not participating in this study (see Appendix F).

As described at the opening of Chapter 4, the odds ratio statistic is a measure of effect size and describes the strength of a relationship between two values. It is simply the ratio of the odds for two different sets of circumstances. Willms (2003) described the odds ratio as the likelihood of an event occurring divided by the likelihood of the event not occurring. The national WDYDIST survey utilized the odds ratio statistic as it was used in the PISA study (Willms, 2003) to determine the strength of the relationship between component measures of student engagement—sense of belonging, attendance and intellectual engagement and five measures of classroom/school climate: effective learning time, teacher-student relations, classroom discipline, expectations for success and intellectual challenge. The national WDYDIST study found that while family background did not play a major role in student engagement among schools, it did account for student engagement within schools. Relationships were found to be statistically significant with over half of the variability among schools in measures of student engagement being attributable to the classroom and school climate factors (Willms et al., 2009, p. 25).

5.2. What Are Students' Views of When They Learn Best?

5.2.1. *Findings from the Student Interviews: When They Learn Best*

I asked students to indicate when they felt that they learned best and when they were more likely to be intellectually engaged. The specifics of their responses, while diverse, were generally consistent with various concepts about student engagement in school as described in the literature review in Chapter 2. These concepts include behavioural, emotional and procedural elements such as participation in academic work, attendance, active participation in class, time spent on schoolwork, extra-curricular activities, student-teacher interactions, interest in school, care in completing work, motivation to succeed, attitudes towards school, sense of belonging and membership in school, and student's perception of a 'real world' connections to school as well as attention to school rules and continued commitment to learning (Earl & Lee, 1998, pp. 16 and 30; Finn & Voelkl, 1993, p. 249; Nystrand & Gamoran, 1989). The students expressed the preference

for purposeful field experiences and, in general for learning experiences that were relevant, authentic and meaningful. That is, students preferred learning experiences that were seen as being connected with the world of work and post secondary education or as incorporating topics that were interactive and challenging. The student participants desired choice and options in their learning. They liked hands on experiences and projects that permitted them to be active, to exercise creativity, and to use multi-media approaches and materials. Some also expressed interests in the use of games, modeling, role-playing, and storytelling. Through their interview comments, students expressed greater engagement whenever a teacher showed interest and passion for a subject and when there was fun and humour in classes. Students indicated that they like some degree of intellectual challenge, structure and differentiated teaching strategies for different learners. Some students liked being self-directed and being able to teach what they were learning to others. As an old saying, attributed to the French essayist, Joseph Joubert (1754-1824) goes, "To teach is to learn twice" (Joubert, n.d., "Quotes," bullet 1).

Students indicated that they rarely went on field trips, especially after entering high school and yet, they considered those excursions to have been valuable learning experiences. For example, Anthony ([p. 97 - Link](#)) described his experiences on a field trip to the wet lab at the Vancouver Aquarium. This experience stayed with him as a worthwhile learning experience that was 'hands on' and engaging. Eric ([p. 98 - Link](#)) described one of his best learning experiences as being when he went on a work experience with his parents. These examples suggest the value of real world experiences (outside school and classroom experiences) for students. Throughout the student interviews, participants regularly offered examples of teachers who had provided options and choices that had allowed them to demonstrate their learning in creative ways. Jonah and Tejbir, Grade 10 students at Smallville, described two such examples of these positive learning experiences ([p. 95 - Link](#) and [p. 100 - Link](#), respectively). Students also gave examples showing evident preferences for experiences where they had the freedom to be creative and to define their learning experience. Leo ([p. 100 - Link](#)) described an example from his photography class and Shannon ([p. 101 - Link](#)) described a class role-play. She found the experience to be a good way of understanding the concepts. Students offered many comments in regard to active, hands-on, applied learning. Justin ([p. 102 - Link](#)) summed this up well:

In Science, (we) got to do labs where I remembered. So we did a lab last year in Science and I never forgot it. It was dissecting the sheep's eye. It was kind of gross so I never forgot how to do it. If I ever have to, if I ever take Biology again I'll know how to do it. Kind of gross... 'cause I would have to read it and it wouldn't really stick in my head as good as actually physically doing it. You can't like read like how to dribble a soccer ball. But when you actually do it, you remember. You can't really read how to learn, how to ride a bike.

3sm09M5

Students also appreciated classes in which teachers adapted their strategies for different learners. Two Grade 10 students, Julia ([p. 106 - Link](#)) and Pamela ([p. 106 - Link](#)) from Grand-River Secondary School described an example of this differentiated approach.

5.3. Why Do Some Students Feel Connected to School and Others Do Not?

Sense of belonging is viewed as a key component of student engagement and is shaped by students' attachment, feelings of being accepted and being valued by their peers at school (Willms, 2003). Finn and Voelkl (1993, p. 249) referred to identification or connectedness with school as an emotional element of student engagement. This connectedness is an internalized sense of belonging in school. Canadian 15-year-old students ranked 15th out of 41 countries with respect to having a sense of belonging in high school (Willms, 2003). As described in Chapter 2, research studies have shown that schools where students report having a greater sense of belonging also have more positive student outcomes (Barclay & Doll, 2001; Cotton, 1996; Lee et al., 1993; Newmann & Wehlage, 1997; Rumberger & Thomas, 2000).

5.3.1. Findings from the Survey: Sense of Belonging

In the study reported here, at the District level, students at the Grade 8 level indicated that they had a greater sense of belonging in their school programs. This indication declined slightly towards Grade 12. Slightly more than three-quarters of students in the Fraserview School District revealed that they had a high sense of belonging. This compared to only about two-thirds of students reporting a positive sense of belonging in the national level survey results. Results for my study indicated that a much higher percentage of students at the smaller high school indicated having a strong sense of belonging in school with more than 80% of female students reporting a feeling of being accepted and valued by their peers and others at the school. Almost 80% of boys also reported a high sense of belonging. At the larger high school, about three-quarters of boys and girls surveyed indicated having a strong sense of belonging in the school. As was mentioned earlier, statistical tests of significance were not conducted for between-grade-level data. At about Grade 10, students attending Smallville showed a marked increase in their positive sense of belonging. In this case, students at the larger secondary school also had a higher sense of belonging during Grade 10 as compared to the district results. Contrary to the district and individual school results, the national grade-to-grade comparison indicated a slightly higher sense of belonging at Grade 8 and Grade 12 with a small dip in the middle high school years (Willms et

al., 2009, p. 18). The variability even between the two schools suggests that other factors related to school culture and climate may have been a factor in these results.

Willms (2003) constructed a survey similar to the WDYDIST for the OECD PISA survey. He reported that on an international level, many students did not have a strong sense of belonging in school. The national WDYDIST (Willms et al, 2009, p. 20) survey used in this study indicated that students with higher socio-economic backgrounds had a greater sense of belonging. Consistent with the OECD PISA study (Willms, 2003), only 58% of students from very low socio-economic backgrounds had a positive sense of belonging as compared to 78% of students with very high SES backgrounds. To a certain extent, family structure influences a student's sense of belonging and connectedness to school. Students of 2-parent families indicated a slightly higher positive sense of belonging in school compared to those from single-parent families. According to the national WDYDIST report, students showed a 5% higher indication of having a positive sense of belonging in school for 2-parent families over single-parent families (p. 21). However, the variability among levels of students' overall sense of belonging at a school level was evidently less reliable at the school level versus individual level on the national WDYDIST survey (p. 22).

Willms (2003) found that about 80% of Canadian 15-year-olds assessed through the PISA survey reported a positive sense of belonging (p. 53). Across the participating OECD countries on the survey there was great variability among schools with regard to students' sense of belonging. Internationally, about 25% of students were categorized as having a low sense of belonging and about 20% of students indicated having a very low level of participation in schools. Furthermore, on average, while there was little difference between male and female students with respect to having a low sense of belonging, about 7% of males were more likely to exhibit low participation than females. Willms reported considerable variability among countries for students having both a low sense of belonging and low participation in school. Willms referred to the compounding factors or double jeopardy for students from low SES families who attend schools that have a high proportion of students with low SES backgrounds (p. 48). In the 2003 PISA report, Willms concluded that student engagement has more to do with the culture of the school including the strong role that teachers play. Students were more likely to be engaged at school if they attended schools that have a high average socio-economic status, a strong disciplinary climate, good student-teacher relations and high expectations for student success. The OECD results suggested that engagement is related to factors associated with classroom practice, yet unrelated to the quality of the school infrastructure and level of resources available (Willms, 2003). An interesting extension of this thesis would be to access SES data available through

sources, such as Statistics Canada, and compare these data with the school-based indicators of engagement.

5.3.2. *Under What Conditions Are Students Engaged in School?*

I reviewed the three dimensions of engagement in Chapter 2 as proposed by several authors (Fredricks et al., 2004, McMahon & Portelli, 2004, Vibert & Shields, 2003; Willms et al., 2009) which student' school engagement is considered to have three dimensions: social, academic, and intellectual (see Figure 2 for a visual form of this concept). In organizing this discussion, I return to this concept since the Canadian WDYDIST survey (Willms et al., 2009) and student group interviews were designed to explore the three dimensions and to assess their validity in students' understanding of/or approach to school.

Based on the results of the WDYDIST survey and student interviews, a further goal of the study was to assess whether or not the students' responses could be interpreted to indicate their engagement with school as a construct of engagement as defined in current research. Stated as a research question, this phase of the study asked: What do the student descriptions of their experiences indicate about their engagement with school and school-based learning experiences? This section refers to the findings of the WDYDIST survey items and the relevant student interviews that relate to the construct of students' engagement in school.

5.3.3. *Students' Social Engagement with School*

Findings from the Survey: Social Engagement

In this study, I refer to "School Life" as participation in school activities that are not directly associated with the prescribed curriculum and classroom. These extra-curricular activities form a part of the socialization and enculturation processes of schooling (Holmes, 1998, p. 32). Overall, based on student responses to the WDYDIST survey items that assess attributes of social engagement, the Fraserview School District results indicated a large drop-off in student participation in sponsored clubs or committees in Grades 9 through 11. However, Grade 11 and 12 students at Smallville have reported a rate of participation greater than the district average while Grand-River students' responses yielded a result that was similar to the overall school district results. Boys appeared to be much more actively engaged in sports activities than girls. However, the girls indicated higher levels of participation in sponsored extra-curricular school groups, clubs or committees. Smallville students indicated a higher rate of participation in school group activities when compared with the results for Grand-River.

Based on the WDYDIST survey results, there appeared to be a steady drop-off in participation in sports as students progressed through the grades. Apart from Grade 12, students attending Smallville, the smaller of the two secondary schools in the study, seemed to participate more in both sports and clubs/committees than the students at Grand-River Secondary School. This may be an indication of the level of school spirit at the smaller school even though there are fewer teachers available at that school to take on voluntary extra-curricular coaching or sponsorship of clubs/committees.

Findings from the Student Interviews: Social Engagement

Dunleavy and Milton (2009) defined social engagement as referring to “meaningful participation in the life of school” (p. 8). It is claimed to be a “combination of students’ sense of belonging at school, their acceptance of the goals of schooling, feelings of being connected to and accepted by peers, and experiences of relationships with adults.” In the interview phase of this study, students reported being socially engaged in school through their involvement in sports, clubs, friendships and enjoying the social aspects of schooling. For example, Justin (p. 184 - [Link](#)) indicated that sports were his life. Sports were where he felt most successful. On the other hand, Olivia (p. 116 - [Link](#)) viewed school clubs as an important aspect of her schooling, while Jim (p. 117 - [Link](#)) viewed school as an important social gathering place for developing friendships, entertainment and having fun. Pamela (p. 117 - [Link](#)) offered a view that getting to know people was an essential aspect of schooling.

From the perspective of many students, social engagement was a very real and very important part of their lives. School was viewed as an essential place for socializing, making friends, having fun, and enjoying aspects of school life outside of traditional academic pursuits. School was in some way seen as a ‘home away from home’ that enables the formation of strong bonds that can last a lifetime. One of the concerns about the growing interest among school systems for on-line learning is with respect to the potential loss or diminishment of the socialization and enculturation aspects of schooling. Perhaps a better alternative would be to have a blended approach combining both on-line and face-to-face learning opportunities, as George (p. 173 - [Link](#)) preferred.

5.3.4. *Students' Academic Engagement with School*

Academic or Institutional Engagement (Willms et al., 2009) refers to participation in the formal requirements of schooling and expectations for academic success such as credits attained, post secondary plans, having a responsibility for learning, homework completion, getting

class work done, attendance, tardiness, participation in class and impressions concerning the value of education.

Findings from the Student Interviews: Academic Engagement

In the group interview phase of this study some students reported simply attending school as a means to meet institutional requirements, gain scholarships, and move on to the next chapters in their lives. Their statements indicate that they just come to school to “do school.” For students who hold this view, school is at best a conduit or prerequisite to further learning or work opportunity or a societal expectation. At worst, it is just a “hoop to jump through” on the pathway through adolescence. Surinder did not see school as being a social gathering place and was more oriented towards an academic perspective of schooling:

I believe you should spend every day learning little things at a time as well as school. Personally, I don't believe the school building is a social place. I believe that after school or during lunch or during the breaks or when you're given an opportunity but I don't believe it should be social. I don't. Maybe it's 'cause I don't have a lot of people to talk to, but I just think it's, we should spend our time here learning and then after school we'll have, we'll have done our homework during class and then after school that way in class you don't have to listen to people talking all the time. Like they could be doing work and avoiding the homework they have to do later. (2gr08F4)

Darius (p. 121 - [Link](#)) was a Grade 12 student who chose what he perceived to be an easier route through the school requirements. He equated effort with interest in a subject. He did not seem interested in his schooling and did not extend himself through the challenges that may be offered in homework assignments. Kai, on the other hand, (p. 120 - [Link](#)) indicated that he requires good grades for entry to post secondary education in order to achieve his real goal, which is to play basketball. Ian (p. 120 - [Link](#)) said that he found school to be painful and that he was just taking the required courses without much enjoyment. In fact, he also commented at the lack of external motivation from adults in his life and regretted not having more (academic) pressure from teachers or his parents. From another perspective, Eric (p. 122 - [Link](#)) found that he learns more outside of school. However, when he is in school, he conforms to the expectations of society for schooling as a pathway on to post secondary education. Natalie (p. 122 - [Link](#)) noted that there is a lot of pressure on students to achieve in order to earn scholarships and go on to post-secondary education. Unfortunately, like Darius above, some students do not find much interest in the subjects that they must take. For example, Jackie (p. 120 - [Link](#)) viewed English as a necessary requirement (which, it is) and also feels that Math and Science offer little in the way of her interests. She felt that students need to have some sort of driving force such as achieving an 'A' or perhaps a level of personal interest in the subject matter.

5.3.5. Students' Intellectual Engagement with School

Intellectual Engagement refers to the deep “emotional and cognitive investment in learning, using higher-order thinking skills (such as analysis and evaluation) to increase understanding, solve complex problems or construct new knowledge (Willms et al., 2009, p. 7). It is knowledge building, problem solving, conceptual thinking, and learning with confidence. Friesen (2009) described intellectual engagement as:

An absorbing creatively energizing focus requiring contemplation, interpretation, understanding, meaning-making and critique. (It is) learning that invites students to engage intellectually (and) awaken the human spirit's desire to know ... (resulting) in a deep, personal commitment on the part of learners to explore and investigate ideas, issues, problems or questions for a sustained period of time. (p. 4)

Findings from the Survey: Intellectual Engagement

The WDYDIST survey contains a number of items that are intended to assess students' intellectual engagement (see Appendix B). In this study the survey of students attending Fraserview School District indicated a low level of intellectual engagement, a finding similar to the national WDYDIST survey results (Willms et al., 2009), with only about half of the high school students participating in the survey in this study being found to be intellectually engaged in their learning. At Smallville, the smaller high school in this study, the level of student engagement was slightly higher than at Grand-River, the larger secondary school. While students attending the smaller high school generally showed a greater level of intellectual engagement than those at the larger secondary school, Grade 12 students at the larger school indicated a marginally higher level of intellectual engagement than their counter parts at the smaller school. However, the survey responses of students at the smaller high school indicated greater levels of intellectual engagement at the lower grades compared to the students attending the larger secondary school. Female students at Smallville were more intellectually engaged than the national average for female students. Their survey responses also indicated greater intellectual engagement than female students at Grand-River Secondary. Students responses at Grand-River indicated somewhat less intellectual engagement than reported on the national WDYDIST survey of Canadian students. Further, male students at Grand-River appeared to be less intellectually engaged than the national norms.

These results are consistent with the Canadian national WDYDIST survey trends, which indicate a higher level of intellectual engagement at the lower grades with a decline in Grades 9 through 10 before climbing again in Grade 12. Nationally, female students tend to be more intellectually engaged than males. In terms of the results for the schools involved in this study,

females at the smaller high school were more intellectually engaged than the national average and their survey results indicated notably higher intellectual engagement than females at the larger high school. The survey response patterns for male students at the larger Grand-River secondary school indicated less intellectual engagement than the national norm for males. I note that in all cases, when t tests were conducted, there was no statistical difference between the school results and those for the national WDYDIST survey, for either males or females or between the two schools.

Findings from the Student Interviews: Intellectual Engagement

My study found that students' comments indicated greater engagement in school when classes were personalized, interesting, involving, and fun—when there was choice and the learning was focused in an area of passion for the student and teacher. The students' comments in this study indicate that they like to learn. They feel that school is important. Unfortunately, they also report that a portion of the schooling they experience involves sitting in classrooms doing assignments, completing homework and taking tests.

Eric and Sally ([p. 129 - Link](#)) were Grade 9 students attending Grand-River and Smallville Secondary Schools respectively. They both claimed to like learning. They clearly enjoyed school—even in subjects where they were less successful. Theo ([p. 127 - Link](#)) spoke about enjoying learning and doing well in a course because it was an area of his interest and he enjoyed the interactive nature of the class. As with many students, Jim ([p. 127 - Link](#)) indicated a wish for more elective choices and different approaches to teaching and learning. He also made an interesting comment about learning through a vocational pathway and his frustration in not having choices later in his grade-level experiences. Similarly, Heather ([p. 128 - Link](#)) spoke about her passion for the arts and would like to see more choice in the area of languages. Students' comments reveal that their experience of school from the perspective of its capacity to engage them intellectually is mixed. Students describe learning experiences that they find interesting and engaging, but they also describe other situations that are clearly not likely to excite their interests or produce personal commitments to learning.

5.3.6. School and Classroom Climate

The national WDYDIST survey report determined through the odds ratio statistic (pp. 44 and 179) the strength of the relationship between measures of student engagement: sense of belonging, attendance and intellectual engagement and five measures of classroom/school climate: effective learning time, teacher-student relations, classroom discipline, expectations for success and intellectual challenge. At the national level, relationships were found to be

statistically significant with over half of the variability among schools in measures of student engagement being attributable to the results for indicators of classroom and school climate. While family background did not appear to play a major role in student engagement among schools, it did appear to account for student engagement within schools (Willms et al., 2009, p. 25).

Findings from the Survey: School and Classroom Climate

The national WDYDIST survey results found that students were more likely to be engaged socially and intellectually in school when the survey results were positive for survey items indicative of school and classroom climate (see Appendix B). A key factor was the need for teachers to hold and convey high expectations for student success. Attendance was more likely to be positive if there was a high expectation of success and, at the same time, when students were appropriately challenged. Furthermore, students were more likely to be intellectually engaged when there was effective use of classroom learning time, when there was a positive disciplinary climate and when positive teacher/student relations were evident. Findings for the District and the local results appear to be consistent with the results of the national WDYDIST report (Willms et al., 2009). In reviewing these data, while the school district results showed a pattern similar to the national norms, the student responses to survey items indicative of school and classroom climate for the smaller high school in this study were consistently more positive than the district results and those from the larger secondary school. However, a *t*-test did not reveal the differences between the two schools to be of statistical significance.

Findings from the Survey: Teacher-Student Relations

The survey results for Fraserview School District indicated that students felt that there was a positive atmosphere in the class when teachers were responsive and accommodating of student needs while encouraging independence. While not statistically significant, the Fraserview School District results indicate slightly less positive student impressions of teacher-student relations as compared to the Canadian norm. Students at Smallville High School gave the most positive responses to survey items concerning teacher-student relations. The survey results for female and male students at the smaller school indicated more positive perceptions of teacher-student relations when compared to the responses of their counterparts at the larger high school. Nationally and locally, students in Grades 8 and 10 indicated higher levels of positive responses to survey items examining relationships with their teachers.

Findings from the Survey: Disciplinary Climate

The items on the WDYDIST survey that assessed student perceptions of disciplinary climate were based on a construct that proposed that a positive disciplinary climate results from teachers having clear rules and expectations for behaviour. That is, when teachers have high expectations that rules be followed and their expectations are conveyed to students so that they are aware of and understand them. In this study, the survey responses indicated that students attending Fraserview School District had a slightly more positive perception of the classroom disciplinary climate than the Canadian norm. On average, at the district level, students indicated that they had more positive views of the classroom disciplinary climate in Grade 8 as compared with the remaining high school grades. Also consistent with the national results, female students tended to have a more positive response toward having clear classroom disciplinary expectations than did male students.

At the smaller high school in this study, students more commonly indicated having experienced a positive classroom disciplinary climate. However, this result declined noticeably at Grade 12. The students at the larger high school did not hold the same generally positive view of having experienced a positive disciplinary climate. At the larger high school there was also greater variability from grade-to-grade in responses to students about their experiences of a positive classroom climate. The degree of variability noted between the two secondary schools with respect to student responses to the disciplinary environment at the classroom level supports research studies which suggest that climate is variable and within schools and tends to be more classroom dependent and largely teacher driven (Willms et al., 2009).

Findings from the Survey: Teacher Expectations for Student Success

On the WDYDIST survey, Fraserview School District students reported experiencing a greater emphasis by teachers on academic skills. They also reported having experienced higher teacher expectations for all students to succeed than the Canadian norm. More Grade 8 students reported having experienced higher expectations than did students in other grades. There appeared to be greater variability between grades at Grand-River High School compared to Smallville. While students at the smaller secondary school commonly reported experiencing relatively high expectations through Grade 11, the results of the survey for students in Grade 12 indicated a drop-off in student perceptions of teacher expectations nationally and locally. Students at Smallville reported a much higher level of teacher expectations for academic success as compared to students at the larger Grand-River High School.

The survey of students attending school in Fraserview School District indicated that female students rated teachers' expectations for student success higher than did male students. Female students at Smallville reported slightly higher ratings than those by students at Grand-River and Fraserview School District as a whole. The difference in ratings about teacher expectations for student success was greater between male and female students at Grand-River than for the Fraserview School District and national averages. Male students at the larger high school gave lower ratings in regard to a climate of high expectations than the average rating reported by males at the smaller secondary school. Both female and male students at Smallville High School gave higher ratings to survey items in regard to teachers' expectations for academic success –than those assigned by students at Grand-River.

Findings from the Survey: Effective Use of Classroom Learning Time

On the WDYDIST survey, students were asked to report on items indicating that classes were taught well, the available classroom time was used effectively, and assessment and evaluations reflected the course objectives. Consistent with the national WDYDIST survey results, the research survey of students attending Fraserview School District indicated a slight decline in students' perceptions of effective use of classroom learning time from Grade 8 through Grade 12. On average, students attending Fraserview School District rated effective use of classroom learning time at 6.5 on a scale of 0 to 10. The Canadian norm for high school students was 6.5. At all grades, students at Smallville generally indicated more efficient use of classroom learning time did their counterparts at the larger Grand-River Secondary School. Female students gave survey items regarding the use of classroom learning time slightly higher ratings than did male students.

Students at Smallville felt that teachers made more effective use of classroom learning time as compared to students at Grand-River, which showed results similar to those for the Fraserview School District and the national average for this indicator. Male students at Smallville appeared to feel that teachers made more effective use of learning time than did boys at Grand-River. Likewise, female students at Smallville believed that their teachers made better use of classroom learning time than their counterparts at other schools in the Fraserview School District or as compared to the national average for this factor.

Findings from the Student Interviews: School and Classroom Climate

When interviewed about school and classroom climate factors, the students in this study spoke strongly about the importance of positive teacher-student relationships and with regard to teachers having high expectations and discipline with well-established and clear school and/or

class rules. Some students prefer structure in their classes. Structure includes accessing prior knowledge, using advance organizers, teaching the content in small units aligned with the objectives, being clear on the key concepts, following up with assessment tasks immediately after the content is taught, and building the base for higher order thinking. These factors are also assigned importance in the effective schools literature (Creemers & Scheerens, 1994, p. 134; Hattie, 2002, p. 2, 2009; Lezotte, 1991; Marzano et al., 2001; Mortimer et al., 1988; Rowe, 2003; Sammons, Hillman & Mortimore, 1995; Scheerens, 1992; Willms et al., 2009, p. 10).

Brandi (p. 147 - [Link](#)), describing one of her teachers, spoke of the need for balance between structure, disciplinary climate and respectful relationships. A number of students had very positive comments towards classes where teachers had fair and transparent assessment practices, where they were flexible and open-minded, and where teachers had positive approaches to teaching and learning. For example, Balwant (p. 145 - [Link](#)) described his need for teachers to exert a little pressure or *academic press* on him (Willms et al., 2009, p. 13). Students also reported examples of positive school and classroom climate and noted feeling engaged when classes were interesting, varied, entertaining, and when the teacher has a sense of humour. For example, Derek (p. 142 - [Link](#)) explained the importance of having a connection with his teachers. Students commented in less positive ways about textbook teaching, overload of assignments and on having too much assigned homework. They felt more engaged in classes where teachers exhibited passion for their subjects and knew their subject matter.

5.4. Are Students Being Instructionally Challenged in Their Learning?

Research on student engagement suggests that students are less engaged than usual while in public high school classrooms, particularly in their academic classes. Classes and activities that have the greatest probability of engaging students both in the short-term and the long term are sufficiently "complex" in that they both demand attentive concentration as well as invite immediate enjoyment and interest. The hopeful result of such an educational approach is psychological complexity, whereby students are motivated by the immediate enjoyment of learning as well as building the skills necessary to reach their future goals. (Shernoff, 2002, p. 7)

5.4.1. *Findings from the Survey: Instructional Challenge and Flow*

As a reminder and as described in Chapter 4, in the WDYDIST survey, students were asked to respond to item statements concerned with their levels of confidence in their skills with respect to Language Arts/English and Mathematics and the extent to which they felt challenged in

their school work in these subject areas. Students responded to the statements on a 5-point scale of 0 to 4 from strongly disagree to strongly agree. The scores for challenge and skills were then averaged across the items in Language Arts/English and Mathematics respectively. The resulting average scores ranging from 0 to 4 were used to construct a 2-by-2 matrix of challenge versus skills.

Less than half of the students surveyed at the district level in this study reported feeling challenged and confident in their Language Arts/English and Mathematics subjects. This is consistent with the national results (Willms et al., 2009). Similarly, fewer than 50% of the students surveyed at the two school sites involved in this study, fell into the High challenge/High skills quadrant and reported feeling challenged and confident in their Language Arts/English and Mathematics subjects. Students in this category were more likely to have been interested and successful in what they were learning in school. Interpreting this category according to Csíkszentmihályi's (1997) theory of flow, students may have felt a sense of interest, enjoyment and concentration in their learning—or flow.

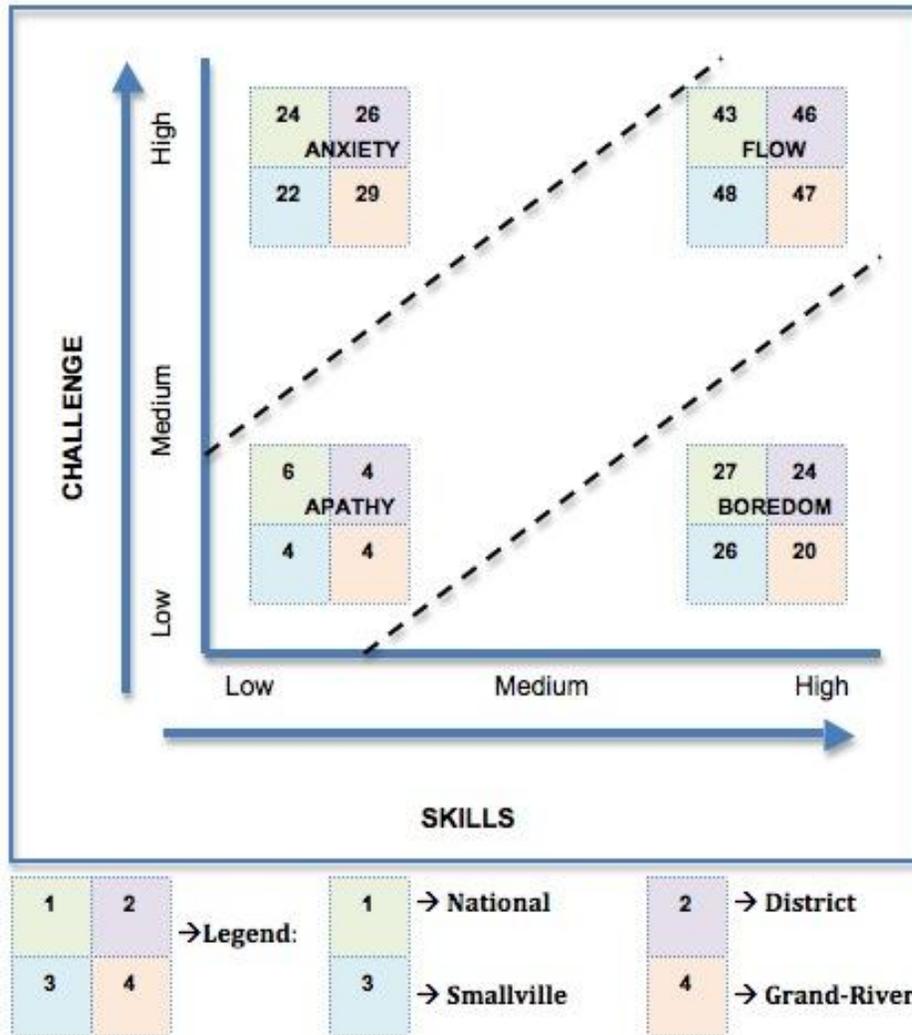
Nationally, only 43% of students are sufficiently challenged to meet their skill levels, whereas at the district level, 46% of students gave ratings placing them in the high challenge and high skills category. Slightly more students at Smallville (48%) and Grand-River (47%) fell into the High challenge/High skills quadrant compared with the School District or Canadian averages. On the other hand, more than half the students surveyed did not fall into this category.

The WDYDIST survey results in this study indicated that just over a quarter of the students attending Fraserview School District who were surveyed were less confident in their Math and English–Language Arts skills and found these subject areas to be challenging (low skills/high challenge). This finding is consistent with the national results. Slightly fewer students at Smallville and slightly more students at the larger Grand-River secondary school students fell into this quadrant. Students in this category may feel apprehensive or anxious about their learning.

Figure 26 visually captures the national, Fraserview School District and school level survey data utilizing the theoretical framework proposed by Csíkszentmihályi (1990) and introduced as part of the WDYDIST study (as cited in Willms, et al., 2009). Slightly fewer than one-quarter of all students surveyed in the Fraserview School District may have had feelings of boredom or felt that classes had little relevance in their schooling as compared to slightly more than a quarter of all student surveyed nationally (high skills/low challenge). Approximately 26% of Smallville students were confident of their skills, but did not find their class work to be challenging. Only about 20% of Grand-River students reported similar dispositions. Nationally,

about 27% of students may feel bored or feel little relevance in their schooling in these core subject areas.

Figure 24. Percentage of Fraserview School District Students Reporting a Sense of Being Instructionally Challenged



Note. Data summarized from the WDYDIST survey for Fraserview School District (2009). CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$. Adapted from Csikszentmihályi (1990, p. 74) and Willms et al., (2009, p. 14).

A relatively small percentage of students did not feel sufficiently challenged and they lacked confidence in their skills. At the national level, 6% of students were may be more apathetic towards their learning. This figure dropped to 4% at the district and school level.

The results suggest a relationship between level of skill and instructional challenge and from which one might infer the construct of flow. While these data are fairly consistent at the national, district and school levels, they indicate that over half of the students surveyed appear to report rarely experiencing states characteristic of being in a state of flow. By inference, many students may be bored or anxious about their schooling. Some may be apathetic towards school. Less than half of the students surveyed nationally report feeling both highly engaged and highly skilled. The District and school levels in this study were similar to the national pattern. The WDYDIST survey did not gather information about the participants' academic achievement levels. Therefore, this study does not enable correlations to be made between response patterns on the survey and participants' actual academic performances. This would be a useful further step in the research. It would also be useful to survey students who have dropped out of school in regard to their perceptions of the skill-challenge relationship in their school experiences.

5.4.2. *Findings from the Student Interviews: Instructional Challenge and Flow*

The concept of flow (Csíkszentmihályi, 1990) was examined as a potentially useful way to compare and describe students' varying levels of reported engagement and extent of being instructionally challenged through the combination of perceived deep focus, strong interest and general sense of enjoyment (Shernoff et al., 2003). The relative balance between the level of skills demanded and challenge experienced by students may lead to a sense of anxiety, boredom, apathy or excitement depending on the nature of the learning experiences for each child and their interpretations of the experience, whether deemed challenging for example, or not. In this study, I asked students about when they felt truly engaged in what they were doing, when they felt "in the zone" or experienced a state of flow. Students spoke about feelings of flow and engagement, about flow as a mental, intellectual activity, about "getting lost and being in the zone" in areas such as English, dance, art, drama, sports and physical activity, drafting, and photography. For example, Ann ([p. 158 - Link](#)) described her experiences as a dancer, Stephanie ([p. 159 - Link](#)) spoke about her time in drama class, and Ben ([p. 160 - Link](#)) related his experience in metalwork class.

Student participants readily accepted the concept of flow. They described circumstances when they were "in the moment." As a result of my experience with this research, I believe that we must provide greater opportunities in schools for students to pursue their passions and experience flow states via challenging learning activities and projects matched to individual skills.

5.5. What Meanings Do Students Have Regarding the Purposes, Requirements, and Importance of School?

5.5.1 Findings from the Student interviews: Importance of Schooling

Students were asked about their understandings about the importance, requirements and purpose of schooling. Derek (p. 164 - [Link](#)) suggested that school helps shape you for the future, but it is a somewhat malleable place that enables a person to personalize their experiences. Anthony (p. 163 - [Link](#)) added to Derek's perspective and described schooling as playing a necessary game in preparation for life in the "real world." Gurdeep (p. 162 - [Link](#)) was one of several students to describe school as a necessary stepping-stone to post secondary education, but with little chance for specialization.

An interesting exchange occurred among a group of four Grade 12 students at Grand-River Secondary School. Allison (p. 163 - [Link](#)) started the conversation by reflecting on the 13 years of schooling that they had all experienced by the end of Grade 12. Arman (p. 165 - [Link](#)) concluded with some sarcasm that it (school) is efficient. I believe he was equating the conversation to the notion that schooling is a quick and effective process designed to fill the empty pail. The comments in this section reflect an academic orientation to school that closely aligns with earlier findings about students engaging in school in order to meet the requirements of school.

5.5.1. Findings from the Student Interviews: Project and Challenge-based Learning

I asked students about their ideas about the value of project work and challenge or problem-based learning. Students discussed processes for group member selection, individual learning within group projects, group interdependency, the choice, relevance and creativity of meaningful projects, and the assessment of projects. The interview results suggested that projects are, at least according to the students in this study, not well utilized as a form of instruction in their schools. For example, Jackie (p. 167 - [Link](#)) described her perception of project work as being largely composed of individualized tasks. Projects are often used as homework assignments. They are assigned as group work with little attention being paid to the nature of the group participants, criteria for the project or assessment approach. In some cases, the assessment practices for projects did not always seem to be appropriate. Natalie (p. 169 - [Link](#)) was concerned about a large proportion of marks being assigned for the aesthetic qualities of a project. Balwant (p. 168 - [Link](#)) spoke about his dependency on project partners as a being a challenge for him. However, Zach (p. 169 - [Link](#)) provided a positive comment with respect to the

project definition, criteria and flexibility. Jonah (p. 168 - [Link](#)) related project-based learning approaches to 'real world' project teams with individual and group responsibilities. For these students, projects often seemed to be done as add-ons rather than as the core learning approaches. However, some students provided a few examples of more authentic projects such as that described by Neil (p. 169 - [Link](#)), a grade 11 student at Grand-River. The student reflections suggest that the possibilities of problem-based/project-based learning have not been fully utilized or exploited.

5.5.2. *Findings from the Student Interviews: Teaching and Learning with Technology*

Technology is often viewed as a key to improving student learning. While the equitable availability of technology might be important, it is how technology is utilized to support teaching and learning that may be more important. I have observed many students using technology in a wide variety of ways to support their learning: though research work; storing, manipulating and portraying data; sharing of files; using social media and text messaging to communicate or to connect directly through video-conferencing; creating visual images; recording and editing video-recordings; making music and much more. In many cases, students, especially boys, seem to be more engaged in their learning. I have also noticed that students seem to be more adept and intuitive with regard to utilizing new technologies as compared to their teachers. In repeating the comments first made by Marc Prensky (2001), students are digital natives and, while changing with each successive generation, most adults are digital immigrants. In this study, students were asked about the role of technology in teaching and learning. I believe that this is an area that warrants much more investigation. Students offered comments on a variety of issues with respect to using technology in the classroom. They commented on rules restricting access to technology in school, about the diminishing role of general-purpose computer labs in schools and the rise of mobile computing. They recognized a growing dependency of society on technology. Students expressed the perspective that while on-line learning is useful, they preferred a blended or combination of on-line and face-to-face learning experiences. Students readily commented that they use social media, but Facebook™ and text messaging seemed to be the most common tools for communicating.

Students find computing technology and e-content accessed via the Internet to be inviting. This is probably one of the few areas where change has been rapid and has had real applications and promising opportunities for teaching and learning. This is with the caveat that it is not about the technology, but what you do with it. Technology needs to be a supportive element in the teaching and learning toolkit. Yet, even in this domain, school systems have largely lagged

behind society in utilizing technology, providing the support and training and encouraging widespread use of digital tools. Interestingly, George indicated the need for schools to maintain the socialization and enculturation processes of education (Holmes, 1998, p. 32). This is an aspect of schooling that could be neglected through the prevalence of on-line learning that is not offered through a blended approach combining face-to-face instruction with other components provided on-line.

George: I think that kind of course (on-line) would need exposure like actual personal exposure to both the teacher and the other students from that school so as long we had days where we get together because that way you feel more of a connection to the class and you actually get something extra out of it. And then when it comes time, you know, to be learning online then at least you have initiative to go out and do it and, you know, you can still hang out with your friends at the library and say "well I'm going to meet there and get that done." 7sm12M2

Derek and Levi both spoke about the importance of technology for teaching and learning. They also mentioned the sustainability aspect of using technology versus paper use and suggested that equity is an issue for those who do not have a computer.

Derek: I think the trend that our society is like going towards (using technology) and our generation particularly is efficiency. We want to do everything and we want to do it right away, right now. We want to have the phones that can go on the Internet, that can, you know, keep us in touch with our friends, (and) you know, play games. Like, (do) everything. And I think we have to incorporate that technology (in our learning) because, you know, further down the road we're going to be utilizing it and it's going to help us. I know for my parents when they didn't really have technology growing up with computers and stuff so my mom's like "how do I send an email?" You know, so it's, I guess it's detrimental if you don't know how to use it (technology) because the way the world is turning you don't want to be behind the 8-ball. Right?

I know there are some days where I brought computers in for presentations in some English lectures and stuff and it just helps to be able to, you know, like you can type things out a lot faster, like I find than writing it out. And sometimes it's just easier to, you know, have it formatted in a computer and it's a lot easier to share, to make copies, to print. And just like the whole getting the information around via email, Internet, right. You can do research. There's just like, when you have a computer it's like you have access to like the whole world around you while you're learning. So I think it's like, it definitely would be very helpful (to have access to computers).

I know personally I brought a computer to like classes sometimes but I kind of felt out of place just 'cause nobody else had it. And I was talking to a friend, who went to school in Italy, right, and then she came back here and everyone in Europe

always uses a computer to school no matter like, you know, how old, right. Even elementary people are using computers to learn. And it minimizes on paper and stuff so I think it's... it's good.

11gr11M2

Levi: ... there's a school in a neighbouring district, ...and every kid has their own laptop. Literally they don't use paper and pencils and they've got a bunch of technology, new ways to learn. Like the kids out there, they're doing pretty well in school just 'cause they've got something to look forward to. Like we've just got paper, and pens, and are doing the same thing.

9gr11M1

Students such as Derek (above) and Zach (p. 172 - [Link](#)) were able to bring their own devices to school. However, from my perspective, at the time of writing this thesis, equity and quality of access to technology devices remain as significant issues along with home and school-wide high-speed access to the Internet. Portable operating devices, including laptops, tablets such as the iPad™ and smart-phones are becoming more prevalent in schools. Fixed computer labs are becoming less useful and, in most cases should be phased out. In Fraserview School District, the Internet blocks and filters preventing access to social media sites such as FaceBook™ and Twitter™ were removed. The rationale for initiating this move was that these sites are now part of our social fabric. Many mainstream organizations utilize social media (Discovery Education, National Geographic, etc.) and students can find ways to get around the blocked ports and filtered access anyway. During my interviews, a Grade 8 student commented knowingly about tunnelling as a method to avoid closed ports. I contend that in the current net-generation, technology-savvy world of digital natives as described by Prensky (2001), teachers will rarely be ahead of their students. The educator's role is to teach about appropriate use and facilitate or guide students in the various aspects of the Internet including communications, sharing and research. Teacher-librarians have been leaders in this area for a long time.

5.5.3. Findings from the Student Interviews: What Would Students Change about School?

Students were asked about school and if they could change anything, what would they change. Students' views of schools for the future were consistent, but not particularly radical. Students responded that they would like to see daily PE, schedules changed to accommodate learning, more field trips, more interactive learning opportunities, greater instructional challenges, better approaches to assessment and evaluation, less homework, more choice in course selection, personalized learning, greater access to technology and more school spirit. There seemed to be general consensus that schools of today did not meet their needs. Students' views of schools for the future were consistent, but not particularly radical.

5.5.4. Findings from the Student Interviews: Schools of Today—Schools for Tomorrow

During the interviews, I asked some of the students to give me one word they would use to describe schools of today. Students used words such as boring, low tech, necessary, ordinary, long, normal, friends, bland, limiting, unforgettable, average, mandatory, socializing, painful, dragged out, and hard... These words did not give me a sense that students viewed school as a great place to learn. Most words were somewhat negative in connotation. The same students were also asked to offer one word to describe schools for tomorrow, students used words such as exciting, interactive, interesting, active and entertaining, engaging, potential, connected, different, difficult, current, enjoyable, and free. These words seem much more hopeful and positive. They showed enthusiasm, hope and potential for schooling to be much more attentive to the needs of society and the needs of our students. A word cloud using *Wordle*[™] (Feinberg, 2011) was generated to provide a visual illustration of the most prevalent words.

Figure 27 and 28 represent word clouds of the most frequently occurring single word responses given by the students. While not scientific, I found this to be an interesting exercise and one that could be pursued using other word analysis tools. In retrospect, asking the same students during the group interviews for a word to describe schools of today and then a word to describe schools for tomorrow was not a good method. Students may have influenced each other and they tended to go to comparative opposites when making current and future considerations. However, since the students who responded were from different groups at the two schools in the study and from different grade levels, there does seem to be some consistency in their responses.

5.6. What Are Students' Perspectives about Success and Their Futures?

5.6.1. *Findings from the Student Interviews: Meanings of Success*

In order to better understand the concept of success as an outcome of schooling from the students' perspective, I included questions in the interviews that asked about their meanings of success. For the study reported here, a broad definition of achievement was used including various quantitative and qualitative measures such as graded achievement, student engagement, perceptions of satisfaction, and school completion (Wickstrom, 2003). In the interview phase of this research, in order to discover the range of their perceptions, students were asked what success meant to them and when they might feel successful or unsuccessful.

Students offered diverse perspectives with regard to success. These included having positive feelings of success, recognizing individual efforts over achievement marks and letter grades, gaining personal rewards over monetary success, enjoying out of school success and accomplishments, being happy in life, seeing success as a family, being proud and having a sense of accomplishment, achieving personal best and individual success, doing a good job and being recognized for this, getting good grades, showing improvement over time, and being valued. Students commented that success is more than just about good grades—success is hard to achieve and is more about character and personality.

Jerry, Pamela, and Kathy (p. 181 - [Link](#)) described aspects of success as an internal feeling and a sense of accomplishment that extended beyond schooling and letter grades. While Eric (p. 184 - [Link](#)) recognized parent and teacher pressures for getting good grades, he also perceived the achievement of success to be a long-term concept. While most students, like Julia (p. 183 - [Link](#)), saw success in two ways—marks-driven and personal accomplishment—some students, such as Matt (p. 183 - [Link](#)), were more pragmatic and retained a strictly marks-focused orientation. Ben (p. 176), on the other hand, described his accomplishment as an outcome or product. He was very proud of his achievements. Alexis (p. 185 - [Link](#)) suggested that success had less to do with earnings and monetary wealth and more to do with the positive attributes of an individual who does good work. Similarly, Derek (p. 182 - [Link](#)) concluded that success is embodied in the character and personality of an individual.

5.6.2. Findings from the Survey: Aspirations for Graduation and Post-Secondary School

Students' decisions to graduate and pursue post-secondary education, and their chances of realizing this goal are affected by several factors, including their literacy skills and high school credentials; the extent to which they are engaged in the schooling process; the support available from family, friends and other people in their social network; and the financial means available to them (Willms & Flanagan, 2007). This topic was also explored in the interview phase of this study.

On the WDYDIST survey, students were asked to respond to items concerning their aspirations in terms of high school completion and beyond. The results for the Fraserview School District indicated that a relatively high percentage of students planned to complete high school, more so than the national average. The figures did not vary noticeably across grade levels. More students from Smallville anticipated completing high school than shown on the district or national level results. At the larger Grand-River secondary school, students did not report quite as high an expectation of graduation. While the SES of students may be a factor, schools with higher levels of student SES do not necessarily have higher levels of engagement or demonstrate other positive outcomes of schooling (Willms et al., 2009, p. 26). While SES for each school could be determined from independent sources, this study did not report on the levels of SES. However, my subjective perception, based on many years working and living in the Fraserview School District community, is that the larger Grand-River Secondary School would likely have the higher level of SES.

In reviewing current completion rates for the Province of British Columbia and the Fraserview School District (British Columbia Ministry of Education, 2011) more students intend to complete high school than the current number who actually do complete within the expected time frame. The comparison also holds true for the Fraserview School District. In this study, more female students aspired to complete high school than did males. This difference, while not statistically significant, is similar to the national norms (94% girls versus 89% boys). There was less difference in the expectations of high school completion between girls and boys at Smallville High School as compared to the gender gap at Grand-River, which was the same as the difference on the national WDYDIST survey.

5.6.3. Findings from the Student Interviews: Aspirations for Graduation and Post-Secondary School

In the interview conversations, only a small percentage of students stated that they planned to seek out a trade or apprenticeship after graduation. Most students expected to graduate and planned to go on to some form of post secondary education, which many associated with college and university programs. Students did not have strong opinions as to the specific career pathways they would choose after high school. For many students, the high school years were seen as being for exploration of potential post secondary and career pathways. Makayla (p. 188 - [Link](#)) for example, spoke about high school years being exploratory and yet, she felt that she knew what her future goal was.

5.7. What Are Students' Views about the Influence of School Population Size on their Engagement?

5.7.1. Findings from the Survey: School Population Size

This study was not designed specifically to investigate school size effects on student engagement. However, the samples used in the student interviews were taken from the largest and smallest secondary schools in the district being studied and so the possible influence of school population size was broadly considered in reviewing the research results.

I reviewed the total data sets for Grand-River and Smallville secondary schools and conducted a *t*-test of independent means for any occurrence of a statistically significant difference between the two schools (see Appendix F). The statistical test did not reveal any significant difference between the mean results for each survey item for the school with the smaller student population and the mean results for each survey item for the school with the larger student enrolment. One must therefore take a great deal of caution with respect to interpreting the results and extending conclusions beyond a comparison of the two schools within the study. However, it is interesting to note that it appears that in all categories (School and Classroom Climate and Student Engagement), in every case, students at the smaller high school, Smallville with 603 students, demonstrated slightly more positive survey response patterns than their counterparts at the larger high school, Grand-River with 1,450 students (see Table 16). Students at Smallville also generated a pattern of more positive ratings on the survey scales than did their counterparts at other high schools in the school district and as compared to the national norms.

In reviewing the results of the survey in this study, the high school with the smaller student population consistently generated more positive student ratings for their school and classroom learning environments as compared to the District results and those for the larger secondary school. At the smaller high school, the level of engagement as rated by the students was slightly higher than reported at the larger secondary school. While students attending the smaller high school generally showed a greater degree of intellectual engagement than those at the larger secondary school, Grade 12 students at the larger school had a marginally higher level of intellectual engagement than their counterparts at the smaller secondary school. However, students at the smaller high school reported more intellectual engagement at the lower grades compared to the students attending the larger secondary school. A higher percentage of students from the smaller school anticipated high school graduation. Students at the larger secondary school did not have quite as high levels of expectation for graduation. While on average, students at the smaller high school gave higher ratings to items indicating the experience of a positive classroom disciplinary climate, this point of view dropped-off substantially at Grade 12. The data for students at the larger high school showed greater variability from grade-to-grade. The degree of variability between schools with respect to ratings of the disciplinary environment at the classroom level confirms research studies that suggest that climate is variable among and within schools and tends to be more classroom dependent and largely teacher driven.

In this study, students at the smaller high school reported that their teachers had high expectations for academic success—a number greater than reported for the larger secondary school, which generated a school rating less than the national average. Staff emphasis on academic skills and having higher expectations are reported by students as being higher at Grade 8 than at the other grades. There also seemed to be greater variability at each grade at the larger high school as compared that at the smaller school. While the students at the smaller secondary school retained relatively high expectations for success through Grade 11, the results of the student survey indicated a perceived drop-off in teacher expectations at Grade 12. Students at the smaller high school indicated the higher level of experiencing positive teacher/student relations. Nationally and locally in the Fraserview School District, students in Grade 8 and Grade 10 reported the highest levels of positive relations with their teachers.

The authors of the international PISA study (Willms, 2003) utilized the odds ratio statistic to assess the relative strength of a relationship or association between two data values. In the PISA study, for the school size variable, one unit represents 100 students. The odds ratio for a low sense of belonging at 0.98 indicates that the odds of a student having a low sense of belonging decreases by about 2% for a 100-student increase in school size. The analysis

indicates that some relationships are curvilinear; for example, in the case of school size, for a low sense of belonging, the relationship becomes weaker with increasing levels of school size (p. 44).

5.7.2. Findings from the Student Interviews: School Population Size

Students in this study were asked about whether or not smaller or larger schools helped them become more engaged. The students discussed the need for a diversity of challenging courses and intellectual challenge, and suggested that it was hard to adjust to larger communities when coming from a smaller school environment. They also noted the limitations due to the lack of choice, range of available courses and teachers in smaller schools, juxtaposed with the possible advantages of having better relationships with students, teachers and others. The students also commented that larger schools, properly structured, could still offer a social sense of community.

In the interviews conducted for this study, students in the smaller school spoke about the challenge of accessing a diversity of courses. They commented about the limitations due to the lack of choice, range of available courses and even choice of teachers. They also felt less intellectually challenged and experienced a difficult adjustment if they transferred to a larger setting. For example, Jackie and Jessica (p. 191 - [Link](#)), talked about the lack of choices available at Smallville. However, students transferring to Smallville from larger schools reported experiencing a warm welcome and were able to quickly establish friendships. The students at the smaller school seemed to value the relationships they experienced both with other students, with teachers and other adults in the smaller learning environment. Brandi (p. 193 - [Link](#)) also commented that teachers seemed to get along well with their colleagues in the small school. Will (p. 192 - [Link](#)) spoke about the community feeling of the smaller school. However, Andrew (p. 194 - [Link](#)) said that students at the larger school managed to overcome the potential 'anonymity' effect of being in a school with a larger student population by developing a sense of community through social interactions in smaller group settings, as with sports teams, clubs or as part of the grad class.

5.8. Summary of Findings

‘Cause like if you don’t get through high school and you struggle pretty much not wanting to come to school and it’s pretty much like you know how you, if you don’t want to be at school and you don’t want to be there, I guess you’re not going, you’re not going to really do well in school, and you probably won’t be as successful as you will be if you try in school and get good grades. Because once you get out of school, you’ve got to have, like get a job and if you get a low paying job and you get stuck in there and you can’t like move up and get better, get a better paying job and then I guess if you don’t focus in school and learn and get an education. (Noel, Grade 11)

The central question of this study was to examine from students’ perspectives what constitutes engagement in school. The research utilized data from a national survey (WDYDIST) and was followed by semi-structured group interviews with students from two high schools in an urban British Columbia school district. The research question was explored through several sub-questions, which were:

- What are students’ views of when they learn best?
- Why do some students feel connected to school and others do not?
- Under what conditions are students engaged in school?
- Are students being instructionally challenged in their learning?
- What meanings do students have in terms of understanding the purpose, requirements, and importance of school?
- What are students’ perspectives about success and their futures?

The study was assessed whether or not the students’ responses could be interpreted to indicate their engagement with school as a construct of engagement as defined in current research. Stated as a research question, this phase of the study asked: What do the student descriptions of their school experiences indicate about their engagement with school and school-based learning experiences? I wish to acknowledge the participation and contribution of students throughout this process. I set out to determine what student descriptions of their school-based learning experiences indicated about their engagement with school and the extent to which student descriptions of their school experiences were congruent with or different from scholarly concepts of student engagement. I firmly believe that this study has revealed some important areas for consideration with respect to students’ perspectives about engagement in school. I further believe that it is critical that we take into account what has been described in this study and act upon the messages heard from the voices of our students.

In reflecting on the questions posed at the outset of my thesis, I now have a much stronger view of the importance of student engagement than I first contemplated at the beginning of this study.

5.8.1. *What Are Students' Views of when They Learn Best?*

I asked students about when they learn best and under what conditions they feel engaged in school. Students provided a wide variety of responses. This is not surprising given the uniqueness of every student (as modelled in Figure 2). Students told me that they preferred having intellectual challenges. However, they also indicated a need for structure and varying strategies for different learners. They were particularly vocal about their teachers. They loved the vibrant, energetic, passionate teachers. They enjoyed teachers who had a great sense of humour and made school fun. Students appreciated teachers who were respectful, caring and who appeared to value them. They felt that teachers who were creative inspired student creativity.

However, students also expressed concerns about people who they felt should not be teaching. These were teachers who appeared to have lost their enthusiasm and spark for teaching (or perhaps never had it). On the whole, however, students were not harshly critical of their teachers or schools, even while pointing out things that might be improved or that they would prefer to see in place of current practices. Many students expressed a strong desire for choice and flexibility in their school experiences. In fact, they often spoke about their best learning having taken place outside of school, on field trips, while volunteering, working or sometimes gaining learning experiences with adults other than their teachers. The words, relevant, authentic, interactive and meaningful came up a lot in their descriptions of learning. I heard many times that students preferred doing meaningful projects and liked hands-on experiences. These findings suggest that to varying degrees, most students are engaged in school in some combination of the social, academic or intellectual dimensions of engagement (see Figure 2). The students have many views about how they believe that they learn best. I believe that our challenge is to put into place and emphasize more practices that might assist all students to learn and less of what takes away from their ability to learn and progress through school.

5.8.2. *Why Do some Students Feel Connected to School and Others Do Not?*

The results of this study suggest that most students have a good sense of belonging in school. I viewed connectedness as a proxy for sense of belonging, which in itself seems to be very closely related to social engagement. I couple belonging and engagement together with the perspective that students might more likely have a greater sense of belonging if they are more

fully engaged in school. Sense of belonging seems to be dependent on the relationships established at the school—whether with the adults or other students. While the students in this study had the experiences of their current high schools, the findings seemed to indicate that the smaller school in the study had a stronger sense of community and a more positive sense of belonging. The variability even between the two schools suggests that factors other than enrolment size and related to school culture and climate may have been factors in these differences. In keeping with the findings reported by Willms (2003), this study corroborates the view that student engagement may have more to do with the culture of the school including the critical roles that teachers play. Students are perhaps more likely to be engaged at school if there is a positive school and classroom learning climate that includes having good student-teacher relations, a strong disciplinary climate, high teacher expectations for student success, effective use the learning time and sufficient instructional challenge.

I am particularly concerned that some students do not have a good sense of belonging in school. These students may be isolates, lonely and without strongly held relationships. They may be vulnerable to bullying, being ostracized and become less and less engaged in school. I would suggest that our system must do everything it can to reach out and connect with every child. This is another reason why I believe that the current move towards more personalized learning (British Columbia Ministry of Education, 2012; Hargreaves, 2007) is important. To take from a long held cliché, in a positive way, school should be a place where, “Everybody knows your name.”

Making your way in the world today takes everything you've got.
Taking a break from all your worries, sure would help a lot.
Wouldn't you like to get away?
Sometimes you want to go
Where everybody knows your name,
and they're always glad you came.
You wanna be where you can see,
our troubles are all the same
You wanna be where everybody knows
Your name.

(Portnov & Angelo, 1982)

5.8.3. Summary of Findings: Social Engagement with School

Many students attend school for social reasons—I think this is a good thing. This form of engagement also seems to be very prevalent. Many students in this study told me that they go to school to be with their friends. Some are passionate about the arts. They enjoy the opportunity to perform and participate in activities that they perhaps don't recognize as an important aspect of schooling. Other students are athletes. They go to school because they enjoy rugby, soccer, basketball or other competitive sports. Their engagement in school is less about subject matter

and scholarly pursuit than it is about the interaction with friends, peers and teammates. For some individuals, school provides an avenue for them to achieve personal best, whether in music, visual arts or individual sports. These endeavours are very real and very important parts of their lives. School is an essential place for socialization, enculturation, and making lifelong friendships.

In response to the importance of social engagement to students' experiences of school, I have initiated changes in my current school district (note that this is not the district in which this research was conducted) with respect to on-line learning. While I believe e-learning serves a purpose, I also believe that it can be isolating for students and for the teachers who solely instruct in such program formats. I favour a blended approach with classroom teachers offering on-line components of their courses and perhaps offering a few on-line courses as a part of their overall teaching assignments.

5.8.4. Summary of Findings: Academic Engagement with School

The research for this study also revealed that some students, while somewhat socially engaged in school, mostly attend school because they have to. School is a requirement and a necessary step for them to move on in their lives. For me, academic or institutional engagement is the most problematic form of engagement. While the stated reason for attending school to fulfill the necessary prerequisites makes sense, it seems to portray a bland, mechanical view of school. It is important for students to go to school, be on time, and complete assignments to the best of their abilities. However, while necessary, this rote approach misses the socially and culturally rich meanings that can be associated with schooling and education as defined by Brown and Duguid (2002), Goodlad (1999) and others.

5.8.5. Summary of Findings: Intellectual Engagement with School

The results of both the WDYDIST survey and the student interviews suggest that fewer students are intellectually engaged in school than we might wish. Friesen (2009) described this category of engagement as focused attention to learning that requires intense dedication and a strong desire to want to know resulting in a deep, personal commitment on the part of students to explore and investigate ideas, issues, problems or questions for a sustained period of time. Findings from this study corroborated the claim by Willms et al. (2009) that only about 50% of students are intellectually engaged in their schooling. In fact, the results of my study suggest that this dimension of student engagement in school is not common. I believe that this situation should be changed.

I believe that school experiences should be inviting and interesting. Current curriculum and school organization models do not encourage or invite students to the personal pursuit of areas of the syllabus that are of passionate interest. Time is a big factor here as students noted in their interview comments about the shortness of class periods and the constraints of timetables and class schedules. Traditional school schedules do not permit sustained initiatives or long term investigations. Global or community projects that students indicated were of interest cannot be handled properly under the present timetabling schema in most British Columbia schools. I believe we should actively encourage greater flexibility in how the curriculum is developed, packaged and delivered. I believe that we should spend much more time with our local communities identifying potential areas of study and projects to be undertaken. I feel that by providing more time and more opportunities for students to become involved in school initiatives and projects outside of classrooms, we may increase the level of intellectual engagement.

5.8.6. *Are Students Being Instructionally Challenged in Their Learning?*

I interpret the results of this study to suggest that students are not being sufficiently challenged in their learning. My interest in this question was to try to understand the relationship between engagement and flow (Csikszentmihályi, 1997). I believe a constantly changing approach where learning experiences are designed to increase the level of instructional challenge concomitant with the degree of skills required by students in order to meet those challenges congruent with individual student skills and abilities that the interest and overall engagement of students will be maintained and extended. There are many programs of study that might appropriately provide avenues for greater instructional challenge and offer students greater choice and flexibility. Programs such as the International Baccalaureate programs,¹² Advanced Placement,¹³ Montessori,¹⁴ Destination Imagination,¹⁵ Universal Design for Learning,¹⁶ project learning schools, science fairs, mini-schools, academies, and others might be models for enhancing instructional challenge. In this study, students reported many instances where they were engaged in their learning through personalized approaches. My experience suggests that such practices take place already in many schools. We must find ways to increase the level of instructional challenge and spread the examples of good practice.

¹² <http://www.ibo.org>

¹³ <http://www.ap.ca>

¹⁴ <http://www.montessori.edu>

¹⁵ <http://www.destinationimagination.ca>

¹⁶ http://en.wikipedia.org/wiki/Universal_Design_for_Learning

5.8.7. *What Meanings Do Students Have Regarding the Purposes, Requirements, and Importance of School?*

This question was designed to elicit students' views about schooling in connection to engagement. Some students felt that school was a place for developing social relationships, having fun, and being a time for enjoying friendships. The formal requirements of schooling, while evident were not of primary concern for some students. Students in this category seemed to be mostly concerned with their immediate future and less worried about the importance of school for the future. Some students had already worked out what they would like to do after high school completion. This attitude was more evident among Grade 11 and 12 students. Many students had post secondary education in mind. However, I noted that some did not really know why they were planning to go on to college or university. I found it unfortunate that many students had not considered a trade, apprenticeship or vocation other than university academic programs as a viable next step.

Academically engaged students understood the institutional requirements of school. They described the courses they were taking and why they were enrolled in these courses. Students in this category were conscious of getting good grades. Social relationships were still important for these students, but the necessity of school for advancing to another stage in their lives was quite evident. However, there are some students who are not particularly engaged in their schooling, but still recognize that they must graduate to move on. These students are unlikely to have a plan for the future in mind. They don't like school and would like to be out of it, but don't see a choice ahead of them. I am most concerned for these students. They are more at risk for failure and potentially dropping out. If the interests of these students were identified and, if they were then encouraged to follow these interests, perhaps they would become more engaged in school rather than viewing it as a necessary, but unrewarding experience.

A third smaller group of students, those who are more intellectually engaged in their learning, understand why school is important, but the pressures and tensions to succeed and graduate may not appear as great to them as others. These students may have a circle of friends, but socially, they are not necessarily the centre of their peer groups. This group of students might also be isolated or disconnected from the mainstream body of students. They are focused in areas that are of great personal interest, they love what they are doing in school and want to do more. At the extreme these students may be impatient to move beyond what they might perceive to be a relatively mundane school experience, although they recognize the purpose, requirements, and importance of school.

My interviews with students revealed a wide range of opinions and perspectives about the purposes of school and their intended future directions. Rather than falling neatly into one of the three categories of engagement (social, academic and intellectual), the diversity of student views suggests that aspects of all three dimensions of student engagement were to be found in most students (although at different levels as illustrated in Figure 2).

5.8.8. *What Are Students' Perspectives about Success and Their Futures?*

Through this line of questioning, I was hoping to get at notions of success as they are interpreted through students' engagement in school. I wanted to see if differing points of view reflected an academic/institutional engagement orientation versus other dimensions of engagement. I was somewhat surprised, and pleased to hear the range of opinions regarding students' perspectives about success. This was not all about marks. Students offered a wide range of perspectives with regard to success. Very few comments actually focused on the achievement of grades as a marker of success. I believe that this is an area to pursue through further investigation.

5.8.9. *What Are Students' Views about the Influence of School Population Size on Their Engagement?*

This study was not designed specifically to investigate school size effects on student engagement. However, since the samples used in the student interviews were taken from the largest and smallest secondary schools in the district that was the site of this study, the possible influence of school population size was broadly considered in reviewing the research results.

While not statistically significant, it is interesting to note that in all cases, students at the smaller high school indicated somewhat more positive survey results than the students at the larger high school. During the interview phase of my study, the broad range of comments by students regarding the effect of being in a large or small secondary school seemed consistent with Willms' findings (2003, p. 55). He concluded that effects associated with school size are "inconsistent and relatively weak". This makes it difficult to draw substantive conclusions from the data that can be extended beyond the two schools investigated with respect to the effect of school population size on the development of student engagement and sense of belonging in school. However, it seems from the students' comments during the interviews that having smaller learning environments enables students to build relationships with each other and with their teachers. Still, it is difficult to draw conclusions here, as most students reporting out have not had

the benefit or challenge of attending a school different in population size or organization from their own.

I have strong opinions with regard to establishing appropriate school population sizes, favouring where possible, smaller learning environments. Large comprehensive high schools, while possibly providing greater choice and flexibility, can potentially become anonymous factories for learning. However, large high schools can be very successful if the school is able to build strong teacher-student, student-student and even staff-staff relationships. This is possible by establishing mini-schools, alternate programs, specialized programs, academies, and schools-within-schools.

5.9. Conceptual Framework and Summary of the Study

From the standpoint of the child, the great waste in the school comes from the inability to utilize the experiences he gets outside the school in any complete and free way within the school itself; while on the other hand; he is unable to apply in daily life what he is learning at school.

(Dewey as quoted in Chen, 2010, p. 11)

The central question of this study was to examine, from students' perspectives: What constitutes engagement in school? This research question was explored through surveying and interviewing students in two secondary schools in an urban British Columbia school district. In reporting the results and findings of this study I have organized the preceding chapter according to the research sub-questions. Within the research sub-question framework, I then chose to organize the flow of the report by presenting the data for each dimension of the WDYDIST survey followed by related themes provided through the interview data. I then provided a summary of those findings.

In reviewing the results, however, some interesting patterns surfaced that cut across the research questions and categories of the survey and interview data. What follows, synthesizes the outcomes described in Chapter 4 and arranges them into three areas of interest: (a) Engaging learning experiences as seen by students; (b) good teaching and effective teaching practices from the students' perspectives; and (c) school organization as viewed by students, including scheduling and the use of time. I conclude this chapter in the subsequent section with several recommendations that I contend are supported by this study. The recommendations are similarly organized into three themes: student learning experiences; teaching practices, and support and development for teaching; and the organizational requirements of school.

5.9.1. *Learning Experiences from the Students' Perspectives*

Students enjoy learning. This clearly emerged through the voices of many of the students during the interviews. Some students preferred more structure and others seemed to prefer a more open-ended approach to learning. It would be interesting to further investigate differences between students who are more academically engaged versus those who have greater social connections with school and their preferred types of structure and climate in classrooms. I also arrived at the perspective that students who are more deeply engaged intellectually in their learning appreciate structure, but if seen as necessary will follow their learning pathways in spite of the teaching approach, organizational structures and support mechanisms available. I recall in particular, a student of mine who had a deep passion for the sciences. He was far ahead of his peers with respect to his interests and would spend hours investigating science phenomena through experimentation on his own. It was all I could do to just facilitate and encourage his learning. He eventually went on to become a very successful individual in the field of medicine. Apart from supporting his learning where I could, I believe he was so deeply, intellectually engaged in learning that as his knowledge and skills developed, he raised the level of challenge for himself.

From my perspective, what is of concern in the findings of the study reported here is the apparent low level of intellectual engagement among high school students—reported at less than 50%. This was true in the cross-Canada WDYDIST survey data and was confirmed by the survey responses of students attending the Fraserview School District. Over the past several decades, I have observed what I perceive to be an educationally significant level of disinterest and disconnection with schooling—particularly for boys. This coincides with international and national level data on the lower achievement of boys and the relatively higher dropout rates for boys versus girls (Bowlby, 2005; British Columbia Ministry of Education, 2012; Conference Board of Canada, 2010; Gilmore, 2010; Knighton et al., 2010, pp. 15 and 30; OECD, 2010; Richards, 2011).

I am very conscious that this study examined the perceptions of students who attend school and have not dropped out. The results of the study reported here suggest to me a need for everyone connected with schooling to re-examine the nature of the high school experience, to reconsider the current structures of curriculum and instruction, and to attend to the needs of students who desire a school experience that is engaging, stimulating and inspiring. I believe that one avenue to further explore is through meaningful, problem-based learning. I wish to emphasize the words authentic and relevant. I heard through the voices of students in this study their frustrations about poorly designed projects, inappropriate assessment practices,

meaningless projects and concerns over how students were assigned to groups. More broadly based, community-oriented, cross-curricular projects that are highly challenging, designed to do some good for the world (local or global) and co-constructed by students and teachers would, in my estimation, make a huge difference to the views of the school experience for young adolescents. To illustrate my point, the following are excerpts of students from various grade levels who were interviewed in different groups. They all had important things to say about their learning experiences. I also note that these participants are mostly boys and mostly from the smaller high school—students at that school seemed to report stronger social relationships, a greater sense of belonging and a higher rating with respect to having a positive school and classroom climate.

Theo: I like learning almost like as if I was in a group or where I have someone beside me to talk to or try and figure things out... and ya, that's how I learn best... it's cool because you can just discuss ideas and put things together and ya, just do it so it's not all just on your shoulders. 3sm09M6

Olivia: ... I just think back to the elementary school when teachers would use like games and like different activities to like help you understand that stuff. And then you get to high school and it's like just the paper and you have to understand it. 10gr12F2

Tejbir: ...I think if we were like given a chance to like be creative of do hands-on, you know what I mean. `Cause all kind of like our, in school, it's all kind of like hearsay, you know what I mean? Like what teachers tell you is like the truth right. You don't really get to experiment and like see if it's actually true, right. So it's like, I don't know, I think it's good when like you're given the chance to like in say in Science do experiments or in like English to like write your own thing or something like that right. I think it's important for like us to have like more like freedom to kind of do what we want... that's why I like English so much right `cause we do that. And it's like, whereas in like Math say, it's very structured right. It's like you have to do your equation this way and it's like say even if you find a way to do an equation like another, right, say something works for you, right, teachers are kind of like "don't do that" or something like that right. "Do our method `cause it's like way better and all this even though it works for you" right. So I don't think we're given enough like chances right. 2sm10M6

Peter: The winky-blinky (was a favourite project) we did in Grade 8. It's probably my favourite... we had like, we had this teacher here—she was Russian—it was just like such a fun class and everyone loved it. It's like this light up thing where it, like there's two LED's and it was run by like a 9-volt battery. They were all like soldered together. We had to solder all the parts and stuff. 2sm10M5

Ben: ... You feel like you've done something good. I felt successful when I finished my night stand, my first one, just `cause, I don't know, I planned it, I drew it out, built it myself. You watch just a

bunch of pieces of wood and then it turns into this like thing you built. It's pretty awesome. 1sm12M2

Chris: I think some projects are a bit, like it's, a lot of them are off topic and not really involved with the learning. The teacher needs more marks for the student so they just say "oh go make a paper plate jelly fish" or something (like that). 4sm11M3

5.9.2. Teaching Practices from the Students' Perspectives

During the interviews, students spoke often about the importance of their teachers to their experiences in school. In many cases, students described the outstanding qualities of teachers. For many, a particular teacher was the reason for them choosing a class and enjoying their learning experience. According to the students surveyed, a generally positive classroom environment exists in the two schools in this study. Kathy, Eric, Melody and Jonah described examples of more positive teaching approaches that seemed to have as much to do with relationship building as with the teaching style, content, and structure of the class.

Jonah: ...also if the teachers do new things, not just one thing all the time. That one thing that sticks out, that's the thing you always remember. It's like you go on a bus every day, but then one day someone sits next to you... it's different. You remember that one day out of all the bus rides... 2sm10M2

Kathy: 'Cause, I don't know, if you have a teacher who's like good at teaching and is passionate about what they're teaching, then I find it kind of, their energy kind of goes to the students and makes them want to learn as well. 1sm11F3

Eric: ... she has such like an approachable way of teaching and she's like, I just think she's a very good example of what a like a good teacher is and she allows re-tests because she believes that like learning a language or just any subject, you don't just stop there once you've done the test, it just keeps going. And then like you would obviously you are better in June than what you learned in September so she gives you the option to do re-tests. 5gr09M1

Melody: Just because of the teacher, it was relaxing. Like if someone said something wrong she would tell you that's wrong. She would be like "oh nice try" but she wouldn't be like "okay well what is the answer? What is it? What is it?" 'Cause that, I don't know, I get nervous when teachers kind of put me on the spot and I don't know. It's like, I'm not going to know... So I think it's more the teachers' attitude toward how they want to teach the class that helps. 8sm12F1

I contend that one of the greatest influences on student success is the effectiveness of the teacher in the classroom. This perspective is supported by other research (Creemers & Scheerens, 1994, p. 134; Hattie, 2002, p. 2, 2009; Lezotte, 1991; Marzano et al., 2001; Mortimer et al., 1988; Rowe, 2003; Sammons et al., 1995; Scheerens, 1992; Willms et al., 2009, p. 10).

I also propose that both previous research and the findings of this study suggest that we should redouble our efforts to value our teachers, support them in as many ways as possible, develop and encourage innovative and good teaching practices, and identify and act upon those few instances where a teacher should not be teaching. Students in this study identified numerous instances of good teaching practices. They were clear in suggesting that good teaching contributed to their engagement in school. However, a few had encountered teachers who did not provide a positive learning experience. The following exchange of comments illustrates students' views of poor teaching practices.

Shannon: I had a really bad experience last year with one of my courses and that kind of turned my, the whole career (path around). Like I wanted to be an architect but that one course totally changed it for me. I still, I mean I still like that course. The only thing is that teacher made it so worse for me that I just don't want to take it anymore. It's, like the teacher makes a difference, you know. Like either, the teacher can make it really nice, fun and understandable or the teacher can make it really confusing and so frustrating, you know. 7sm12F5

Dylan: ...I had a teacher who would walk into the classroom give us a whole page of notes to do, say "work this from the textbook," leave and come back for the last 5 minutes of the class and collect it and say "okay next day I'll mark it." And we would do the same thing every single day. 7sm12M1

Carly: And the students will respect you more if they realize that you're not—if they see that you're teaching straight out of the textbook the students lose respect so quickly. You're like "I could have taught this course to myself." 7sm12F2

This study was consistent with much of what we now know about school effectiveness. The results of the student survey and the interviews, from the students' perspectives, add to the body of knowledge confirming that teachers make a difference (Hattie, 2009). Based on my long experience in public education, I would agree with the students' concerns and comments about what constitutes good teaching and where it may fall down. We have to do more to better train our beginning teachers, to mentor them through their early years, and to provide strong support and development throughout their careers. We must also act more quickly and more decisively upon examples of poor teaching practices through appropriate due processes. Such practices reflect badly on the profession as a whole and harm the students in our care.

5.9.3. School Organization from the Students' Perspectives

An important aspect of schooling that surfaced from the WDYDIST surveys and student interviews was with respect to how schools are organized. From my perspective, there has been little substantive change over the last century with respect to the organization of schooling—since the days of Dewey (1916) and the Putnam and Weir (1925) *Survey of the School System*, a report commissioned for the Province of British Columbia, our system has weathered the occasional demand for change and withstood the occasional foray into system reform. Schools in BC continue to offer standard subject and traditional discipline-bound courses, organized by grades and partitioned by age groupings. The focus of this study was not on the content or structure of the curriculum per se. However, students commented during the interviews about various structural and organizational elements of schooling. From my perspective, the curriculum is bloated and knowledge-based versus conceptual and mindful in nature. By inference, a more relevant and meaningfully created curriculum might better engage students. The curriculum is mainly provincially prescribed as opposed to being determined in a local context. Independent directed studies (IDS)¹⁷ available to students in British Columbia, but in my opinion minimally utilized, offers an avenue into a more user-defined approach to learning. IDS courses of study enable students to initiate their own area of learning and are intended to encourage schools to allow students to pursue further studies of personal interest.

From an organizational perspective, each course at the high school level assumes approximately 100 hours of instruction. Through provincial regulation, the school day is defined right down to the minute by tight schedules. The school day usually starts at between 8:30 am and 9:00 am and ends at about 3 pm when the bell tolls—5 days per week and approximately 40 weeks per year. High schools still largely operate on an industrial model reminiscent of Taylor's (1911) principles of scientific management and Bobbitt's (1912) views on precision and efficiency in education with classes today mostly divided into equal blocks of time factored on increments of eight—usually around a linear school year, less so semestered (4 blocks per day for half a school year), with a few schools operating on quartered systems. The length of the school year is approximately 190 days starting in early September and concluding at the end of June. Long summers remain, in spite of the shift from an agrarian economy. Even school buildings are essentially as they have been for decades, although architectural styles have varied. Last year, six schools in my current school district celebrated their centennials. Schools tend to be single purpose institutions and generally serve the local community and as a result are more likely to be

¹⁷ http://www.bced.gov.bc.ca/policy/policies/earning_credit_through.htm#

comprehensive in course offerings with relatively little focus and specialization. High schools have been likened at times to shopping malls and at other times factories, balkanized with very little pedagogical interaction between departmental silos (Hargreaves & Macmillan, 1992). From my perspective, high schools are also mostly too large. I perceive greater individual success for students attending mini-schools, schools-within-schools, alternative programs, specialized schools and choice programs. While efforts have been made to create more meaningful parent involvement, schools still tend to be closed shops to outside involvement or influence. Voluntary help and the use of outside expertise are not typical. Schooling is mostly accomplished within the four walls of the classroom. Perhaps a glimmer of hope in this respect is offered through the advancement of technology and through blended on-line learning approaches.

Students spend their school years from Kindergarten through Grade 12 experiencing these structured arrangements. I suspect that most teachers, who were schooled themselves within these structures and do not necessarily know of other approaches to school organization would be resistant to large-scale change. Similarly, parents are perhaps even more resistant to major system renewal based on their own experiences and unwillingness to experiment or veer from the norm for their children. As the WDYDIST surveys and interviews indicated, the usual pathways to the world of work and post secondary school seem to be well patterned for students and are further encouraged by their parents. Students appear mostly oblivious to the potential limitations created under these traditional organizational structures and just proceed through their school years according to the requirements and expectations of society. Some students even expressed a preference for the more traditional structures of schooling. Other students did notice various shortcomings of the current system.

This section provided some of the findings that synthesize and interpret the WDYDIST survey and student interview data. The section considered learning experiences, teaching practices and the organization of school from the students' perspective. The following section offers several recommendations, which are supported by and emanate from this study. These recommendations are similarly organized into three themes, which focus on: student learning experiences; teaching practices, support and development; and the organizational requirements of school.

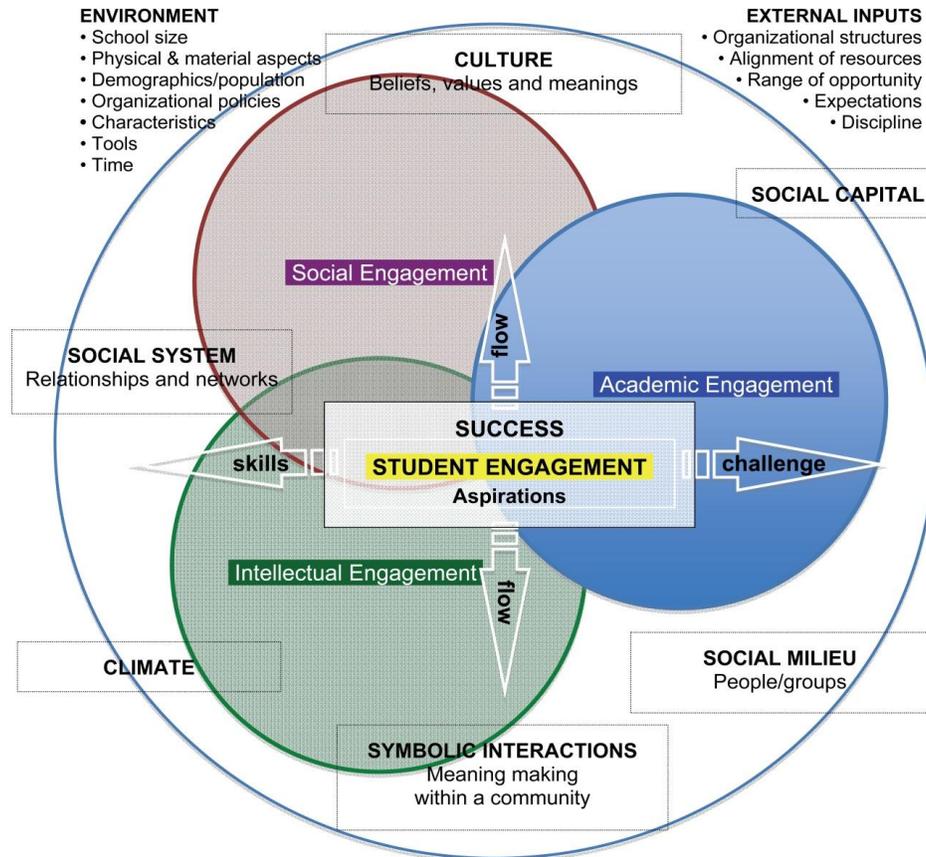
5.9.4. Conceptual Framework for the Formation of Student Engagement

The central question of this study was to examine, from students' perspectives: What constitutes engagement in school? The question was explored through a series of sub-questions deployed via a student survey and series of semi-structured group interviews. These provided a rich source of authentic student-based data.

In introducing the study, I proposed a working diagram to describe the formation of student engagement (see Figure 1). In analyzing the results of my study, I have been able to further elaborate on this initial diagram to create the conceptual framework illustrated (Figure 29). This organizational frame helps delineate, in a logistical and visual way, the interactions among the various elements, which may contribute to the formation of student engagement and success as an outcome of schooling. It brings together several areas of my research including aspects contained in the figures presented earlier in this study (see Figures 1, 2, and 3).

This framework begins at the centre with a focus on the student and his or her desires for success and aspirations for the future. The student's enjoyment and fulfillment is accomplished through a careful balance between his or her level of skills and the degree of challenge offered through experiences in school. Each student is variously engaged in their learning socially, academically and intellectually. The culture and climate of the school and classroom are factors, which influence each student's experiences in school. Through school and classroom relationships and networks, each student builds a level of social capital to be accessed as they make their way through school and experiences. The social milieu at the school and how each student interprets and makes meaning of the culture in turn influences and shapes the student's engagement. There are various external structural and organizational inputs, which also impact the school and classroom culture and climate.

Figure 27. Conceptual Framework Showing Possible Relationships among Various External and Internal Dimensions, which May Lead to the Development of Engagement



Note. Derived from Anderson, 1982, p. 405; Brown & Duguid, 2002; Csíkszentmihályi, 1997; Goodlad, 1999, p. 574; Malen & Rice, 2004, p. 637; Pittman & Haughwout, 1987; Willms, 2007; Willms et al., 2009.

5.9.5. Summary of the Study

If a generation fails, the fault lies squarely with the previous generation for not equipping them well enough for the changes ahead ...generations yet unborn will give thanks that we returned adolescence to its rightful place of enabling young people to go beyond self-imposed limitations, and exceed their parents' aspirations. That is what adolescents do naturally—given the right opportunity.
(Abbott, 2010, p. 258)

The central question of this study was to examine from students' perspectives what constitutes engagement in school. The research utilized data from a national survey (WDYDIST) and was followed by semi-structured group interviews with students from two high schools in an urban British Columbia school district. The study reported here has demonstrated that there are

varying levels and forms of engagement in school among young adolescents. It has revealed that individual students may be more or less engaged in school for academic, social and intellectual reasons. It is not necessarily a bad thing for a student to be more socially or academically engaged than intellectually engaged in school. Students are unique in their make up with differing personalities and behaviours. Each student will exhibit varying degrees of engagement in school: social, academic and intellectual (illustrated by Figure 2). It is also hard to imagine a student not being at least partly engaged in all three of these dimensions. However, one must be realistic in that it is not expected that all students will be fully engaged in their learning all the time. In fact, it is more likely that students are socially engaged at certain times, more academically engaged at other times and, on occasion, deeply intellectually engaged in their learning. This might fluctuate given that it is likely highly contextual to the time, place and background of each individual and the social milieu in which the students find themselves.

Probably the greatest concern is for those students who are not engaged in any way in school. There are many students who attend school and who are not particularly engaged in any way in their learning. It might not be possible to have all students attend school and it is unlikely that all students will be fully engaged in their learning. However, it is a worthy goal—to ensure that as many students as possible complete high school and move on to be productive, contributing, successful, and civil members of our society. Further, we should hope that students will have enjoyed school and continue with a love for life-long learning. Some have argued that schools are established for the greater economic well-being of the country and that the costs of not attending to problems of low engagement and of dropping out will cost society in many ways. Others claim that schools are established to educate and enculturate—to provide each individual with a socializing experience that serves both the self and the greater good. I believe students today are asking for an education system that enables long-term success and that also provides the interest, motivation and sense of belonging so necessary for them to become successful in the complex society in which we find ourselves.

Quite recently, I supported a school district forum involving about 250 students. The forum was organized for students by students. The title and focus was “Let’s Talk About School.” The results of the student forum generated more support for a process that contemplates changed structures, organization and practices. As a senior educational leader in British Columbia, I continue to advocate with hope and optimism for system change and for system leaders to listen and act upon the advice of our students. I also support current work taking place at the grassroots school level, which seeks to make changes to address many of the comments reported by students in this study about how they feel that they learn best. As was indicated

through my interviews with students, the changes proposed were not particularly radical, they did however, suggest that the status quo is not acceptable.

5.10. Weaknesses of the Study

In reflecting on the potential weaknesses and further limitations of this study as reported in section 3.8, I have asked myself, “If I could have done things differently, what would I have changed?” I would certainly have reduced the scope of the study. This was a much larger undertaking than I had first realized. I think it would have been useful to collaborate on the project with one to two other graduate students interested in the same topic.

While my own biases are potential areas of weakness, I have declared my personal background and interest with regard to the focus of this study. My own views with respect to small schools versus large schools were described early in the study, and explored in a relatively minor way through the results of the survey and interviews. While I chose the largest and smallest school in the district for this study, I did not have an influence on the questions being asked on the survey and almost all students in the school district participated in the survey. With respect to school population size, I did not find a significant difference among the survey results. I controlled for my own bias through the interviews by asking similar questions of students attending both schools. Similarly, I was careful to not influence students’ perceptions of engagement as a result of my own views of student engagement in school. By interviewing a large number of students interviewed (121) spread over 21 groups, I was able to control for potential subject and interviewer biases.

The organization of this student-centred study was based upon an interpretation of the work of Vibert and Shields (2003) and McMahon and Portelli (2004) and further refined by Willms et al (2009).

My inclination would be to suggest that, in retrospect, I might have used a different survey or perhaps designed one to better fit the need. While the national WDYDIST survey has gained a lot of respect and attention in education circles across the country, it was a little challenging trying to use a survey where I had limited access to the raw data. I was in direct contact with several individuals associated with the WDYIST survey, including Dr. Doug Willms. All were extremely helpful. The survey was indirectly validated through the international and national work conducted by the principal authors of the survey, Dr. Willms and Dr. Patrick Flanagan. By extension, I determined that the national WDYDIST survey had sufficient validity to

serve the purposes of my study. However, it was difficult though to find articles pertaining to the construction and validation of this particular survey instrument. I also note that there were some anomalies in the wording used on the survey. For example the word "Language Arts" was used instead of the more commonly understood word "English" as a high school language parallel to the word "Math." Similarly, it might have been better to use scale options such as "Very challenging" to "Routine" to "Not very challenging or boring" versus using generic responses such as "Strongly agree" to "Strongly disagree." While this was not a focus of my study, there was a lack of correlation with academic and SES data available through the national study. Similarly, in terms of background information, very few questions in the demographic section of the survey or the main survey questioned students about their life experiences outside of school. This would have been interesting and possibly pertinent to the development of engagement at school. Survey questions did ask about part time jobs, volunteering, watching television, reading for pleasure and playing computer games. However, I chose to focus on what goes on in the classroom.

Students were recruited based on a school district decision to administer the survey to all students. From this census level participation, student volunteers were selected out of convenience by the school principals. I might have reduced the number of interview volunteers and changed the approach to be a more formalized, stratified sampling of the population. Given the amount of data collected, the study became somewhat unwieldy. While having both survey data and interview data, I was able to draw general conclusions based on a comparison of the evidence from the two methods. However, I believe that the interview data alone would have been sufficient for this study.

As acknowledged earlier in this report, I was a senior administrator in the school district and recognize that even though I did what I could to reduce this influence (including wearing less formal attire), I recognize that I could, even as the lone adult in the room, have had an impact on the student interviews. I did not let students know of my position in the school district, but the principal organizing the event might have indicated this to the students. Having an external interviewer such as a graduate student would have reduced this concern. I also felt that I had influence on the school administrators who assisted in coordinating the student recruitment and organizational aspects of the interviews. This concern was alleviated when I arrived one day and the principal had forgotten that I was going to be there (we rescheduled the visit).

The interviews were conducted with groups of students. This worked well, but I would have tightened up the groups to a minimum of 5 students and a maximum of 7. I would also have restricted my study to high school students in Grades 10 to 12. I found that videotaping the

students was interesting and provided a way to go back and review the data. However, in this study, the use of video camera and the subsequent digital record was not essential. If I had conducted a case study with a smaller group of students, perhaps at just one school, then I think the video material would have been more useful. I might have used video transcription software from the beginning. However, the data would have needed to be transcribed into the program along with time stamps.

I acknowledge that one of the cautions with the approach that I utilized in analyzing the interview data, is that my interactions with the text could have reflected my own interests, biases and subjectivity. In analyzing the interview data, I used a manual sorting process that enabled me to identify emergent themes and further sub-categorize these themes. Through this process, further described in chapter three, I was able to avoid 'cherry-picking' student responses. I reported the students' perceptions as they were offered in response to the interview questions and have attempted to avoid making wider inferences and ascribing causal relationships among topics and categories.

In Chapter 3, I described some of the barriers to doing qualitative research – one that is often indicated is a lack of external validity. This issue is concerned with whether representations and findings can be compared across groups. The results can perhaps be highly valid in the context of the study, but unreliable when being generalized to other settings. In this study, I was trying to generalize a particular set of results to the broader construct of *student engagement*. In returning to the question of reliability, I am confident that independent researchers would arrive at similar conclusions after analyzing the transcripts of this study. I am also confident that the procedures and processes used in this study, if repeated by independent researchers in the same or similar settings, would generate consistent findings. Understanding that the more dissimilar the context, the less likelihood there would be that the results and conclusions would be quite the same. However, students in other jurisdictions such as Singapore or Finland will still be variously engaged in school. I believe that the external conditions, the social milieu, interactions among staff and students, and the school and classroom climate, in general will determine the degree of engagement among students. While this remains to be determined through further study, I would anticipate that the responses of students attending high school in other jurisdictions to similar questions about engagement would be quite consistent with those reported in the study here - although, perhaps the degree to which students are variously engaged in school might differ.

5.11. Further Research

The central question of this study was to examine from students' perspectives what constitutes engagement in school. The research utilized data from the national WDYDIST survey and was followed by semi-structured group interviews with students from two high schools in an urban British Columbia school district. As a follow up to this study, several areas should be considered for further research. I did not pursue some interesting lines of investigation that emerged towards the end of my study. Different responses depending on gender were noted both in the students' responses to the survey and during the interviews. While demographics and background of the study could have been followed, this was not a focus for this investigation. Similarly, the achievement of students, SES and the relative level of engagement in school would have been another area worthy of investigation.

The WDYDIST survey did not gather information about the participants' academic achievement levels. Therefore, this study was not able to establish correlations between response patterns on the survey and participants' actual academic performances. This would be a useful further step in the research. It would also be useful to survey students who have dropped out of school in regard to their perceptions of the skill-challenge relationship in their school experiences.

Given that this research was restricted to only two high schools in one urban school district, the results must be taken cautiously and may not necessarily be generalized to other contexts. I suggest that more school-based studies in following up to the WDYDIST survey should be conducted across many jurisdictions (Willms et al., 2009). The results of the Fraserview School District survey aligned with and confirmed many of the indicators found at the national level. The student interviews that I conducted provided rich detail with respect to many of the categories referenced within the national WDYDIST survey. Students clearly demonstrated their concerns and areas of greatest engagement in schooling. The value of student voice in determining what works for learners is paramount. However, the knowledge base should be extended through further research with teachers, support staff, school administrators and parents. While the role of meaningful student voice in helping shape learning and engagement needs to be further researched and incorporated (Parsons & Taylor, 2011), the involvement of parents and the engagement of teachers should also be examined in the context of school improvement. I have participated in and am aware of many forums that were intended to consider teaching, learning and the nature of schooling. These have been conducted at provincial, district and school levels in the system with various constituent groups (administrators, teachers, parents and sometimes, students). The processes have been exciting and the results have confirmed the

need for change, however, little has been done to activate these outcomes and translate the findings into changed practices. Why is this so? Do we not know what to do? Are we reluctant to make the necessary changes? What are the barriers to system change? How do we accomplish such change? A crucial follow up to this study and the aforementioned concerns would be to explore these questions in more detail.

The WDYDIST survey should be repeated in many contexts over several years. For example, I would recommend that this survey be considered as an optional replacement for school districts to use instead of the British Columbia School Satisfaction Survey (British Columbia Ministry of Education, n.d.) for high school students. The resulting data sets, which are anonymous, are readily accessible in a short time frame after they are administered. Such student-focused surveys will prove invaluable to the educational community to ascertain the level of student engagement and to identify patterns and trends. Interviewing students provided rich and useful insight into their world of teaching and learning experiences. Providing more opportunities for meaningful interaction with students about their learning experiences would be a critically important step forward to understanding student engagement, and the challenges and opportunities with respect to schooling. Another useful consideration would be to build a student survey based on the results of in-depth interviews such as the ones that I conducted. This way, the survey might contain questions or items more representative of student perceptions rather than the academic or theoretical constructs contained in the national WDYDIST survey. In addition, further studies need to explore the linkage between the concept of flow and student engagement, including the relationship between the degree of skills and the level of intellectual challenge as described by Csikszentmihályi (1997), Shernoff (2002), and Shernoff et al. (2003).

An extension of this study, and perhaps a follow up with students who completed the WDYDIST survey, would be to explore engagement at the post secondary level—both from the perspective of success based on prior high school engagement and on engagement in learning at the post secondary level. It seems to me that while a segment of our youth population transitions to post secondary (probably due to parental and societal pressures), I wonder if the success (or dropout rates) rates, especially in the first few years of undergraduate work are acceptable. Some work has been done in this area (Bowlby, 2005; Human Resources and Skills Development Canada, 2011; OECD, 2006; Willms, 2003), but more localized studies would be useful.

Finally, the intriguing connection between student engagement and employee engagement should be explored. The intersection of the antecedents for engagement and the concept of flow within the realm of work and the world of the learner emerged during my reading of the literature. This presents an interesting and potentially fruitful area to explore given the

dynamic that exists between teachers as employees and students engaged in learning in the classroom setting. A useful starting point would be through the work of Harter et al. (2003), Kahn (1990), and Macey and Schneider (2008). Connected with these suggestions about employee engagement is the need to provide greater consideration to the social capital embodied within the profession of teachers. Any capacity for system change will not be achieved without raising the social capital of the professional educators within the system through greater support, collaboration, networking and opportunity.

5.12. Implications of the Study

This study came about as a result of many years of personal observations and perceptions about student engagement and the high school experiences of adolescent youth. Global, national and local indicators have demonstrated that while efforts have gone into improving educational practice, a growing number of students, especially boys, remain disillusioned with schooling. Some students may even drop out of school and fail to complete the requirements of high school graduation. This trend is even more pronounced and concerning for Aboriginal students across Canada. While the graduation rates have improved over the previous two decades, the high school completion rate seems to have reached a plateau at 80%. In particular, students with more vulnerable backgrounds, from rural communities, and especially Aboriginal students too often fail to achieve high school graduation.

Many students attend school for social reasons or simply participate in school to fulfil the necessary requirements and expectations of school, and either 'jump through the hoops' and just 'do school' in order to progress to the next stage in their lives. In either case, whether students are socially or academically engaged in school, consistent with the national results, the study's survey findings indicated that only about 50% of high school students attending the Fraserview School District who participated in the study reported being intellectually engaged in their schooling. This result gives cause to wonder whether high school in its present form appropriately meets the needs of the adolescent learner in contemporary society.

This study contributes to a growing knowledge base across Canada and internationally that views student engagement as a significant and necessary aspect of school life. Students who are less engaged might not graduate and might not go on to post-secondary education. Some might go on to seek post-secondary education with similar misguided or reasons. They might be minimally engaged in their studies and might even drop out of post secondary. Under these circumstances, students with lower educational credentials, with high school completion or

less, place greater social and financial burdens on society. It is incumbent on our society to explore why students, often boys, often from marginalized backgrounds, rural areas in Canada, and of Aboriginal ancestry do not connect with their schooling, may not be engaged in their learning, and as a result are less successful in their future endeavours. This lack of success may have a profound impact on individual success, quality of life and longer-term implications for Canadian society.

The study gave consideration to the school and classroom climate and to the ways in which students might be taught to ensure that they are more engaged in their learning and feel a sense of belonging, as valued, contributing and respected individuals within an educational community. The research findings should serve as a stimulus for more discussions about school policies and practices. It will further inform the decisions that are needed in order to make a difference for students through system redesign. The research reported here suggests that policy makers, school districts and schools should listen to what students say, include a broad range of experiences, provide sufficient and appropriate teacher training and resources for enhanced instruction and assessment, and develop a culture in which young adolescents feel that they 'belong' in school.

This study also contributes to research by offering a significant and somewhat unique perspective about engagement in school from the students' point of view – an area that is perhaps too often neglected in research. Student voice is of critical importance in understanding students' perspectives about their school experiences. Interviewing several groups of secondary students helped reveal the nature of student engagement and what factors should be taken into account to help build a greater sense of belonging and engagement in school. By listening to students' views, the research process identified a number of factors that can contribute to individuals becoming more engaged in their learning, feeling connected to school, having a greater sense of motivation, joy and enjoyment in school, and encounter that combination of high skill and high challenge so that school becomes a place and space where students can pursue their passions, meet intellectual challenges, and experience the excitement of deep engagement when learning is framed within a sense of flow.

5.13. Recommendations

The core question of this study was to examine—from students' perspectives—what constitutes engagement in school. Stated as a research question, this study asked: What do the student descriptions of their school experiences indicate about their perceived engagement with school and school-based learning experiences?

The study reported here has demonstrated that there are varying levels of engagement in school among young adolescents. It has revealed that individual students maybe more or less engaged in school for academic, social and intellectual reasons. However, it is not necessarily a bad thing for a student to be more socially or academically engaged in school although they are not intellectually engaged with their schooling. It is also hard to imagine a student not being at least partly engaged in all three of these dimensions. However, there are likely some students who attend school who are not particularly engaged in their learning on any dimension. It is unrealistic to expect that all students will be fully engaged in their learning. However, it can be considered a worthy goal to ensure that as many students as possible complete high school and move on to be productive, contributing, successful, and civil members of our society and to have enjoyed school and continue with a love for life-long learning. Some have argued that schooling is provided for the greater economic well-being of the country and the costs of not addressing problems of low engagement and even dropping out will cost our society in many ways. However, others claim that schooling is provided to educate and enculturate—to provide each individual with a socializing experience that serves both the self and the greater good. I believe students today are asking for an education system that enables long-term success and that also provides the interest, motivation and sense of belonging so necessary for them to become successful in the complex society in which we find ourselves.

In thinking beyond this study and considering next steps, I have developed the following list of eight broad recommendations for parents, teachers, administrators, and policy makers to consider. Each is intended to nurture and enhance student engagement. Such recommendations will require extensive system redesign.

1. Teachers should be valued and supported as the primary facilitators of student engagement in learning. There is a need to encourage teacher mentorships, apprenticeships, and professional development as a way to encourage greater support for instructional challenge.
2. There is a need to encourage and support technologically appropriate and rich teacher and learner development, innovation, and experimentation inside and outside the more typical learning environments of schools.

3. There should be collaboration between education authorities, school districts, administrators, teachers, and community partners on the development of competence, performance-based, multi-disciplinary curricula, rather than individual, subject and knowledge-based disciplinary studies.
4. Inclusive, socially and culturally rich, community-oriented, thematic, project-based, problem-based, and challenge-based learning environments and curricula should be promoted as core components of the educational experience.
5. There should be initiatives to create and share learning problems and projects that require investigative, creative, collaborative, multi-disciplinary approaches.
6. Policies should be developed and actions taken to create and share teaching and learning opportunities among students at various levels in the school system to allow them to work together on authentic, meaningful, relevant, socially, culturally and ethically valuable collaborative projects, problems and challenges.
7. Practices that provide students with opportunities to develop their individual talents and aspirations should be supported, sustained, and shared widely across the public education system.
8. Students should be involved in all aspects of their learning, from the design of learning environments and programs to assessment of and for learning.

5.14. Conclusion

Well I want to go to university and I wanna perhaps study medicine, do some research, but at this point it's not really clear what I want to do with my life. I just want to know like at the end, hopefully it's far away, but at the end that I've done something with it and I've done something good.

(Dominic, Grade 11)

The central question of this study was to examine from students' perspectives what constitutes engagement in school. The research utilized data from the national WDYDIST survey and was followed by semi-structured group interviews with students from two high schools in an urban British Columbia school district. The study did not delve into student characteristics and background such as family structures and socio-economic status, although gender and grade level was a consideration. Health and wellness outcomes including lifestyle behaviours, anxiety, depression and physical activity were also not considered in my study, although there were questions about these outcomes on the national WDYDIST survey. Similarly, academic achievement measures were not a focus of my research, although aspirations to graduate and pursue post-secondary education were of interest as motivators for eventual student success. The study primarily considered the school and classroom environment including dimensions such as teacher/student relationships, disciplinary climate, teacher expectations for success, the effective use of learning time, and the degree of instructional challenge. The study reported on three dimensions of student engagement from the students' perspectives. These are social engagement, including students' sense of belonging and participation in school, academic

engagement, and intellectual engagement. In Chapter 2, I described the valuable work of Csíkszentmihályi (1997) and his research into the theory of flow. I believe that this notion and the conditions necessary to develop a state of flow can be very useful in clarifying the extent to which students might become fully engaged in their learning through greater use of instructional challenges. A goal of personalized learning should be to achieve a balance between the level of individual student skills and the degree of instructional challenge that the student encounters so that students are able to be more deeply engaged, passionate, interested and feel successful in their learning—that is they are able to approach a state of flow (Csíkszentmihályi, 1997; Shernoff et al., 2003). Without this focus on instructional challenge and attention to creating a balance between challenge and skills leading to intellectual engagement, students may become bored, apathetic or anxious about their learning—perhaps they might even drop out. The social and economic implications of not attending to the problems of student disengagement from school are dire. System renewal is needed to avert the consequences associated with unrealized potential and missed opportunities resulting from students' lack of engagement in school.

By identifying and clarifying several key aspects of student engagement, it might be possible to increase opportunities for students and develop capacity and passion for engagement in learning and greater success. However, it is important to not lose sight of the purposes of schooling contemplated in earlier times by Aristotle (as cited in Broadie & Rowe, 2002), Dewey (1916), and more recently Goodlad (1984) in *A Place Called School* and through the concept of doing good work as it applies to schooling, described by Gardner et al. (2001) in *Good Work: When Excellence and Ethics Meet*. The democratizing, enculturating and socializing aspects of schooling, the teaching of critical, moral and ethical thinking and the attention to individual health and wellness are essential and many might say the most important aspects of school. Ideally, through a redesigned education system, we want our students to be able to reconstruct society, challenge current assumptions, and invent a renewed and better world for the future.

There are two lines of thought reported in Goodlad (1999) that have helped me rationalize the importance of student engagement in school. The first relates to Csíkszentmihályi's notion of the individual self as represented by the conditions of flow when people describe their state of being when the conscious is "harmoniously ordered, and they want to pursue whatever they are doing for its own sake" (as cited in Goodlad, 1999, p. 574). The second thought, described by John W. Gardner, refers to the contextual surroundings and the vitality of the individuals within—the ethos. In the "ever-renewing society what matures is a system or framework within which continuous motivation, renewal, and rebirth can occur...that must give due emphasis to both continuity and change in human institutions" (p. 574). In analyzing the language associated with school system renewal over reform efforts, Goodlad

suggested that, “renewal is a language of the self and reflects a supportive and caring ethos” (p. 574). On the contrary, the language of reform avoids “reference to the maturing of the self into greater wisdom, civility, civic-mindedness, democratic character, and participation in the whole of the human conversation” (Goodlad, 1999, p. 576). In making this claim, Goodlad cited Postman’s (1996) views in *The End of Education: Redefining the Value of School* and suggested that continued reform efforts following Gardner’s (1983) *A Nation at Risk: The imperative for educational reform* attended to the “god of economic utility” (p. 576) in ascribing such change initiatives to the need for economic contributions to society. On the other hand, Csíkszentmihályi (1997) has argued that education of the self is for the sheer pleasure of it, developed for its own sake and as a value in its own right rather than a necessary tool to serve workforce needs.

Through this complex and winding road, which I have taken and encouraged you, the reader, to follow, I hope that an outcome of positive renewal and redesign will be reached that will move our education system, not from good to great, but from excellent to exemplary... for every child. There is a clear and common message for us all—we must focus attention on truly engaging our students in their learning and redesign our system to meet their needs and not our own—these must concepts will remain at the core of our conversations. Our system must explore new approaches and enable the creative minds of our learners to flourish. Our system needs renewal and redesign—a quiet revolution. Let us not deny this life chance.

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Appendices

Appendix A.

Student WDYDIST Survey Questions: Original Order

Section 1: Survey

Please click the options that best describe how you feel.

In the past *month*, how often have you:

Never or Hardly ever; About once per a week; About 2 or 3 times a week; Every day or almost every day

- P1. Played sports WITH a coach or instructor AT SCHOOL, other than in a gym class (e.g., school teams, swimming lessons)?
- P2. Taken part in art, drama, or music groups; school clubs, such as a science, math or chess club, or a school committee, such as student council or the yearbook committee?

Never; Once or twice; 3 or 4 times; At least 5 times

- T1. Missed a day at school WITHOUT permission?
- T2. Cut or skipped a class WITHOUT permission?
- T3. Arrived late for school or classes?

During a typical weekday (i.e., Monday to Friday), about how much time do you spend after school doing each of the following activities?

None, or less than 10 minutes; Between 10 minutes and 30 minutes; Between 30 minutes and 1 hour; Between 1 and 2 hours; More than 2 hours, but less than 3 hours; More than 3 hours.

- HW1. Doing homework.
- ICT1. Using a computer for e-mailing, chatting, surfing the internet or playing games. (Please include time on video toys such as Gameboy)
- Read1. Reading books for fun?
- PA1. Doing a physical activity that increased your heart rate or made you out of breath some of the time (e.g., running, fast walking, biking, swimming, dancing, rollerblading, or playing a sport like hockey, soccer, or basketball).
- TV1. Watching TV?
- Work1. Working part-time for pay (e.g., baby-sitting, restaurant worker, salesperson).
- Vol1. Working as a volunteer (e.g., in a service agency, or with an arts or culture group).

***Please skip the following eight questions
if you are not taking a math class this term.***

We would like you to think about the math classes you have had over the past 2 weeks. Please indicate the extent to which you agree or disagree with each of the following statements.

Think carefully about whether you agree or disagree with each statement, because some are worded positively while others are worded negatively.

Strongly Disagree; Somewhat Disagree; Neither Agree nor Disagree; Somewhat Agree; Strongly Agree.

- CsiM1. I learn the concepts taught in class easily.
- EnjM1. I spend a lot of time daydreaming, socializing, or pretending to pay attention.
- CsiM2. I get bored in class because lessons are too easy.
- IntM1. I enjoy learning new concepts and ideas.
- RelM1. We explore ideas and topics that are meaningful.
- CsiM3. I do not do well in math tests.
- EnjM2. I enjoy our class projects so much that often I do not want to stop.
- CsiM4. Math classes are challenging.

***Please skip the following eight questions
if you are not taking a language arts class this term.***

We would like you to think about the language arts (e.g., English) classes you have had over the past two weeks. Please indicate the extent to which you agree or disagree with each of the following statements.

Think carefully about whether you agree or disagree with each statement, because some are worded positively while others are worded negatively.

Strongly Disagree; Somewhat Disagree; Neither Agree nor Disagree; Somewhat Agree; Strongly Agree

- CsiL1. I learn the concepts taught in class easily.
- EnjL1. I spend a lot of time daydreaming, socializing, or pretending to pay attention.
- CsiL2. I get bored in class because lessons are too easy.
- IntL1. I enjoy learning new concepts and ideas.
- RelL1. We explore ideas and topics that are meaningful.
- CsiL3. I do not do well in language arts tests.
- EnjL2. I enjoy our class projects so much that often I do not want to stop.
- CsiL4. Language arts classes are challenging.

***Please skip the following eight questions
if you are not taking a language arts class this term.***

We would like you to think about the language arts (e.g., English) classes you have had over the past two weeks. Please indicate the extent to which you agree or disagree with each of the following statements.

Think carefully about whether you agree or disagree with each statement, because some are worded positively while others are worded negatively.

Strongly Disagree; Somewhat Disagree; Neither Agree nor Disagree; Somewhat Agree; Strongly Agree

- IntL2. I wish we did not have to take language arts.
- RelL2. We cover topics that are useful in everyday life.
- CsiL5. I am among the top students in language arts.
- EnjL3. I enjoy language arts classes so much that I lose track of time.
- MotL3. I try hard to improve my skills in language arts.
- IntL3. I find myself thinking about what we are learning even after the lesson is over.
- RelL3. I know the purpose of what we are learning.
- CsiL6. We deal with difficult material in language arts classes.

***Please skip the following eight questions
if you are not taking a math class this term.***

We would like you to think about the math classes you have had over the past two weeks. Please indicate the extent to which you agree or disagree with each of the following statements.

Think carefully about whether you agree or disagree with each statement, because some are worded positively while others are worded negatively.

Strongly Disagree; Somewhat Disagree; Neither Agree nor Disagree; Somewhat Agree; Strongly Agree

- IntM2. I wish we did not have to take math.
- RelM2. We cover topics that are useful in everyday life.
- CsiM5. I am among the top students in Math.
- EnjM3. I enjoy math classes so much that I lose track of time.
- MotM3. I try hard to improve my skills in mathematics.
- IntM3. I find myself thinking about what we are learning even after the lesson is over.
- RelM3. I know the purpose of what we are learning.
- CsiM6. We deal with difficult material in math classes.

We would like to know how you think and feel about certain things. For each statement below, please tell us how often you feel this way.

Never or Hardly ever; About once per a week; About 2 or 3 times a week; Every day or almost every day

- ANX1. I am concerned about what other students think about me.
- DEP1. I feel sad or depressed.
- ANX2. I am too fearful or nervous.
- DEP2. A lot of things seem to bother me.
- ANX3. I worry about people laughing at me.
- DEP3. I feel lonely.
- ANX5. I worry about a teacher asking me a question.
- DEP5. I cry without a good reason.
- ANX6. I worry more than most kids.
- DEP6. Other students seem to have more fun than me.
- ANX7. I am afraid that other students will think I am stupid.
- DEP7. I have trouble falling asleep at night.

***Please skip the following six questions
if you are not taking a math class this term.***

We want you to think about the math classes you have had over the past two weeks. How often did these things happen in your math classes?

Never or hardly ever; Sometimes (in some, but not all classes); Often (in most classes); Very often (in almost every class).

- ChM1. We memorize definitions and rules.
- ChM2. We interpret graphs or charts.
- ChM3. We apply math concepts to real-world problems.
- ChM4. We examine the ideas underlying math concepts.
- ChM5. We look at different ways of solving a problem.
- ChM6. We create problems that require the use of the concepts we have learned.

***Please skip the following six questions
if you are not taking a language arts class this term.***

We want you to think about the language arts (e.g., English) classes you have had over the past two weeks.

How often do these things happen in your language arts (e.g., English) classes:

Never or hardly ever; Sometimes (in some, but not all classes); Often (in most classes); Very often (in almost every class)

- ChL1. We gather information about an author's life.
- ChL2. We explain the meaning of a poem or story.
- ChL3. We read literature that is interesting to students our age.
- ChL4. We analyze the writing strategy used by an author.
- ChL5. We critically evaluate an author's work.
- ChL6. We learn how to develop an essay or story that has several parts.

***Please skip the following six questions
if you are not taking a math class this term.***

We want you to think about the math classes you have had over the past two weeks. How often did these things happen in your math classes?

Never or hardly ever; Sometimes (in some, but not all classes); Often (in most classes); Very often (in almost every class).

- ChM7. We use worksheets to practice basic facts.
- ChM8. We explain important math concepts.
- ChM9. We solve word problems.
- ChM10. We learn the value of math concepts in science and industry.
- ChM11. We think about the approach that we used to solve a math problem.
- ChM12. We work on problems that require us to use 2 or more different concepts.

***Please skip the following six questions
if you are not taking a language arts class this term.***

We want you to think about the language arts classes you have had over the past two weeks. How often did these things happen in your language arts classes?

Never or hardly ever; Sometimes (in some, but not all classes); Often (in most classes); Very often (in almost every class).

- ChL7. We recognize rules of grammar or parts of speech (e.g., nouns, verbs, adjectives).
- ChL8. We interpret the meaning of a written work.
- ChL9. We use new writing techniques.
- ChL10. We identify techniques used by an author.

ChL11. We look at writing with attention to how we constructed sentences and paragraphs.

ChL12. We write an essay or story of at least 2 pages.

Please indicate how much you agree with each of the following statements:

Strongly Disagree; Somewhat Disagree; Neither Agree nor Disagree; Somewhat Agree; Strongly Agree

- B1. I feel included in school activities.
- B2. I get along well with others at school.
- B3. I am able to make friends easily.
- B4. At school I feel accepted for who I am.
- B5. School is a place where I feel like I belong.
- B6. Generally, I feel accepted by other kids my age.

Please indicate how much you agree with each of the following statements:

Strongly Disagree; Somewhat Disagree; Neither Agree nor Disagree; Somewhat Agree; Strongly Agree

- A1. I plan to finish high school.
- A2. After high school, I plan to pursue a trade or apprenticeship program.
- A3. After high school, I plan to go to a college or university.

In our school...

Strongly Disagree; Somewhat Disagree; Neither Agree nor Disagree; Somewhat Agree; Strongly Agree

- ELT1. Teachers are good at explaining difficult concepts.
- TSR1. Teachers treat us fairly.
- DIS1. Teachers expect students to pay attention.
- SUC1. Students must work hard to succeed.
- ELT2. Teachers use our class time to help us learn.
- TSR2. Teachers praise us when we have done well.
- DIS2. Classes tend to be quiet.
- SUC2. Teachers encourage students to do better.
- ELT3. Class lessons are well organized.
- TSR3. Teachers get along well with students.
- DIS3. It is usually easy to concentrate in class.
- SUC3. Teachers expect homework to be done on time.
- ELT4. Teachers help us understand important concepts.
- TSR4. Teachers show an interest in every student's learning.
- DIS4. Teachers maintain control of the class.

- SUC4. Students are clear about what is expected of them for their courses.
- ELT5. Important concepts and ideas are taught well.
- TSR5. Teachers take account of students' needs, abilities, and interests.
- DIS5. Teachers do not let students get away with much fooling around.
- SUC5. Teachers expect us to work hard.
- ELT6. Responses to students' questions are clear.
- TSR6. Teachers do a lot to help students who need extra support.
- DIS6. The rules for classroom behaviour are clear.
- SUC6. Teachers expect all students to do their best work.
- ELT7. Teachers quickly give students specific feedback on their work.

We want to know about whether you smoke cigarettes, or use other tobacco products such as cigars, pipes, snuff, and chewing tobacco.

Please consider each of the categories below and tell us which one best describes your experience: Choose only one.

- SM1a. I have never tried smoking, not even a few puffs, and probably never will.
- SM1b. I have never tried smoking, but I might try it at some day.
- SM1c. I have tried smoking, but only once or twice.
- SM1d. I used to smoke regularly, but I have not smoked a cigarette in the past 30 days.
- SM1e. I occasionally smoke, but not every day.
- SM1f. I usually smoke at least one cigarette every day.

Appendix B.

Student WDYDIST Survey Questions: Organized by Categories

| Code | Survey Question | Factor |
|--------|---|--|
| B1. | I feel included in school activities. | Belonging |
| B2. | I get along well with others at school. | Belonging |
| B3. | I am able to make friends easily. | Belonging |
| B4. | At school I feel accepted for who I am. | Belonging |
| B5. | School is a place where I feel like I belong. | Belonging |
| B6. | Generally, I feel accepted by other kids my age. | Belonging |
| P1. | Played sports WITH a coach or instructor AT SCHOOL, other than in a gym class (e.g., school teams, swimming lessons)? | Participation sports |
| P2. | Taken part in art, drama, or music groups; school clubs, such as a science, math or chess club, or a school committee, such as student council or the yearbook committee? | Participation fine arts, clubs, committees |
| ReIL1. | We explore ideas and topics that are meaningful. | Relevancy, literacy |
| ReIL2. | We cover topics that are useful in everyday life. | Relevancy, literacy |
| ReIL3. | I know the purpose of what we are learning. | Relevancy, literacy |
| ReIM1. | We explore ideas and topics that are meaningful. | Relevancy, math |
| ReIM2. | We cover topics that are useful in everyday life. | Relevancy, math |
| ReIM3. | I know the purpose of what we are learning. | Relevancy, math |
| EnjL1. | I spend a lot of time daydreaming, socializing, or pretending to pay attention. | Enjoy learning literacy |
| EnjL2. | I enjoy our class projects so much that often I do not want to stop. | Enjoy learning literacy |
| EnjL3. | I enjoy language arts classes so much that I lose track of time. | Enjoy learning literacy |
| EnjM1. | I spend a lot of time daydreaming, socializing, or pretending to pay attention. | Enjoy learning math |
| EnjM2. | I enjoy our class projects so much that often I do not want to stop. | Enjoy learning math |
| EnjM3. | I enjoy math classes so much that I lose track of time. | Enjoy learning math |

| Code | Survey Question | Factor |
|-------------|--|-------------------------------|
| IntL1. | I enjoy learning new concepts and ideas. | Interest in literacy |
| IntL2. | I wish we did not have to take language arts. | Interest in literacy |
| IntL3. | I find myself thinking about what we are learning even after the lesson is over. | Interest in literacy |
| IntM1. | I enjoy learning new concepts and ideas. | Interest in math |
| IntM2. | I wish we did not have to take math. | Interest in math |
| IntM3. | I find myself thinking about what we are learning even after the lesson is over. | Interest in math |
| MotL3. | I try hard to improve my skills in language arts. | Motivation, literacy |
| MotM3. | I try hard to improve my skills in mathematics. | Motivation, math |
| TSR1. | Teachers treat us fairly. | Teacher-student relations |
| TSR2. | Teachers praise us when we have done well. | Teacher-student relations |
| TSR3. | Teachers get along well with students. | Teacher-student relations |
| TSR4. | Teachers show an interest in every student's learning. | Teacher-student relations |
| TSR5. | Teachers take account of students' needs, abilities, and interests. | Teacher-student relations |
| TSR6. | Teachers do a lot to help students who need extra support. | Teacher-student relations |
| DIS1. | Teachers expect students to pay attention. | Disciplinary environment |
| DIS2. | Classes tend to be quiet. | Disciplinary environment |
| DIS3. | It is usually easy to concentrate in class. | Disciplinary environment |
| DIS4. | Teachers maintain control of the class. | Disciplinary environment |
| DIS5. | Teachers do not let students get away with much fooling around. | Disciplinary environment |
| DIS6. | The rules for classroom behaviour are clear. | Disciplinary environment |
| SUC1. | Students must work hard to succeed. | Teacher expectations, Succeed |
| SUC2. | Teachers encourage students to do better. | Teacher expectations, Succeed |

| Code | Survey Question | Factor |
|-------------|--|-------------------------------|
| SUC3. | Teachers expect homework to be done on time. | Teacher expectations, Succeed |
| SUC4. | Students are clear about what is expected of them for their courses. | Teacher expectations, Succeed |
| SUC5. | Teachers expect us to work hard. | Teacher expectations, Succeed |
| SUC6. | Teachers expect all students to do their best work. | Teacher expectations, Succeed |
| ELT1. | Teachers are good at explaining difficult concepts. | Effective learning time |
| ELT2. | Teachers use our class time to help us learn. | Effective learning time |
| ELT3. | Class lessons are well organized. | Effective learning time |
| ELT4. | Teachers help us understand important concepts. | Effective learning time |
| ELT5. | Important concepts and ideas are taught well. | Effective learning time |
| ELT6. | Responses to students' questions are clear. | Effective learning time |
| ELT7. | Teachers quickly give students specific feedback on their work. | Effective learning time |
| ChL1. | We gather information about an author's life. | Challenge Literacy |
| ChL2. | We explain the meaning of a poem or story. | Challenge Literacy |
| ChL3. | We read literature that is interesting to students our age. | Challenge Literacy |
| ChL4. | We analyze the writing strategy used by an author. | Challenge Literacy |
| ChL5. | We critically evaluate an author's work. | Challenge Literacy |
| ChL6. | We learn how to develop an essay or story that has several parts. | Challenge Literacy |
| ChL7. | We recognize rules of grammar or parts of speech (e.g., nouns, verbs, adjectives). | Challenge Literacy |
| ChL8. | We interpret the meaning of a written work. | Challenge Literacy |
| ChL9. | We use new writing techniques. | Challenge Literacy |

| Code | Survey Question | Factor |
|-------------|---|--------------------|
| ChL10. | We identify techniques used by an author. | Challenge Literacy |
| ChL11. | We look at writing with attention to how we constructed sentences and paragraphs. | Challenge Literacy |
| ChL12. | We write an essay or story of at least 2 pages. | Challenge Literacy |
| ChM1. | We memorize definitions and rules. | Challenge Math |
| ChM2. | We interpret graphs or charts. | Challenge Math |
| ChM3. | We apply math concepts to real-world problems. | Challenge Math |
| ChM4. | We examine the ideas underlying math concepts. | Challenge Math |
| ChM5. | We look at different ways of solving a problem. | Challenge Math |
| ChM6. | We create problems that require the use of the concepts we have learned. | Challenge Math |
| ChM7. | We use worksheets to practice basic facts. | Challenge Math |
| ChM8. | We explain important math concepts. | Challenge Math |
| ChM9. | We solve word problems. | Challenge Math |
| ChM10. | We learn the value of math concepts in science and industry. | Challenge Math |
| ChM11. | We think about the approach that we used to solve a math problem. | Challenge Math |
| ChM12. | We work on problems that require us to use 2 or more different concepts. | Challenge Math |
| CsiL1. | I learn the concepts taught in class easily. | Flow Literacy |
| CsiL2. | I get bored in class because lessons are too easy. | Flow Literacy |
| CsiL3. | I do not do well in language arts tests. | Flow Literacy |
| CsiL4. | Language arts classes are challenging. | Flow Literacy |
| CsiL5. | I am among the top students in language arts. | Flow Literacy |
| CsiL6. | We deal with difficult material in language arts classes. | Flow Literacy |
| CsiM1. | I learn the concepts taught in class easily. | Flow Math |
| CsiM2. | I get bored in class because lessons are too easy. | Flow Math |
| CsiM3. | I do not do well in math tests. | Flow Math |
| CsiM4. | Math classes are challenging. | Flow Math |
| CsiM5. | I am among the top students in Math. | Flow Math |
| CsiM6. | We deal with difficult material in math classes. | Flow Math |
| A1. | I plan to finish high school. | Aspirations |
| A2. | After high school, I plan to pursue a trade or apprenticeship program. | Aspirations |
| A3. | After high school, I plan to go to a college or university. | Aspirations |

| Code | Survey Question | Factor |
|-------------|---|-------------------|
| ICT1. | Using a computer for e-mailing, chatting, surfing the Internet or playing games. (Please include time on video toys such as Gameboy) | Using computers |
| Read1. | Reading books for fun? | Reading |
| HW1. | Doing homework. | Doing homework |
| TV1. | Watching TV? | Watch TV |
| Vol1. | Working as a volunteer (e.g., in a service agency, or with an arts or culture group). | Volunteer |
| Work1. | Working part-time for pay (e.g., baby-sitting, restaurant worker, salesperson). | Part-time work |
| PA1. | Doing a physical activity that increased your heart rate or made you out of breath some of the time (e.g., running, fast walking, biking, swimming, dancing, rollerblading, or playing a sport like hockey, soccer, or basketball). | Physical activity |
| T1. | Missed a day at school WITHOUT permission? | Truancy |
| T2. | Cut or skipped a class WITHOUT permission? | Truancy |
| T3. | Arrived late for school or classes? | Truancy |
| ANX1. | I am concerned about what other students think about me. | Anxiety |
| ANX2. | I am too fearful or nervous. | Anxiety |
| ANX3. | I worry about people laughing at me. | Anxiety |
| ANX5. | I worry about a teacher asking me a question. | Anxiety |
| ANX6. | I worry more than most kids. | Anxiety |
| ANX7. | I am afraid that other students will think I am stupid. | Anxiety |
| DEP1. | I feel sad or depressed. | Depressed |
| DEP2. | A lot of things seem to bother me. | Depressed |
| DEP3. | I feel lonely. | Depressed |
| DEP5. | I cry without a good reason. | Depressed |
| DEP6. | Other students seem to have more fun than me. | Depressed |
| DEP7. | I have trouble falling asleep at night. | Depressed |
| SM1a. | I have never tried smoking, not even a few puffs, and probably never will. | Smoking |
| SM1b. | I have never tried smoking, but I might try it at some day. | Smoking |
| SM1c. | I have tried smoking, but only once or twice. | Smoking |
| SM1d. | I used to smoke regularly, but I have not smoked a cigarette in the past 30 days. | Smoking |
| SM1e. | I occasionally smoke, but not every day. | Smoking |
| SM1f. | I usually smoke at least one cigarette every day. | Smoking |

Appendix C.

Interview Questions

Reminder that names of students, teachers, school will be kept confidential.

Reminder of the purpose of the study, voluntary nature of participation, and option to opt out at any time.

Introduce yourselves (first name only), grade ...

What are students' views of when they learn best?

- What is your favourite subject area? Why?
- When do you learn best? Why?
- What do you consider to have been your best learning experience? Can you describe where and when it happened? Why do you remember this particular learning experience?
- When do you enjoy school? Why?
- Do you like to learn? When?
- Tell me about teachers who have made a difference and why (no names please)

Under what conditions are students engaged in school?

- What does it mean to be engaged in your learning? (social, academic, intellectual)
- Are you being (instructionally) challenged in your learning? How?
- Do you ever experience being in the zone (a state of flow, explained)

Why do some students feel connected to school and others do not?

- Do you feel connected to school?
- When are you more connected with your learning?
- What holds you back from learning? Why?

What meanings do students have regarding the purposes, requirements, and importance of school?

- Is school important? Why?
- What does school mean to you?
- Do you use technology? How?
- Do you use social media (Facebook, Twitter, other)?
- What is one word, which describes schooling now?
- What is one word to describe schooling for the future?
- What are some of the things you really like about your school, or things that would make it even better?
- If you could wave a magic wand, what would school be like for you?

What are students' perspectives about success and their futures?

- What is success? How do you know when you are being successful?
- Do marks matter? Why?
- What do you value most about high school? What will you miss when you leave high school?
- What do you plan to do when you complete high school? What are your aspirations, dreams... hopes?

What are students' views about the influence of school population size on their engagement?

- Does school size influence the development of student engagement?
- Does school population size matter?
- What are some good and bad things of being in a smaller/larger school?

Appendix D.

Student Pseudonyms and Reference Codes

In reporting specific comments by students, actual student names were not used. Pseudonyms and coded identifications were used for all participants and locations of the study. As well, any identities of staff mentioned in the study were masked. All transcripts eliminated references to names of students replacing each individual with a pseudonym and coded reference identification following the 'id' groupings as shown in the following tables.

Table D1. Explanation of the coding system used for each student in the group interviews.

| Example of student coding with pseudonyms | Group id number | School* | Grade | Gender | Individual in the group e.g. #2 of 4 students |
|---|-----------------|---------|-------|--------|---|
| Cassandra, 4sm11F2 | 4 | sm | 11 | F | 2 |
| Jerry, 6gr10M3 | 6 | gr | 10 | M | 3 |

Note. * sm = Smallville and gr = Grand-River.

Table D2. The coding system used for each student in the group interviews.

| Pseudonym | Grand-River | Pseudonym | Smallville |
|-----------|-------------|-----------|------------|
| Amanda | 1gr08F1 | Savannah | 1sm12F1 |
| Angela | 1gr08F2 | Ann | 1sm11F2 |
| Cheyenne | 1gr08F3 | Kathy | 1sm11F3 |
| Gilbert | 1gr08M1 | Joe | 1sm11M1 |
| Travis | 1gr08M2 | Ben | 1sm11M2 |
| Roderick | 1gr08M3 | Carlos | 1sm11M3 |
| Jamie | 1gr08M4 | Ethan | 1sm11M4 |
| Lou | 1gr08M5 | Parmvir | 1sm11M5 |
| Mercedes | 2gr08F1 | Karla | 2sm10F1 |
| Alicia | 2gr08F2 | Kirsten | 2sm10F2 |
| Suki | 2gr08F3 | Mannu | 2sm10F3 |
| Surinder | 2gr08F4 | Balwant | 2sm10M1 |
| Julio | 2gr08M1 | Jonah | 2sm10M2 |
| Cory | 2gr08M2 | Ryan | 2sm10M3 |
| Brendan | 2gr08M3 | Sukh | 2sm10M4 |
| Jose | 2gr08M4 | Peter | 2sm10M5 |

| Pseudonym | Grand-River | Pseudonym | Smallville |
|------------------|--------------------|------------------|-------------------|
| Emma | 3gr08F1 | Tejbir | 2sm10M6 |
| Crystal | 3gr08F2 | Sammi | 3sm09F1 |
| Charlene | 3gr08F3 | Anita | 3sm09F2 |
| Leah | 3gr08F4 | Michael | 3sm09M1 |
| Larissa | 3gr08F5 | Charles | 3sm09M2 |
| Dalton | 3gr08M1 | David | 3sm09M3 |
| Kyle | 3gr08M2 | Shayne | 3sm09M4 |
| Nathan | 3gr08M3 | Justin | 3sm09M5 |
| Sheldon | 3gr08M4 | Theo | 3sm09M6 |
| Lili | 4gr09F1 | Jessica | 4sm11F1 |
| Tamika | 4gr09F2 | Cassandra | 4sm11F2 |
| Alex | 4gr09M1 | Dalila | 4sm11F3 |
| Pius | 4gr09M2 | Shai | 4sm10F4 |
| Myriam | 4gr09M3 | Jackie | 4sm11F5 |
| Eric | 5gr09M1 | Brent | 4sm11M1 |
| Adam | 5gr09M2 | Ian | 4sm11M2 |
| Nick | 5gr09M3 | Chris | 4sm12M3 |
| Pamela | 6gr10F1 | Amrit | 5sm11F1 |
| Christine | 6gr10F2 | Amber | 5sm11F2 |
| Marissa | 6gr10F3 | Makayla | 5sm11F3 |
| Yen | 6gr10F4 | Jesse | 5sm11F4 |
| Elliott | 6gr10M1 | Dana | 5sm11M1 |
| Leo | 6gr10M2 | Simon | 5sm11M2 |
| Jerry | 6gr10M3 | Anthony | 5sm11M3 |
| Jordan | 6gr10M4 | Lacey | 6sm09F1 |
| Troy | 6gr10M5 | Deanna | 6sm09F2 |
| Laura | 7gr10F1 | Kelli | 6sm09F3 |
| Melanie | 7gr10F2 | Sally | 6sm09F4 |
| Michelle | 7gr10F3 | Dianne | 6sm09F5 |
| Alexis | 7gr10F4 | Kai | 6sm09M1 |
| Brenda | 7gr10F5 | John | 6sm09M2 |
| Jasmine | 7gr10F6 | Ashley | 7sm12F1 |
| Santana | 7gr10M1 | Carly | 7sm12F2 |

| Pseudonym | Grand-River | Pseudonym | Smallville |
|------------------|--------------------|------------------|-------------------|
| Hasina | 8gr11F1 | Cindi | 7sm12F3 |
| Tahsina | 8gr11F2 | Maryann | 7sm12F4 |
| Sean | 8gr11M1 | Shannon | 7sm12F5 |
| Matt | 8gr11M2 | MacKenzie | 7sm12F6 |
| Lyndsay | 9gr11F1 | Dylan | 7sm12M1 |
| Marsha | 9gr11F2 | George | 7sm12M2 |
| Levi | 9gr11M1 | Melody | 8sm12F1 |
| Neil | 9gr11M2 | Sasha | 8sm12F2 |
| Gabe | 9gr11M3 | Brandi | 8sm12F3 |
| Max | 9gr11M4 | Jennifer | 8sm12F4 |
| Joanna | 10gr12F1 | Zane | 8sm12M1 |
| Olivia | 10gr12F2 | Jean | 8sm12M2 |
| Julia | 10gr12F3 | Bruce | 8sm12M3 |
| Gurdeep | 10gr12M1 | Darius | 8sm12M4 |
| Ivan | 10gr12M2 | Stephanie | 9sm12F1 |
| Ingrid | 11gr12F1 | Natalie | 9sm12F2 |
| Heather | 11gr12F2 | Sarah | 9sm12F3 |
| Aaron | 11gr12M1 | Zach | 9sm12M1 |
| Derek | 11gr12M2 | Will | 9sm12M2 |
| Allison | 12gr12F1 | | |
| Don | 12gr12M1 | | |
| Andrew | 12gr12M2 | | |
| Arman | 12gr12M3 | | |
| Jim | 12gr12M4 | | |

Appendix E.

Student WDYDIST Survey: Results by Gender

| | Canada <i>n=32,322</i> | District <i>n=5,217</i> | Smallville <i>n=461</i> | Grand-River <i>n=1,176</i> |
|--|----------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|
| Students rating out of 10 having experienced a positive sense of belonging | | | | |
| All students | 7.9 | 7.7 | 7.5 | 7.6 |
| Female | 7.8 | 6.8 | 8.1 | 7.2 |
| Male | 8.1 | 7.9 | 8.7 | 8.3 |
| Percentage of students who played in coached school sports | | | | |
| All students | 42 | 43 | 49 | 41 |
| Female | 37 | 35 | 39 | 36 |
| Male | 47 | 51 | 57 | 46 |
| Percentage of students who took part in sponsored clubs/committees | | | | |
| All students | 38 | 40 | 48 | 40 |
| Female | 45 | 47 | 59 | 46 |
| Male | 31 | 33 | 39 | 34 |
| Proportion out of 10 that students rated being intellectually engaged | | | | |
| All students | 4.9 | 4.9 | 5.2 | 4.6 |
| Female | 5.0 | 5.0 | 5.5 | 4.7 |
| Male | 4.7 | 4.7 | 5.0 | 4.4 |
| Proportion out of 10 that students rated having experienced positive teacher-student relations | | | | |
| All students | 6.2 | 6.1 | 6.8 | 6.1 |
| Female | 6.2 | 6.3 | 7.1 | 6.2 |
| Male | 6.1 | 6.0 | 6.5 | 6.0 |
| Proportion out of 10 that students rated having experienced a positive disciplinary climate | | | | |
| All students | 6.0 | 6.2 | 6.7 | 6.1 |
| Female | 6.0 | 6.4 | 6.9 | 6.3 |
| Male | 6.1 | 6.1 | 6.5 | 5.9 |

| | Canada <i>n=32,322</i> | District <i>n=5,217</i> | Smallville <i>n=461</i> | Grand-River <i>n=1,176</i> |
|---|----------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|
| Proportion out of 10 that students rated having experienced high teacher expectations for student success | | | | |
| All students | 7.4 | 7.6 | 8.0 | 7.4 |
| Female | 7.7 | 7.8 | 8.2 | 7.8 |
| Male | 7.2 | 7.3 | 7.8 | 7.1 |
| Proportion out of 10 that students rated having experienced effective use of classroom learning time | | | | |
| All students | 6.5 | 6.5 | 7.1 | 6.5 |
| Female | 6.6 | 6.7 | 7.3 | 6.6 |
| Male | 6.4 | 6.4 | 6.9 | 6.4 |
| Percentage of students who experienced instructional challenge (flow) | | | | |
| High Challenge, High Skills | 43 | 46 | 48 | 47 |
| High Challenge, Low Skills | 24 | 26 | 22 | 29 |
| Low Challenge, High Skills | 27 | 24 | 26 | 20 |
| Low Challenge, Low Skills | 6 | 4 | 4 | 4 |
| Percentage of students who were planning to graduate | | | | |
| All students | 91 | 94 | 96 | 93 |
| Female | 94 | 96 | 97 | 95 |
| Male | 89 | 92 | 95 | 90 |
| Percentage of students who were planning to pursue a trade or apprenticeship | | | | |
| All students | 21 | 19 | 22 | 17 |
| Female | 16 | 14 | 16 | 9 |
| Male | 26 | 23 | 27 | 24 |
| Percentage of students who were planning to go to college or university | | | | |
| All students | 68 | 74 | 74 | 69 |
| Female | 77 | 82 | 85 | 78 |
| Male | 59 | 67 | 64 | 60 |

Data for other Questions Summarized by Gender that Were Not Considered in this Study:

| | Canada <i>n=32,322</i> | District <i>n=5,217</i> | Smallville <i>n=461</i> | Grand-River <i>n=1,176</i> |
|----------------|----------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|
| Truancy (%) | | | | |
| All students | 37 | 28 | 19 | 29 |
| Female | 34 | 27 | 19 | 24 |
| Male | 40 | 29 | 20 | 33 |
| Depression (%) | | | | |
| All students | 17 | 10 | 9 | 10 |
| Female | 21 | 11 | 12 | 12 |
| Male | 12 | 8 | 7 | 8 |
| Anxiety (%) | | | | |
| All students | 22 | 17 | 15 | 17 |
| Female | 27 | 19 | 18 | 20 |
| Male | 16 | 14 | 13 | 15 |
| Smoking (%) | | | | |
| All students | 16 | 10 | 9 | 12 |
| Female | 15 | 8 | 8 | 9 |
| Male | 17 | 12 | 10 | 14 |

Time spent after school doing each of the following activities:

| | Canada <i>n=32,322</i> | District <i>n=5,217</i> | Smallville <i>n=461</i> | Grand-River <i>n=1,176</i> |
|--|----------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|
| Hours/day on Homework | | | | |
| All students | 0.9 | 1.1 | 1.1 | 1.1 |
| Female | 1.1 | 1.3 | 1.3 | 1.3 |
| Male | 0.8 | 0.9 | 0.9 | 0.9 |
| Hrs/day reading for leisure | | | | |
| All students | 0.7 | 0.7 | 0.6 | 0.6 |
| Female | 0.9 | 0.8 | 0.8 | 0.8 |
| Male | 0.5 | 0.5 | 0.5 | 0.4 |
| Hours/day watching TV | | | | |
| All students | 1.4 | 1.3 | 1.2 | 1.4 |
| Female | 1.4 | 1.3 | 1.2 | 1.3 |
| Male | 1.5 | 1.4 | 1.3 | 1.4 |
| Hours/day playing Computers/Video Games | | | | |
| All students | 1.8 | 1.7 | 1.6 | 1.8 |
| Female | 1.7 | 1.6 | 1.7 | 1.7 |
| Male | 1.9 | 1.8 | 1.6 | 1.8 |
| Hours/day on Part-time job | | | | |
| All students | 1.3 | 1.0 | 0.8 | 1.3 |
| Female | 1.5 | 1.2 | 1.1 | 1.3 |
| Male | 1.2 | 0.9 | 0.7 | 1.2 |
| Volunteer hours/day | | | | |
| All students | 0.4 | 0.4 | 0.4 | 0.4 |
| Female | 0.5 | 0.5 | 0.5 | 0.5 |
| Male | 0.4 | 0.3 | 0.3 | 0.3 |
| Hours/day physical activity | | | | |
| All students | 1.5 | 1.7 | 1.6 | 1.7 |
| Female | 1.4 | 1.5 | 1.4 | 1.7 |
| Male | 1.7 | 1.8 | 1.7 | 1.7 |

Appendix F.

t-Test Comparing the Sample Means

Question

Do the means on various measures for Smallville and Grand-River Secondary School WDYDIST survey results differ significantly?

The null hypothesis states that the two populations really are the same and that the observed discrepancy between sample means is largely due to chance. The null hypothesis states that there is no difference between the two populations. Using that term, one can define the p -value to be the probability of observing a difference as large or larger than observed if the null hypothesis were true (Motulsky, 1999; Salkind, 2004).

H0: $U_1=U_2$ Null hypothesis. H1: $X_1 \neq X_2$ Research hypothesis.

This is an independent, unpaired 2-tailed test, testing whether or not the means are different where either one or the other of the two populations might be the larger one if they are different.

Table F1. Unpaired 2-tailed t-Test Results Comparing the Means of Data for Smallville and Grand-River Secondary Schools Surveyed on Various Factors

| | Population 1 Smallville | Population 2 Grand-River |
|-----------------------------------|----------------------------|-----------------------------|
| Sense of belonging | 0.81 | 0.74 |
| Participation in sports | 0.49 | 0.41 |
| Participation in clubs | 0.48 | 0.40 |
| High Challenge, High Skills | 0.48 | 0.47 |
| High Challenge, Low Skills | 0.22 | 0.29 |
| Low Challenge, High Skills | 0.26 | 0.20 |
| Low Challenge, Low Skills | 0.04 | 0.04 |
| Teacher-student relations | 0.68 | 0.61 |
| Disciplinary climate | 0.67 | 0.61 |
| Teacher expectations success | 0.80 | 0.74 |
| Learning time | 0.71 | 0.65 |
| Intellectual Engagement | 0.52 | 0.46 |
| Aspirations, High School | 0.96 | 0.93 |
| Aspirations, Trade/Apprenticeship | 0.22 | 0.17 |
| Aspirations, University/College | 0.74 | 0.69 |

Note. Data summarized from the WDYDIST survey (2009).
CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Table F2. Unpaired 2-tailed t-Test Results Comparing the Means of Data for Smallville and Grand-River Secondary Schools Surveyed on Various Factors

| N | 15 | 15 |
|---|-----------|---------------------|
| Mean (\bar{X}) | 0.53867 | 0.49400 |
| Difference of Means ($\bar{X}_2 - \bar{X}_1$) | -0.044667 | |
| Standard Deviation | 0.263 | 0.247 |
| Unequal variances (S^2) | 0.06897 | 0.06125 |
| ($S_1^2 + S_2^2$) | | 0.13022 |
| Degrees of freedom: (2N-2) | | 28 |
| 95% Confidence Interval | | 0.05 |
| T-Value | | -0.47940 |
| p-value obtained | | 0.6354 |
| T-Critical | | 2.0518 |
| H0: $\mu_1 = \mu_2$ | | Null hypothesis |
| H1: $\mu_1 \neq \mu_2$ | | Research hypothesis |
| Population 1 \neq Population 2: p-value | | 0.635525 |
| Population 1 > Population 2: p-value | | 0.317763 |
| Population 1 < Population 2: p-value | | 0.682237 |

Note. Data summarized from the WDYDIST survey (2009).
 CN: $n=32,322$; FV: $n=5,217$; SM: $n=461$; GR: $n=1,176$.

Results

The 2-tailed p -value obtained is 0.6354 and is considered not to be significant. $T = 0.4794$ with 28 degrees of freedom. Mean difference: -0.044667 (mean of Grand-River minus mean of Smallville).

- There is a 36.5% chance that the means are different.
- There is a 68.2% chance that Grand-River's mean is less than Smallville's mean.
- There is a 31.8% chance Smallville's mean is less than Grand-River's mean.

Appendix G.

Student WDYDIST Survey: Results by Grade

| | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 |
|--|---------|---------|----------|----------|----------|
| Students rating out of 10 having experienced a positive sense of belonging | | | | | |
| District | 79 | 77 | 75 | 76 | 73 |
| Grand-River | 78 | 68 | 81 | 72 | 74 |
| Smallville | 81 | 79 | 87 | 83 | 72 |
| Percentage of students who played in coached school sports | | | | | |
| District | 55 | 44 | 47 | 36 | 35 |
| Grand-River | 62 | 51 | 56 | 35 | 33 |
| Smallville | 58 | 40 | 43 | 32 | 35 |
| Percentage of students who took part in sponsored clubs/committees | | | | | |
| District | 46 | 36 | 35 | 36 | 46 |
| Grand-River | 64 | 39 | 31 | 51 | 54 |
| Smallville | 52 | 33 | 35 | 31 | 53 |
| Proportion out of 10 that students rated being Intellectually Engaged | | | | | |
| District | 5.4 | 4.8 | 4.8 | 4.5 | 4.8 |
| Grand-Rive | 5.0 | 4.1 | 4.8 | 4.1 | 5.0 |
| Smallville | 5.7 | 5.3 | 5.1 | 4.9 | 4.9 |
| Proportion out of 10 that students rated having experienced positive teacher-student relations | | | | | |
| District | 6.7 | 6.1 | 6.1 | 5.8 | 6.0 |
| Grand-River | 6.4 | 5.8 | 6.4 | 5.8 | 6.2 |
| Smallville | 7.3 | 6.4 | 7.1 | 6.7 | 6.2 |
| Proportion out of 10 that students rated having experienced a positive disciplinary climate | | | | | |
| District | 6.7 | 6.1 | 6.1 | 6.0 | 6.1 |
| Grand-River | 6.4 | 5.9 | 6.2 | 5.7 | 6.3 |
| Smallville | 7.0 | 6.5 | 6.8 | 6.9 | 5.9 |

Note. Data summarized from the WDYDIST survey (2009).
 CN: $n=32,322$; FV: $n=5,217$; GR: $n=1,176$; SM: $n=461$.

| | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 |
|---|----------------|----------------|-----------------|-----------------|-----------------|
| Proportion out of 10 that students rated having experienced high teacher expectations for student success | | | | | |
| District | 8.2 | 7.5 | 7.5 | 7.2 | 7.3 |
| Grand-River | 8.1 | 7.1 | 7.8 | 6.9 | 7.3 |
| Smallville | 8.6 | 7.9 | 7.9 | 8.0 | 7.3 |
| Proportion out of 10 that students rated having experienced effective use of classroom learning time | | | | | |
| District | 7.1 | 6.5 | 6.5 | 6.2 | 6.4 |
| Grand-River | 6.9 | 6.1 | 6.9 | 5.9 | 6.7 |
| Smallville | 7.7 | 6.9 | 7.2 | 7.0 | 6.3 |
| Percentage of students who were planning to graduate | | | | | |
| District | 94 | 92 | 95 | 94 | 94 |
| Grand-River | 93 | 88 | 96 | 92 | 93 |
| Smallville | 95 | 96 | 96 | 98 | 96 |
| Percentage of students who were planning to pursue a trade or apprenticeship | | | | | |
| District | 23 | 23 | 18 | 15 | 13 |
| Grand-River | 25 | 18 | 14 | 13 | 15 |
| Smallville | 25 | 28 | 25 | 20 | 10 |
| Percentage of students who were planning to go to college or university | | | | | |
| District | 78 | 75 | 77 | 69 | 72 |
| Grand-River | 75 | 69 | 77 | 58 | 67 |
| Smallville | 77 | 69 | 76 | 69 | 79 |

Note. Data summarized from the WDYDIST survey (2009).
 CN: $n=32,322$; FV: $n=5,217$; GR: $n=1,176$; SM: $n=461$.

Appendix H.

Student What Did You Do n School Today? Survey: Start-up Processes

What Did You Do In School Today? (WDYDIST)

1. Key messages for School Staff: Principal will need to apprise staff of the survey, explaining how it will be conducted initially, and stressing the importance of this for the school and district. Highlight that the survey is anonymous and voluntary. Invite staff to visit The Learning Bar's web site www.thelearningbar.com for further information. A PowerPoint slide set is available and can be used to inform any group about the project: *What did you do in school today? (WDYDIST)*.
2. Key Messages for Students: Students are normally informed about the survey at a school assembly. Principals are encouraged to:
3. Tell students why their voices are important to hear.
4. Assure them that their input will be considered.
5. Explain that each student will have an opportunity to complete the survey on-line before the end of the school year.
6. Assure students that the survey is anonymous and voluntary (they can skip any questions they do not wish to answer).
7. Key messages for Parents: most schools minimally inform parents that this survey is being undertaken as part of their school improvement effort, and that it is both voluntary and anonymous. Most districts place the onus on parents to inform the school if they do not wish their child not to participate. Any school district with policies governing informed consent are responsible for managing any such requirements.

Appendix I.

Sample Parent/Student Backgrounder

[The following information was included as a backgrounder for all students and parents in seeking their consent and permission to participate].

Study of Student Engagement

There is a growing sense of discontent, disconnectedness, and disengagement among secondary students and their schooling.

Studies based on the Programme for International Student Assessment (PISA) found that about 20 to 25% of students in North America lacked a strong sense of belonging at school. Feelings of detachment or disaffection with school were evident including among those students with strong academic performance. Students with a poor sense of belonging at school are less likely to value schooling outcomes and in the longer term less likely to undertake further education (Willms, 2003). A recent New Brunswick Ministry of Education report recommended that the education system “be more understanding, be more flexible, and be more proactive in reaching out to youth, families, and communities” (Milovanovic, 2007). The report suggested that policy makers, districts and schools need to listen to what students say; include a broad offering of extra-curricular activities; provide sufficient and appropriate resources for assessment, counselling, and needed interventions; and encourage a culture in which youth feel they ‘belong’ within schools.

The Fraserview School District has collaborated with The Learning Bar and Canadian Education Association (CEA) to survey students in our secondary schools on their level of engagement in learning, their level of student wellness and the climate of their classroom(s) and school. The survey, *What Did You Do in School Today?* (WDYDIST) was developed by internationally renowned University of New Brunswick educational researcher Dr. Douglas Willms in collaboration with the CEA and is based upon years of research in Canada and around the world.

This study is intended to add to the knowledge base about what constitutes learner engagement in high school from a student’s perspective. It will investigate why some students feel connected to school and others do not; how student engagement develops in secondary schools; and what factors influence student engagement. The study will try to clarify some of the processes, which take place in school and contribute to student engagement. It is intended to reveal more about how students experience life at school. The study will serve as a stimulus for discussions about school practices and policies and to inform the decisions needed to make a difference for students. Given the changes in school organizational structures due to declining enrolment, this study will consider how schools are being organized; give consideration for the types of programs being offered, and the ways that students are taught. It will ensure that students feel a sense of belonging, have a voice in their learning, and are valued and respected members of the school community.

What Did You Do In School Today? (WDYDIST): <https://www.engagedinlearning.ca/>

Tell Them From Me (TTFM): <http://www.thelearningbar.com>

Canadian Education Association (CEA): <http://cea-ace.ca/home.cfm>

Appendix J.

Parent Permission Letter (Sample)

Dear Parents or Guardians,

[Date inserted]

Re: Study of Student Engagement

In collaboration with the Fraserview School District, I am conducting a research study as part of my work in pursuit of a doctorate in Educational Leadership through Simon Fraser University.

The School District has recently collaborated with The Learning Bar and Canadian Education Association (CEA) to survey students in our secondary schools on their level of engagement in learning, their level of student wellness and the climate of their classroom(s) and school.

As a follow up to the survey, a selection of students will be asked to participate in individual interviews and large group discussions. These interviews and discussions will be video-recorded.

Through a random process, your son or daughter has been selected to be a part of this follow up study. The study will enable the school and district to improve student engagement and enhance teaching and learning based upon the data gathered from the survey and the follow up interviews and large group discussions. A background document describing the research is attached for your information.

This study is intended to add to the knowledge base about what constitutes learner engagement in high school from a student's perspective. It will investigate why some students feel connected to school and others do not; how student engagement develops in secondary schools; and what factors influence student engagement. The study will try to clarify some of the processes, which take place in school and contribute to student engagement. It is intended to reveal more about how students experience life at school. The information gathered from the study will allow the school and district to assess the effectiveness of our programs from the eyes and voices of the students.

This letter is to seek permission for your son or daughter to participate in the individual interviews and large group discussions regarding student engagement—both of which will be video-recorded. A permission form is attached for your approval.

The data collected from this study will be kept completely anonymous and student participation is voluntary. Individuals will not be identified. Students can opt out of the study at any time. Non-participation will have no effect on student achievement or assessments. The interview or large group discussion takes about 30-40 minutes to complete and will be done within the school day. There are no known risks to participants by taking part in this study. This study has the approval of the Fraserview School District. Copies of the results of the study, upon its completion, may be obtained by contacting the School Principal or the School Board Office or directly through me.

If you have any questions, please contact your School Principal or call me directly. Thank you for your assistance in this study.

Yours truly,

Steve Cardwell

Researcher/Graduate student, SFU Educational Doctorate Program

Tel.: [Redacted]

Email: [Redacted]

Parent Permission Letter

Please return this form in the envelope provided to your School Principal by: _____ [Date]

Regarding the Student Engagement study

I understand the nature of this study and give permission for my son/daughter _____ to participate in the videotaped individual interviews and large group discussions. I am aware that participating students will not be identified by name. I am also aware that student participation in the follow up interviews and large group discussions is voluntary and students can opt out at any time.

Parent Name: _____

Parent Signature: _____

Date: _____

School my child attends: _____

Current grade level of my child: _____

Your signature on this form will signify that along with the covering letter, which describes possible risks and benefits of the study, you have received a background document, which describes the nature of this research study, that you have received an adequate opportunity to consider the information in the document, and that you voluntarily agree to allow your child named above to participate in the study.

Any complaints about the study may be brought to the attention of:
Director, Office of Research Ethics, Simon Fraser University
Tel.: 778-782-6593

Email: _____

Appendix K.

Student Consent Letter (Sample)

Study of Student Engagement (Description)

[Date inserted]

It is not often that students are given a voice to express their feelings, opinions, and understanding of their experiences in school. You have recently completed a student engagement survey about your experiences in and out of school. The questions covered three key areas: student engagement, student health and wellness, and school and classroom climate. Student engagement refers to how you identify with and like school, how you participate in academic and non-academic activities such as sports and clubs, and what your long term goals and ambitions are. The district is also interested in hearing about whether you feel a sense of belonging at school, time spent on physical activities, as well as some questions about how you experience and feel about school.

As part of my graduate work at SFU in pursuit of a doctorate in Educational Leadership, I am conducting further research into student engagement and am interested in learning more about how students become engaged in school.

This study is intended to add to the knowledge base about what constitutes learner engagement in high school from a student's perspective. It will investigate why some students feel connected to school and others do not; how student engagement develops in secondary schools; and what factors influence student engagement. The study will try to clarify some of the processes, which take place in school and contribute to student engagement. It is intended to reveal more about how students experience life at school. The study will serve as a stimulus for discussions about school practices and policies and to inform the decisions needed to make a difference for all students. This study will consider how schools are being organized, give consideration for the types of programs being offered, and the ways that students are taught to ensure that they feel a sense of belonging, have a voice in their learning, and are valued and respected members of the school community.

I have randomly selected a number of students who have completed the student engagement survey for a follow up interview and large group discussion. I am therefore seeking your consent to participate in this follow up study. I have attached a consent form and ask that you return the form to your Principal as soon as possible.

This is an opportunity for you to be heard. The intention is to listen to your collective voices in order to make a difference in your own school experiences and that of all students in our system. Your responses will be kept completely anonymous. Your participation in this follow up individual interview and large group discussion is voluntary and you may opt out at any time. The interviews and large group discussions will be videotaped. Deciding to not participate, or deciding to withdraw will have no effect on your school achievement or assessments. This study has the approval of the Fraserview School District. There are no known risks to participants by taking part in this study. Copies of the results of this study, upon its completion, will be available by contacting the School Principal or the School Board Office or directly through me.

If you have any questions, please ask your teacher or Principal or if you wish, you can contact me directly. Thank you for your help in this important opportunity for student feedback about your schooling.

Yours truly,

Steve Cardwell, Researcher/Graduate student, SFU Educational Doctorate Program

Tel.: [REDACTED]

Email: [REDACTED]

Student Consent Letter

Please complete this form before participating in the study and return it to your Principal by [Date]_____

Regarding the Student Engagement study.

I understand the nature of this study and agree to participate in the individual interviews and large group discussions. I am aware that as a participating student, I will not be identified by name. I also understand that the sessions will be videotaped. I am also aware that my participation in the videotaped interviews and large group discussions is voluntary and that I can opt out at any time.

Student Name: _____

Student Signature: _____

Date: _____

School: _____ Grade: _____

Your signature on this form will signify that along with the covering letter, which describes possible risks and benefits of the study, you have received a background document, which describes the nature of this research study, that you have received an adequate opportunity to consider the information in the document, and that you voluntarily agree to participate in the study.

Any complaints about the study may be brought to the attention of:
Director, Office of Research Ethics, Simon Fraser University
Tel.: 778-782-6593

Email: _____