# University of Alberta

Development of an Outreach School Learning Environment Survey

by

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## Dedications

I would like to dedicate this research paper to my daughter Madison who brings me endless joy each and everyday and in memory of my mom Anna whom I miss more with each passing day.

## Abstract

Dropping out of high school negatively affects individuals and society. In today's technological world, a high school diploma is often seen as the minimum standard of education an individual is expected to achieve. Thus, governments and educators continue to struggle with developing new solutions to combat the problem of early school leavers. One solution developed in the 1990's was Outreach schools. Outreach schools were created to provide students who were unable or unwilling to attend traditional schools with a flexible educational alternative. However, not all students who register at an Outreach school achieve a high school diploma. Outreach schools are unique learning environments and there has been little research done on them. Numerous surveys are available to assess different types of learning environments, however, there are none that look specifically at Outreach learning environments. This paper describes the development and validation of the Outreach School Learning Environment Survey (OSLES), which can be used to analyze specific factors related to Outreach learning environments.

**Acknowledgements**

I would like to thank my husband, my dad, and my auntie Joja for all their love and encouragement throughout my graduate studies. They knew I could do it even when I sometimes doubted myself.

I would also like to thank my supervisor, Gregory Thomas, who so kindly provided me with words of encouragement, support, and wisdom. When my ideas got to big and out of control he made me see that I did not need to solve the worlds problems in one research project.

Finally, my deepest appreciation goes out to my principal Joan Fouts-Mitchell and all of my Learning Store colleagues. Without their help and support I could not have completed this project. I am deeply humbled to work with such a hardworking and dedicated group of educators.

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**Introduction**

When I began my teaching career nearly fourteen years ago, I had never heard the term 'outreach' used to refer to a school. It wasn't until my fifth year of teaching that I came across the term. I was desperately looking for a new position as the teaching position I was at was being cut. So in May 2005 when Edmonton Public School began posting teaching positions for the following school year, I began submitting my name to every math and science postings that appeared. One of the positions I applied for was for a Biology teacher at an Outreach high school. I didn't know what an Outreach high school was, but when the principal called me for an interview I went. After the interview I was offered an Outreach junior high position, not exactly the position I applied for, but I accepted and my journey in Outreach schools began. I started in the junior high program, but after decreasing student numbers and budget cuts I was moved to an Edmonton Public Schools Outreach high school, also known as a Learning Store. It was during my first year at the Learning Store that I realized how much these students wanted a high school diploma, but how few of them achieved this goal. I wondered what could be done to help more of them graduate. After not coming up with any answers I found the focus of my University studies changing. I had originally enrolled at the University of Alberta's Master of Education program to gain the skills and credentials needed to work for Alberta Education developing and improving Alberta's science curriculum, but I found my notion of what was meant by curriculum changing. The program of studies took on a new meaning and I began to see it as only one of the many factors that make up a student's learning environment. I became fascinated by the idea that we can change student outcomes by changing their learning environment. However, before starting to make changes to Outreach learning environments, such as using technology to increase student collaboration, I decided it would be beneficial to collect information from students as to what their perceptions of the current Outreach learning environment are. Going through the literature I realized that there was a lot of research that had been done on many different learning environments, but there was no research specifically related to Outreach learning environments. This meant that I was not able to use an existing learning environment survey to gather students' opinions on matters I saw as important with respect to high school completion rates. Therefore, if I was to assess Outreach

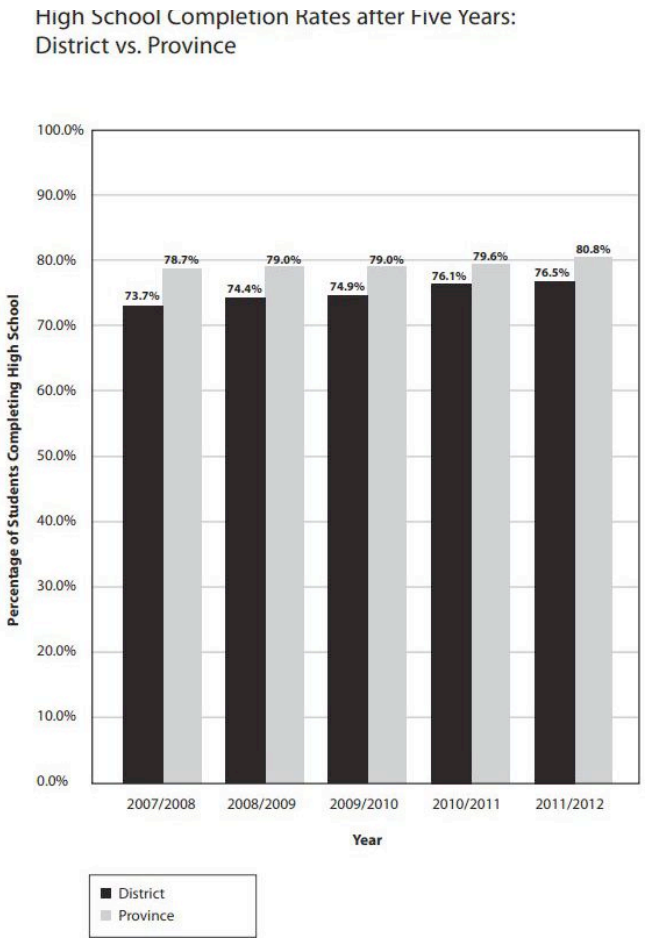
learning environments I thought I should first develop an instrument that could be used to collect baseline data and then to monitor any future changes that are made to Outreach learning environments. The first step to developing the Outreach School Learning Environment Survey (OSLES) was to determine what learning environment factors were the most important to include.

## Literature Review

### *At-risk Students and High School Dropouts*

According to Patricia Kozicka (Global News October 2, 2013) Edmonton Public schools continues to have the provinces highest dropout rate at approximately 25%.

**Figure 1.** *Five Year Completion Rates for Alberta*




Courtesy: Edmonton Public Schools

This statistic is not surprising. That students dropout of high school is nothing new. What constitutes a high school dropout? Alberta School Boards Association (2010) defines high school dropouts as,

> [S]tudents aged 14 to 18....who are registered in the education system one year but not the next (K-12 school, post secondary institution or apprenticeship program in Alberta) or have not completed high school are deemed to be a dropout. (p. 8)

According to this definition, I am a high school dropout. I choose to dropout of high school in grade 10 for many different reasons and did not return to high school until what would have been my grade 12 year. Fortunately, I overcame the issues that led to my dropping out, reenrolled in school and successfully continued my educational career. That was over 25 years ago. For decades students have been dropping out of school and for decades researchers have tried to identify factors that may contribute to students dropping out. For example, DeBlois (1989) found that low self-esteem contributes to students dropping out, while Ekstrom, Goertz, Pollack and Rock (1986) suggest that low academic achievement may be a more significant factor than low self-esteem. The debate about what factors contribute to students dropping out seems endless. Even an Alberta School Boards Association (2010) publication weighed in on the debate by identify what it considers to be significant risk factors associated with students dropping out of school. The factors identified in the report include; individual background (learning or emotional disturbances), early adult responsibilities, poor school performance, poor school engagement, frequent misbehavior in school, criminal activity out of school, large family size, low socioeconomic standing, frequent migration, and being of aboriginal decent. Interestingly enough, none of those applied to me. That is why I think Hahn (1987) and Afoayan (1991) who describe dropping out as a multifaceted and complex problem have a more realistic and accurate view of the issue. However, just because something is complex and complicated does not mean we should stop looking for answers; it just means that a one-size fits all answer will not suffice.

Where does the journey to becoming a high school dropout start? Perhaps it starts with a label. Numerous students each year are identified and labeled by educators as 'at-risk'. Suh, Suh, & Houston (2007) state, "the term at-risk refers to aspects of a student's background and environment that may lead to a higher risk of her or his educational failure" (p. 196). This is concerning since McCann & Austin (1988) indicate that at-risk students are at risk of not graduating from high school, or acquiring the knowledge, skills, and dispositions to become productive members of society. The term 'at-risk' has also been applied to students with cognitive or learning disabilities. However, in this study only students who are intellectually capable but are in jeopardy of not achieving a high school diploma due to environmental, social, emotional, behavioral, academic or attendance issues are considered.

After decades of research and head scratching, dropout rates continue to hold steady. This is likely due to the number of factors that have been identified as relating to the at-risk label. One important factor that is often focused on, due to its potential to over come other risk factors, is motivation. Lack of motivation is evident when students recognize the economic benefits of having a high school diploma, but are still unwilling or unable to put in the effort and work it takes to achieve one. Many researchers have examined different ways of dealing with different at-risk factors such as motivation (e.g., Suh & Suh, 2007; Ball, 2002). Though some risk factors have been afforded a greater importance in current research, the fact is that at-risk students likely present more than one risk factor and some risk factors may not even be apparent to educators and researchers. It is beyond the scope of this project to identify all factors affecting at-risk student success. Due to the complexity of the topic of high school dropouts and risk factors, this research project is limited to those factors that are most relevant to Outreach learning environments.

Regardless of why a student drops-out of high school it is important to note that this does not mean they do not wish to obtain a high school diploma. According to Brantlinger (1993), "Though [at-risk students] valued the stamp of approval of the diploma, they were not convinced that school knowledge was relevant to other aspects of their present and future lives" (as cited in Gallagher, 2002, p. 52). So why do people still think that achieving a high school diploma is important when they do not see an

immediate use for it? The motivation for me achieving a high school diploma was to obtain a societally accepted form of proof that I was indeed smart. What motivated you to get yours?

*Importance of Achieving a High School Diploma*

Why use a high school diploma as a measure of success? From an early age children are told that education is important if you want to have a chance for success in life. So day-in and day-out most students go to school and attend to the information they are told is of most worth. Many do not question what is expected of them; they know if they want to achieve the coveted high school diploma they must follow the established routines. Ball (2002) writes,

> School was simply a way of life, a routine; it was what we "did" each day, with an ultimate goal of receiving a diploma at graduation. This is an expected milestone in our society, a symbol of collective spirit and shared experience. (p. 73)

Thus many students successfully maneuver through the traditional educational system and achieve a high school diploma and progress to their next educational or career goal. However, the traditional educational setting does not work for everyone, positioning this group of students for a bleaker economic future. According to Fortune, Bruce, Williams, and Jones (1991), a high school diploma is important for survival in our technology-driven society. However, in Alberta during the oil boom dropping out did not mean economic doom. Dropouts found well paying, physically demanding jobs in the oilfields, but the instability of the oil market and world economy has seen many of these high school leavers lose their jobs. The problem often is that they might be seen to not have any other transferable or marketable skills; therefore, once these individuals are unable or unwilling to do these physically demanding jobs, they find themselves struggling to find other types of work. Oreopoulos (2005) sums it up well by simply saying, "...high school drop-outs fare much worse later in life than those who obtain more education" (p. 1).

Unemployment rates not only effect individuals but also society as a whole. Christle, Jolevette, and Nelson (2007) state, "Dropping out of high school is a serious

problem, not only for the individual, the school system, and the community, but also for society." (p. 235). This is further supported by Rumberger, 1987; Williams, 1987; and Campolieti, Fang, and Gunderson, 2010, who indicate that students dropping out of school results in a greater costs to society in terms of lost income revenue and the need to provide social supports for these individuals. The Conference Board of Canada (2013) says,

> People who do not graduate from high school earn substantially less than those who do graduate. A person without a high-school diploma in Canada earns 80 per cent of what a person with a diploma earns. The outlook for a dropout is even bleaker in the U.S., where someone without a diploma earns only 65 per cent of what a person who completed high school earns.

This is why politicians, educators, and researchers continue discussing the need to decrease dropout rates. Certain measures have been put in place to curb dropout rates such as identifying at-risk students and implementing support programs designed to help students obtain a high school diploma. However, these support programs only address one or two risk factors and are often region specific. For example, Antone (2003) describes how Northern Canadian schools with high aboriginal populations are altering how and what they teach so as to provide a greater aboriginal perspective. These programs are improving outcomes for many of these students. However, such a program would have limited success in large urban high schools due to the diversity of the students attending such schools.

Whether it is for its promise of a brighter economic future or for the societal bench-mark that it is so prominently tied to it; almost everyone, even high school dropouts want a high school diploma. This desire for a high school diploma is why many at-risk students and high school dropouts find themselves seeking alternative educational options. A possible educational option for students who are not successful in traditional high schools falls under the classification of Outreach schools.

*Outreach Schools*

Outreach is a broad term that refers to the provision of services to individuals or populations who might not otherwise have access to those services. In education, Outreach programs are meant to help fill the gap in the services provided by traditional schools. The Alberta Learning (2009) Outreach Programs Handbook states, "The use of the term 'outreach' in Alberta emerged in the mid 1990s. It was preceded by the term 'storefront' school, and a number of Outreach Programs still retain 'storefront' in their name" (p. 1). Though there are different types of Outreach programs, in this paper 'Outreach' will specifically refer to 'Storefront' schools also known as 'Learning Stores'. Learning Stores are nontraditional schools that were developed to give students an alternative to the traditional school setting. Unlike distance learning, Learning Stores provide the direct teacher support many students require if they are to be successful. In this paper the terms Outreach and Learning Store are used interchangeably.

The purpose for developing Outreach schools in Alberta was to provide an alternative educational option to individuals who are between the ages of 15-20 who have either dropped out of school or are otherwise 'at-risk' of not achieving a high school diploma. Alberta Learning (2009) Outreach Programs Handbook indicates that, "Outreach Programs provide an educational alternative for junior and senior high school students who, due to individual circumstances, find that traditional school settings do not meet their needs" (p. 1). However, students attending Outreach schools are not limited to those typically defined as at-risk. Other students attending Outreach schools include: students who have graduated but need to upgrade course marks to get into post-secondary programs or, students already attending post-secondary schools who need to obtain a prerequisite course for a post-secondary course their program requires, or students moving into an area mid-semester when traditional high schools no longer register students until the following semester.

The physical setup of Outreach schools also creates a unique learning environment where the school and the classroom are one. The physical setup is in part due to a Government of Alberta requirement stating that Outreach "...site[s] and facilities where the Outreach Program will be offered are stand-alone and meet Alberta building, health and safety standards for school buildings" (Alberta Learning, 2009, p. 4). This

means that Outreach schools cannot be located within existing high school buildings. The other reason for the unique physical setup is that Outreach teachers do not instruct a uniform group of students. Thus, for practical reasons, neither staff nor students are segregated into separated classrooms. To help ensure students receive enough assistance from teachers, students are required to attend a minimum of 10 hours a week. During this time they sit in a common area, work on their modules, and interact with their teachers. These student-teacher interactions are important in building positive relationships.

The teacher-developed modules students work on are designed to reflect the curricular outcomes of Alberta Education's program of studies. Modules are primarily in paper and pencil format, though recently there has been an attempt to incorporate the use of technology into modules. To successfully complete modules students need to read corresponding material in the modules and textbooks prior to responding to predetermined questions and assignments. This format allows students to work independently on various courses throughout the school year. This flexibility gives student greater freedom, but with such freedom come challenges. Alberta Learning's Outreach Programs Handbook (2009) states,

> One of the major challenges for students is learning to use the flexibility in programming and time to their best advantage. Since they are responsible for their own learning, it is essential for them to acquire skill in managing their time effectively. (p. 6)

Since students need to take greater responsibility for their own learning it is important that students self-efficacy be examined in relation to the Outreach learning environment.

*What does the term Learning Environment mean?*

'Learning Environment' is a general term that encompasses numerous aspects of settings and situations individuals learn in. They can refer to both in-school and out-of-school settings. In this project only the 'classroom' or in-school learning environment is considered. In the context of a classroom the learning environment can include; instructional methods used, technology, the physical setup, and social interactions. This is why Grabinger and Dunlap (1995) argue, "The phrase learning environment is broadly

and carelessly used in educational literature to describe everything from schools, to classrooms, to computer microworlds, to learning activities, to air conditioning and furniture" (p. 11). The fact that the term learning environment seems to be overused does not negate the research that has been done on different types of learning environments. Abell and Lederman (2007) write,

> Although classroom environment is a subtle concept, it can be assessed and studied. A considerable amount of work has been undertake in many countries in developing methods for investigating how teachers and students perceive the environment in which they work. Remarkable progress has been made over several decades in conceptualizing, assessing and researching the classroom environment. (p. 103)

Instruments have been developed to measure different learning environment factors. Some of these developed instruments include: Learning Environment Inventory (Walberg & Andersons, 1968), Classroom Environment Scale (Moos, 1979), Science laboratory Environment Inventory (Fraser, Giddings & McRobbie, 1992, 1995), Self-Efficacy and Metacognition Learning Inventory – Science (Thomas, Anderson, & Nashon, 2008), Questionnaire on Teacher Interaction (Wubbels, Creton & Hooymayers, 1985), Metacognitive Orientation Learning Environment Scale (Thomas, 2003), and Constructivist Learning Environments Survey (Taylor & Fraser, 1997). These questionnaires and surveys were mainly developed for use in traditional educational settings, which is why for the purpose of this study I considered it necessary to develop a survey that could be used with Outreach students and that addressed the specific and unique aspects of Outreach learning environments.

**Outreach Learning Environment Factors**

*Student Self-Efficacy, Student Voice, and Distributed Control*

In Outreach programs, students have fewer restrictions on their time compared to regular schools due to flexible attendance requirements and course loads. The structure of the Outreach learning environment requires students to take greater ownership of their learning. Before students can take ownership of their learning they need to believe that

they ‘can’ successfully complete the courses they need to graduate. This ‘I can’ attitude is related to a student’s level of self-efficacy. Siegle (2000) explains self-efficacy as,

> [A] person's judgment about being able to perform a particular activity. It is a student's "I can" or "I cannot" belief. Unlike self-esteem, which reflects how students feel about their worth or value, self-efficacy reflects how confident students are about performing specific tasks.... However, having high self-efficacy does not necessarily mean that students believe they will be successful. While self-efficacy indicates how strongly students believe they have the skills to do well, they may believe other factors will keep them from succeeding. (p. 1)

There are different aspects of self-efficacy. In this paper student self-efficacy will examine self-efficacy judgments. Zimmerman (2000) states, “self-efficacy judgments specifically refer to future functioning and are assessed before students perform the relevant activities. This antecedent property positions self-efficacy judgments to play a causal role in academic motivation” (p. 84).

A positive correlation between self-efficacy and learner outcomes has been shown to be important in different types of learning environments. Pitkaniemi & Vanninen (2012) state “Students’ self-efficacy has been shown to have a strong association with student involvement and learning outcome” (p. 28).

Students who attend Outreach schools may or may not have low self-esteem due to past school performance or personal circumstances. However, these students choose to come to an Outreach school in hopes of achieving a high school diploma indicating that they may have a higher level of self-efficacy than individuals who dropout and do not seek alternative ways of achieving a high school diploma. Thus, students registering at Learning Stores believe they can achieve a high school diploma, but may be quick to blame external factors, such as the nature of the learning environment if they are not successful. Since determining Outreach students’ level of self-efficacy has been identified as an important factor for students’ success, an instrument was needed that could accomplish the evaluation of students’ self-efficacy. Bandura (2006) states, “There is no all-purpose measure of perceived self-efficacy” (p. 307). He also suggests, “...items

should be phrased in terms of *can do* rather than *will do*. *Can* is a judgment of capability; *will* is a statement of intention" (emphasis in original text, p. 308). The questions associated with the self-efficacy sub-scale on the OSLES used ' I can', 'I will' and 'I am'. The 'I am' statements refer to a students' level of self-efficacy regarding what they are currently doing. The 'I can' statements are the student's belief that they are capable of achieving their educational a goal. The 'I will' statement refers to a student's intention to complete their educational goal. Just because a student states that it is their goal to achieve a high school diploma does not automatically mean that they believe that they are capable of achieving a high school diploma or vice versa. I included the 'I will' statement to see if student's intention to achieve an excellent grade in a course would be different then their belief in their ability to do well in a course. This could be used to differentiate between a student's intentions to do well in a course as opposed to a student's self-efficacy.

An area related to self-efficacy that Bandura (2006) identifies, but that is not specifically addressed in this survey, is the possibility of what he termed 'collective efficacy' where the relationships built between students and teachers may affect students current level of perceived self-efficacy. The OSLES addresses each of these areas independently. However, future research relating these two areas may be warranted.

Other important skills students should possess if they are to be successful in the highly independent Learning Store learning environment are the ability to self-monitor and self-regulate. Self-monitoring and self-regulating are elements of an individual's metacognition. Metacognition and self-efficacy have been linked together by researchers such Thomas and McRobbie (2001) and Thomas and Mee (2005). It is therefore reasonable to assume that other factors related to metacognition are important and should be considered when examining Outreach learning environments. For example in the Metacognitive Orientation Learning Environment Scale - Science (Thomas, 2003) Thomas identified several factors that are important in conceptualizing metacognitive learning environments. These factors are; student-student discourse, student-teacher discourse, student voice, shared control, teacher support and emotional support. Hence, the OSLES asks questions related to student voice and shared control. The other factors

such as peer interactions, student-teacher relationships and teacher support are discussed later in this paper and are also included in the OSLES.

Ebrahimi (2013) states that critical voice refers to the "extent to which students feel that it is legitimate and beneficial to question the teachers' pedagogical plans and methods" (p. 169). Shared control is the "extent to which students have opportunities to explain and justify their ideas, and to test the viability of their own and other students' ideas" (p. 169). Student negotiation is the "extent to which students share with the teacher control for the design and management of learning activities, assessment criteria, and social norms of the classroom" (p. 169).

Self-efficacy is closely related to student voice and distributed control. If students feel that they are in control of their learning and have a say in what and how they learn they become empowered. This translates into an 'I can' attitude as their successes grow. When students register at a Learning Store they discuss their course options with a teacher. If a student does not have all their required option credits, they are given a number of option courses to choose from. If a student has enough option credits but needs more than one core courses, they are encourage to select the core course they enjoy or have done well in previously. As they complete these courses on time, with passing grades they should become more confident in their abilities to successfully complete modules and to manage their time. As a students' confidence in their academic abilities increases they should become confident and comfortable in expressing their opinions about courses, assignments and assessment. As mentioned earlier, the perception of students, in relation to expressing their opinions, is known as student voice. Friend and Caruthers (2012) state that student voice includes the, "cultural background and knowledge that students use to interpret and express their experiences related to school. To be a part of the school community is to be heard and know that one's perspective is valued" (p. 376). Britzman (1990) defined voice as "meaning that resides in the individual and enables that individual to participate in a community.... Voice suggests relationships: the individual's relationship to the meaning of his/her experience" (p. 14). This implies the need for positive relationships between students and teacher. Students not only need opportunities to express themselves but have positive relationships with their teachers so that they feel confident and comfortable in doing so.

*Relationships Between Students and Teachers; Teacher Encouragement and Approachability*

Tidwell (1988) cited boring and uncaring teachers as reasons students gave for dropping out. Reynolds and Muijs (1999) note that creating positive student-teacher relationships helps create a classroom environment that allows students to achieve their potential and feel safe and confident in participating in new tasks. Student-teacher relationships have been reported to be a significant factor in a students' emotional motivation and commitment (Meyer & Tumer, 2006). Davis and Dupper (2004) state, "One of the most overlooked school factors is the quality of the relationship between teachers and students, especially at-risk students and the powerful impact of teacher attitudes and beliefs on student success" (p. 179). Therefore, it is important that Learning Store teachers are available onsite to provide students with the support and guidance they need. Alberta Learning's Outreach Programs Handbook (2009) states,

> Teachers have a chance to assist students to realize their goals and have confidence in their own abilities. Teachers work with students one on-one and, through discussion and support, show that the goals students have are possible to attain. When students meet their goals, they start to believe in their abilities. (p. 5)

This further supports the possibility of a link between student self-efficacy and the development of positive student-teacher relationships as noted earlier by Bandura (2006). Unfortunately there have been few studies done on Outreach schools and it is impossible for one project to address all possibilities. However, a study done on Outreach schools by Housego (1999) states, "The relationship between teachers and students was a significant aspect of the Outreach experience from the perspectives of both staff members and students" (p. 97). Duke and Perry (1978) also found that teachers in alternative schools tended to be more patient, sensitive, sincerely interested, and had a sense of humor, which contributed to the establishment of a positive school climate. When Duke and Perry (1978) asked students and teachers "Who succeeds in alternative schools?" (p. 380) they listed the following student characteristics: self-motivated, able to function well

in small groups, willing to assume responsibility, and willing to participate in activities. The alternative environment they were studying was a school within a school setting, thus not all of their findings can be directly applied to Learning Stores. However, what is the same is that teacher-student relationships are less formal than in traditional settings and more aligned with Rubio's (2009) description of how effective teachers form relationships with students which he goes on to say is not how most teachers in traditional schools teach, "Many teachers still teach their students in the same way they were taught. Some because they, erroneously, think that the traditional teaching is more effective,..." (p. 39). Traditional teaching methods have been shown to have a negative impact on at-risk students. Since students attending Outreach programs generally fall into the at-risk category it is important that teachers in Outreach programs possess the characteristics and skills associated with effective teachers. Stronge (2007) states,

> Effective teachers of at-risk or highly mobile students meet affective needs by caring for and interacting with students, being fair and respectful, being enthusiastic and motivating, having a positive attitude toward teaching, and being reflective practitioners (as cited in Popp, Grant, & Stronge, 2011, p. 277)

Learning Store staff, like most teachers, work diligently in attempting to build positive relationships with students and provide them with opportunities to achieve their educational goals. However, many students who register at an Outreach school do not achieve a high school diploma before the age of 20. Outreach schools are currently not meeting the needs of all students who register. Since Outreach is the last hope for many of these students, they can become permanent high school leavers if they are not successful in the Learning Store environment. The question then becomes; are our attempts to develop these relationships matching with students' perceptions of these relationships or is relationship building an area that Learning Stores need to address. The OSLES contains questions, which ask for the opinions of students in regards to how they perceive student-teacher relationships in Learning Stores.

*The Importance of Peer Interactions and How Technology Can be Used in Outreach Environments to Facilitate Peer Interactions*

Are peer interactions in school really important? Hymel, Schonert-Reichl, and McDougall (1996) stated that less attention has been given to the role peers play in determining a students choice to dropout of school than on other factors such as personal factors, family factors and school achievement. This may be because educators feel they have a limited amount of control over peer interactions. Lack of research in this area does not mean that peer interactions do not play a vital role in students dropping out of school. Parker and Asher (1987) suggested that social factors are better indicators for students not graduating than cognitive or parental factors. Valverde (1987) found that overall dropouts associated less with their peers and did not associate with successful peer groups at all. Vitaro, Larocque, Janosz, and Tremblay, (2001) state, "Two peer variables have been linked with dropping out of school: rejection from conventional peers and association with deviant peers" (p. 402). 'Rejection from conventional peers' can take on many forms. Some individuals lack the social skills that allow them to fit in with mainstream peers thus positioning them as outsiders. Without peers to provide support and a feeling of connectedness with the school, individuals may feel alone, isolated, and may become targets for bullying. Students who do not fit in with mainstream peers have generally had negative social experiences, which they may associate with school and consequently choose to dropout. Another possibility is that students who do not fit in with their mainstream peers begin to associate with deviant peer groups who themselves are considered outsiders. Such peer groups may pressure individuals to take part in criminal activities, socially unacceptable behavior or increased absenteeism. When students make negative choices teachers and administrators may stereotype them and inevitably push them out of school. The Alberta Learning (2009) Outreach Programs Handbook states,

> Students are often faced with overcoming past and present social challenges. These challenges require a strong will and perseverance in order to break ties with friends who are exhibiting unacceptable behaviours, overcome the negative

> attitudes toward school that may be present in their neighbourhoods and give up bad habits such as drugs or alcohol. (p. 6)

If Outreach programs are to help students break negative social interaction patterns they need to offer students support services such as counseling along with opportunities to build positive peer interactions.

Most of the literature available in relation to peer interactions has been done prior to the explosion of social media. What effect has the increased use of social media had on peer interactions? Mesch (2012) writes,

> Online communication has become an integral part of youth culture...online communication expands the adolescent's social circle to include more members from different age groups, genders, place of residence, and ethnic groups, thereby reducing the well-known social homophily of adolescent peer groups." (p. 98)

Most students who communicate online are in touch with people they already know in person. "Teens with strong connections to school-based peers use online communication to seek out additional opportunities to interact with them" (Mesch, 2012, p. 99). However, students who do not have many or any positive interactions with peers at their school tend to communicate online with individuals they do not personally know. Mesch (2012) says, "socially anxious adolescents are more likely to rely on online communication and report higher friendship quality" (p. 99). While the anonymity of social media can create positive peer interactions for students, it can also have negative consequences. "Perpetual communication, however, raises the risk of their becoming involved in negative social ties as well. This need will certainly lead to greater demands on social skills as the size, heterogeneity, and intensity of involvement in social realms increase" (Mesch, 2012, p. 100). In response to the increasing level of technology found in schools Alberta Education has created the Digital Citizenship Policy Development Guide (2012). This policy places digital citizenship as one of the 21st century skills students should posses (Figure 2).

Alberta Education policies have an effect on how and what teachers are expected to teach. What effect these changes will have on students and on learning outcomes is yet to be determined as noted in Alberta Educations' final report on "Technology and High School Success Rates" (Daniels, Friesen, Jacobsen, & Varnhagen, 2012), indicates. What is clear is that technology has had a significant impact on society. It has changed how we do things and even how we communicate. Thus, the growth of social media has called the significance of in-school peer interactions into question.

**Figure 2.** *A Conceptual Model for the Framework for Student Learning*

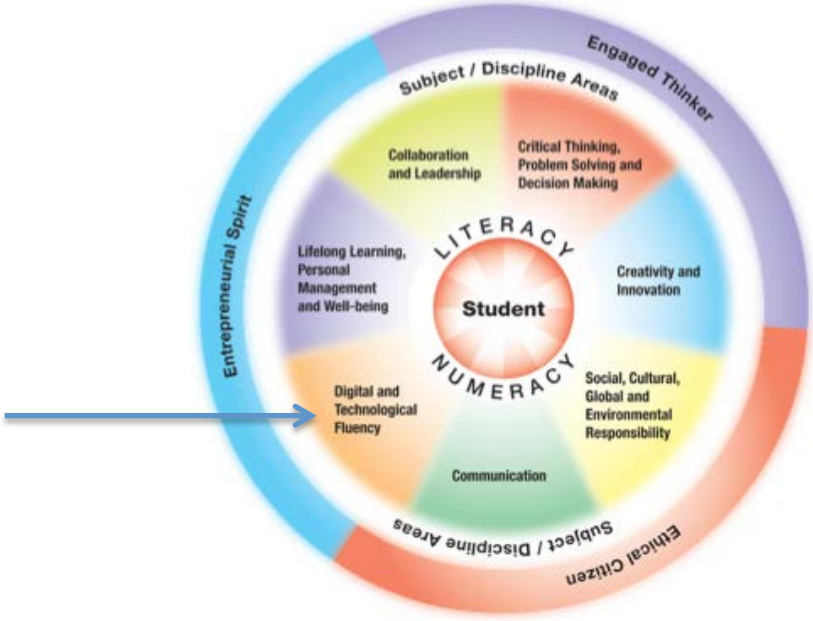



Figure 1. A conceptual model for the Framework for Student Learning.

Alberta Education Digital Citizenship Policy Development Guide, 2012, p. 16

In the Learning Store environment students work independently on modules and there is minimal interaction between students regarding their personal lives or their schoolwork. As an Outreach teacher, I am aware that there is a lack of student interactions in school. However, I am an outsider. I do not belong to the student group and therefore my judgments are based on different criteria than that of students. Thus, I question how students perceive the interactions they have with their peers in Outreach

learning environments. That is why questions were included in the OSLES to determine if Learning Store students also perceive their in-school interactions with other students to be minimal. Though these questions ask students about the level and types of interactions they have with Outreach peers, they do not determine to what extent students want or need such peer interactions.

However, since research has shown peer interactions and collaboration to have positive student learning outcomes, it is important for Learning Stores to examine ways that positive peer collaborations and interactions can be supported. A possible means of increasing student collaboration is through the use of social media and technology.

In todays rapidly advancing technological society it is almost impossible to maneuver away from the topic of technology. It was noted earlier in this paper that a high school diploma is important for survival in our technology-driven society (Fortune, Bruce, Williams, & Jones 1991). This implies that individuals with higher levels of education have a greater technological advantage than those with lower levels of education. It is true that in today's classrooms more technological gadgets are being incorporated as part of the learning environment. However, it is inappropriate to think that by just 'having' technology in a classroom provides students with some kind of advantage. Students need to interact and use technology in different ways and applications if it is to be of any future use to them. The Alberta Program of Studies for Mathematics, Science, English Language Arts, and Social Studies all include sections that outline the use of technology to communicate and enhance learning experiences. Since the Programs of Study include the use of technology in instruction, teachers are expected to incorporate technology into their lessons. Thus, technology is no longer a luxury; it is a requirement. Even Outreach schools are feeling the pressure to incorporate technology into their instructional materials. Current literature dealing with technology and instruction often focuses on the use of technology and social media to establish constructivist-learning environments to enhancing student engagement (e.g. Gilakjani, Leong, & Ismail, 2013; Cole, 2009). The contention is that if students are more engaged with their learning they are more motivated to learn.

Research on the use of technology to construct constructivist learning environments has been done on distance learning, post-secondary settings and traditional

classrooms, but not specifically on Outreach schools. With respect to traditional schools Alberta Education released their final report on "Technology and High School Success Rates" (Daniels, Friesen, Jacobsen, & Varnhagen, 2012), however this report does not include the use of technology in relation to Outreach schools, nor is there any suggestion as to how technology could be incorporated into non-traditional high school environments. This project therefore examines only the extent to which students feel Learning Stores are currently using technology and not whether students support the use of more technology in Learning Stores. Whether students desire the use of more technology may be a point for future study.

**Importance of this Study**

Many students do well in Alberta's educational system, or at least survive until graduation. However, there are students who are labeled at-risk who do not find academic success in the current educational system. These students usually bounce from one school to another until they give-up and dropout. It is important to work with these students to determine what they need so they can achieve their educational goals. There is a vast literature identifying what factors are important in increasing at-risk students success. My goal was to select those factors (i.e. self-efficacy, student voice, distributed control, student-teacher relationships, teacher encouragement, peer interactions and use of technology) as previously mentioned, that are applicable to Outreach learning environments and to develop an instrument that can be used to gather information from a students' perspective. The data gathered would then be used to develop and validate the survey. The data could also suggest what factors Learning Stores are perceived by students as attending to and what areas may need to be reconsidered. Any changes could then be assessed using the developed instrument.

Why ask for the opinions of students? Dorn (1996) writes, "Asking for the opinions of dropouts acknowledges the probability of shared responsibility for the complex phenomenon of dropping out," and suggests that school officials can benefit from their insights (as cited in Gallagher, 2002, p. 37). As teachers we try to do what is best for students. We implement new programs and try new thing all in the hope of helping more students. However, all our hard work and efforts are for nothing if students do not view what we are doing as helpful.

Fisk (1994) writes,

> Hartnagel, Krahn, and Low (1986) conducted a study on dropouts in Edmonton and found that a major reason offered for leaving was problems at school. Accordingly, it is considered appropriate to explore the school related factors which may contribute to the decision to dropout. (p. 6)

Teachers have the greatest amount of control over what happens within their schools and classrooms. Though teachers cannot solve all the worlds' problems, they can make a difference in the rate of high school dropouts. Teachers can accomplish this by creating environments that support student learning. Helping students graduate is important because governments and society keep saying that dropping out is detrimental to both individuals and societies economic future. Therefore, it is socially responsible for administrators and teachers to continue examining their school learning environments to decrease high school dropout rates and improve learning outcomes for all students.

As school officials realized that traditional school environments do not work for all students, Outreach programs seem a plausible option. Outreach schools were designed to provide an alternative learning environments for students who were not successful in traditional schools. Housego (1999) writes,

> Outreach staff appear also to have taken seriously the conclusions of Dewey (1966) with respect to designing an appropriate educational environment. Recognizing that we educate indirectly through the environment, Dewey concluded that the school environment should be simplified, what is undesirable in it should be weeded out, and it should be linked with the community for the purpose of gaining a broader social experience, all of which appear to have happened in this alternative educational scheme. (p. 100)

Outreach schools do make a difference in the lives of many students. Sometimes student successes translate into high school diplomas and other times the difference Learning Stores and staff have made may be less tangible. If societies goal is to increase student

high school completion rates for economic or other reasons, perhaps an important aspect of the school system to examine is the school environment. As Christle, Jolivette, and Nelson (2007) write, "Schools are active, dynamic settings that may unwittingly help or hinder student success. Thus, the school characteristics that affect student outcomes are important variables to examine" (p. 327).

**Methodology**

*Implications for Instrument Design*

The characteristics of the Outreach Learning environment discussed above were divided into eight dimensions: (1) Student-Teacher Relationships, (2) Distributed Control, (3) Student Voice, (4) Teacher Encouragement and Support, (5) Peer Interactions, (6) Physical Environment, (7) Technology, and (8) Self-Efficacy. The conceptualization of these categories was the first step in developing the original version of the Outreach School Learning Environment Survey (OSLES).

*Instrument Design and Field Testing*

I again quote Dorn (1996) who states "Asking for the opinions of dropouts acknowledges the probability of shared responsibility for the complex phenomenon of dropping out" (as cited in Gallagher, 2002, p. 37). I often use this quote when people ask me why I decided to develop a survey. I think that, far too often, student opinions are ignored or under utilized when decisions about effective schooling are being made. When I decided to examine Outreach learning environments I deemed it important that students be given an opportunity to provide feedback on factors related to Outreach learning environments.

Once the decision to develop a survey was made, factors important to at-risk students attending Learning stores had to be selected. Based on the literature reviewed, the 'issues' used to create the original eight survey sub-scales on the OSLES were those related to; relationships, the physical features of the school, and the aforementioned classroom environmental variables related to the development of students self-efficacy. These three categories were then specifically looked at in terms of the Outreach learning environment. Ferguson, Tilleczek, Boydell, Rummens, Cote, and Roth-Edney (2005) note,

> The most commonly cited reasons offered by early school leavers for disengagement were related to school risk factors, rather than external influences. Leavers are more likely to perceive their school environment as unrewarding, have negative interactions with their teachers and experience social and academic problems. (p. 2)

Once I decided on the three main categories I was going to focus on; the schools physical features, student-teacher relationships, and student self-efficacy were important factors, I reviewed other previously constructed learning environments surveys to begin writing survey questions specific to the Learning Store environment. The purpose of dividing the above three categories into eight subscales was because the three main categories seemed too general to develop questions for. Using some of the sub-scales from the MOLES-S (Thomas, 2003) I subdivided relationships into student-student relationships (peer interactions), student-teacher discourse (student-teacher relationships), and teacher encouragement and support. Student self-efficacy was divided into sub-scales related to factors that have been shown to increase student self-efficacy (student voice and distributed control), as well as self-efficacy specifically relating to a students 'I can' attitude about their learning. The remaining category related to the physical set-up of the Learning Store environment was divided into the use of technology and the physical set-up of the school.

Questions for each of the eight sub-groups needed to be developed. Though previously constructed surveys such as the Metacognitive Orientation Learning Environment Scale – Science (MOLES-S), Constructivist Learning Environment survey (CLES), Self-Efficacy and Metacognition Learning Inventory – Science (SEMLI-S), and Questionnaire on Teacher Interactions (QTI) were used to guide the construction of items for this survey, alteration had to be made to questions so that they fit the context of Outreach learning environments. See Appendix A.

Though a questionnaire may not provide a deep personal understanding that could be obtained through interviews or other qualitative methods, it is an economical way of providing a large number of students the opportunity to have a voice and potentially

affect change. Table 1 contains the original eight sub-scales and the item numbers that fell into each. See Appendix B for the original field-tested version of the OSLES.

**Table 1.** *Item Numbers for Each of the Original Subscales on the Field-Tested Version of the OSLES.*

| Sub-scale | Original Item Numbers |
|---|---|
| Student-Teacher Relationships | 1, 2, 3, 4, 5, 6, 7, 8, |
| Distributed Control | 9, 10, 11, 12, 13, 14, 15 |
| Student Voice | 16, 17, 18, 19, 20, 21, 22 |
| Teacher Encouragement and Support | 23, 24, 25, 26, 27, 28 |
| Peer Interactions | 29, 30, 31, 32, 33, 34 |
| Physical Environment | 35, 36, 37, 38, 39, 40 |
| Technology | 41, 42, 43, 44, 45, 46, 47, 48 |
| Self-Efficacy | 49, 50, 51, 52, 53, 54, 55 |

The completed survey was distributed to six Edmonton Public Schools Learning Stores. Students registered at a Learning Store during from October 2013 to November 2013 were given the opportunity to complete the questionnaire. The data obtained from these students is considered a simple random sample of a population rather than a census since students at Outreach schools register throughout the school year and completion of the survey was voluntary. A simple random sample is considered to be an unbiased surveying technique.

Another reason for using a survey is that positivistic research still carries weight when it comes to convincing politicians and administrators of the validity and utility of a proposed change. Numbers talk! Surveys remain a popular means of gathering information in a concise manner. For example, the University of Alberta conducts course evaluations by means of a questionnaire, as does Alberta Education through surveys such

as the accountability pillar survey, and census Canada collects data to decide what services to provide to Canadians' in different regions.

According to Creswell (2009), quantitative research can be non-experimental in design, such as a survey or questionnaire. The purpose of such a study is to provide a "numerical descriptions of trends, attitudes, or opinions of a population" (p. 12). Since this survey is considered a preliminary inventory of Outreach learning environments and not an assessment of any specific alteration to an environment, it is important to gather as much data as possible to assist in the development and validation of a questionnaire that can be use to assess any future changes to Outreach learning environments.

**Ethics**

Students between the ages of 15 and 20 who attended an Edmonton Public Schools Learning Store from October 10, 2013 to December 7, 2013 were asked to complete the survey. Since this research involved individuals attending an Edmonton Public School it was necessary to obtain approval from the University of Alberta Ethics Approval Committee (HERO), as well as from Edmonton Public Schools Ethics Department (CAPS). Approval was received on July 19, 2013 from HERO and on October 10, 2013 from CAPS.

The mean age of students who took part in the survey was 17.8 years. This is higher than the average age of Learning Store students likely due to adult students being able to complete the survey immediately while minors were required to get parent/guardian consent first.

Each student received a copy of the survey (Appendix B) and the appropriate consent form that included an introductory letter naming myself as the primary researcher. My name and contact information were provided along with the name and contact information for my University of Alberta faculty advisors. The introductory letter stated the reason for conducting this research project, as well as possible future benefits to Outreach programs.

Learning Store teachers handed out the surveys to students. These teachers gave students verbal instructions on how the survey and consent forms were to be completed and returned. This information was also provided on the front page of the survey. Students were instructed to place their completed survey into one of the two envelopes

provided and the signed consent letter into the other envelope. The instruction sheet highlighted the need for anonymity and emphasized that no identifying marks were to be placed on the questionnaire.

Students' 18 or older were provided with and adult consent form (Appendix C). Adults were able to sign the consent form and complete the survey immediately. Students under 18 years of age were provided with a parent/guardian consent form (Appendix D). Minors required the consent form to be signed by a parent or guardian before being able to submit a completed survey, thus these students were required to take the consent form and survey home. Once parent/guardian consent had been obtained, students under 18 could return their completed surveys and consent forms. The same protocols were followed for all students once appropriate consent was obtained. As part of the consent form it was stated that participants could choose to stop taking part in the survey at any point by place the survey into a shredding bin. Potential participants were also informed that taking part in the survey was completely voluntary and would in no way affect their registration at their Learning Store.

Students willing to complete the survey were provided the opportunity to complete the survey in the main school area, an isolated room, or at a location of their choosing. By having students place their surveys and consent forms into envelopes and sealing them, teachers collecting the envelopes at each Learning Store location were not able to see any student response. The teachers at each Learning Store location collected the student envelopes in a single large envelope that was kept in a secure location. The large envelopes were returned to the researcher throughout the study.

Since information gathered on these surveys may be used for purposes beyond my masters project, I included a statement in the consent form indicating information obtained from questionnaires may be used by me in the future to write papers, conduct future research, be present to administrators or to the board in an attempt to affect changes to Outreach learning environments, but before this occurs it will have to be approved by a Research Ethics Board (See Appendix C and D for copies of consent forms). Possible participants were also informed that all data would be kept confidential. Only the researcher and her supervisor have access to the actual information provided on

the questionnaires and appropriate steps have been taken to ensure that no student can be linked to a specific questionnaire.

**Delimitation**

Delimitations are the boundaries of a study and conclusions not to be extended beyond the population sampled (Best & Kahn, 1989). The population sampled in this research project was primary and concurrent students registered at six different Edmonton Public School Learning Stores. Students participating in the study were between 15 to 20 years of age. The study did not examine external factors such as family structure or responsibilities that have been shown in the literature to contribute to a students' decision to leave school.

**Limitations**

Best and Kahn (1989) describe limitations as "those conditions beyond the control of the researcher that may place restrictions on the conclusions of the study and their applications to other situations" (p. 38). Though the questionnaire will be analyzed to determine question and response validity, the responses provided by students will be assumed to be accurate representations of their opinions. As the questionnaire is designed to reflect Outreach learning environments, its direct transferability to traditional school or classroom settings may not be appropriate.

**Analysis of Results**

The number of students registered at Learning Stores at the end of the survey period was 507. This number does not account for student who had been withdrawn during the duration of the survey. A total of 120 surveys were returned. Thus, less than 24% of the student population responded to the survey. Of the 120 students who returned surveys, 87 were female and 37 were male.

Analytic procedures have been used in the development of other learning environments surveys (Fraser, Giddings, & McRobbie, 1995; Schultz-Jones & Ledbetter, 2013; Thomas, 2003; Ward & Fisher, 2013; as stated in Thomas, Meldrum, & Beamish, 2013). Students taking part in the survey were required to responded on a Likert scale using; strongly disagree, disagree, no opinion, agree, strongly agree and were scored 1, 2, 3, 4 and 5 respectively. SPSS was used to analyzed the data by conducting a factoral analysis followed by varimax rotation and estimation of the internal consistency as

represented by Cronbach alpha coefficients. Transformations were conducted to check the validity and reliability of the Outreach School Learning Environment Survey. The use of a factor reduction using a varimax rotation is supported in the literature (see, for example, Reise, Waller & Comfrey, 2000). When the factor analysis was completed on the original items it was determined that some questions did not load onto other sub-scales. This resulted in the refinement of the initial 55-item instrument through the deletion of some items. After removal of some of the items a final factor analysis was done. The results of the final factor analysis are found on Table 2.

Upon examination of the questions that were grouped together into each subscale it was determined that some of the subscales needed to be named. See Table 3 for a comparison of the original subscale titles and the final version subscale titles, as well as the number of items in each subscale.

An estimation of the internal consistency for each sub-group was completed using Cronbach alpha coefficients, which is supported by work done by Tavakol and Dennick, 2011. The Cronbach alpha coefficient for all sub-scales was determined to be >0.700 indicating strong internal consistency between the items in each of the sub-scales (Table 4).

The subscale item means for 7 out of the 8 subscales was ≥4.000. This indicates that the majority of students perceive their Learning Store environment to be achieving the factors that were selected by the researcher as being important to Outreach learning environments. From personal experience I can say that Learning Store teachers are experts at creating supportive environments for students, creating positive relationships, and providing students with positive feedback and encouragement. It is also not surprising that students scored positively on the self-efficacy subscale. Students who choose to attend an Outreach school do so because they want to achieve a high school diploma and believe they are capable of achieving it. If they did not have an 'I can' attitude they would likely choose not to continue their education. The high score for the student voice and distributed control subscales was surprising. Since the student voice subscale has only 2 items, it may not be an adequate representation. Learning Store modules must be completed in a predetermined order and students do not have a choice as to which assessment they have to complete or which assignments they get assessed on.

**Table 2.** *Factor Loadings of Items in the Refined Version of the OSLES (Loadings <0.4 omitted)*

| | Fac1 | Fac2 | Fac3 | Fac4 | Fac5 | Fac6 | Fac7 | Fac8 |
|---|---|---|---|---|---|---|---|---|
| 29 | 0.902 | | | | | | | |
| 30 | 0.893 | | | | | | | |
| 31 | 0.803 | | | | | | | |
| 32 | 0.757 | | | | | | | |
| 33 | 0.740 | | | | | | | |
| 34 | 0.651 | | | | | | | |
| 1 | | 0.833 | | | | | | |
| 2 | | 0.827 | | | | | | |
| 3 | | 0.758 | | | | | | |
| 4 | | 0.698 | | | | | | |
| 5 | | 0.652 | | | | | | |
| 6 | | 0.586 | | | | | | |
| 41 | | | 0.833 | | | | | |
| 42 | | | 0.790 | | | | | |
| 43 | | | 0.768 | | | | | |
| 44 | | | 0.703 | | | | | |
| 45 | | | 0.545 | | | | | |
| 49 | | | | 0.786 | | | | |
| 50 | | | | 0.783 | | | | |
| 51 | | | | 0.623 | | | | |
| 53 | | | | 0.610 | | | | |
| 55 | | | | 0.555 | | | | |
| 23 | | | | | 0.739 | | | |
| 24 | | | | | 0.689 | | | |
| 28 | | | | | 0.647 | | | |
| 39 | | | | | 0.609 | | | |
| 9 | | | | | | 0.780 | | |
| 13 | | | | | | 0.775 | | |
| 14 | | | | | | 0.718 | | |
| 15 | | | | | | 0.577 | | |
| 16 | | | | | | | 0.826 | |
| 17 | | | | | | | 0.758 | |
| 18 | | | | | | | | 0.639 |
| 19 | | | | | | | | 0.615 |
| 27 | | | | | | | | 0.477 |

**Table 3.** *Comparison of Original Subscales and Final Version Subscales*

| Original Subscale Title | Final Version Subscales |
|---|---|
| Student-Teacher Relationships (8) | Student –Teacher Relationships (3) |
| Distributed Control (7) | Distributed Control (4) |
| Student Voice (7) | Student Voice (2) |
| Teacher Encouragement/Support (6) | Teacher Encouragement (4) |
| Peer Interactions (6) | Peer Interactions (6) |
| Physical Environment (6) | Students Perceptions of Teachers (6) |
| Technology (8) | Technology (5) |
| Student Self-Efficacy (7) | Student Self-Efficacy (5) |

***Table 4***. *Internal Consistency (Cronbach's Alpha Coefficient), Subscale Item Means, and Variances for the Refined Outreach School Learning Environment Survey (OSLES)*

| Refined Sub-Scale & Number of Items | Alpha Reliability (Cronbach's) | Sub-scale Item Mean | Variances |
|---|---|---|---|
| Peer Interactions (6) | 0.897 | 3.000 | 0.124 |
| Student Perceptions of Teachers (6) | 0.848 | 4.661 | 0.023 |
| Technology (5) | 0.832 | 4.103 | 0.067 |
| Self-efficacy (5) | 0.752 | 4.163 | 0.072 |
| Teacher Encouragement (4) | 0.829 | 4.240 | 0.018 |
| Distributed Control (4) | 0.743 | 4.178 | 0.101 |
| Student Voice (2) | 0.901 | 4.404 | 0.001 |
| Student-Teacher Relationships (3) | 0.750 | 4.003 | 0.035 |

The distributed control subscale was also positive. Students do have some say in what course they take though they tend to believe that teachers know best and thus prefer to have teachers guide their educational choices. The peer interactions subscale scored 3.000. This is not surprising as students are not encouraged to collaborate on their schoolwork. The flexibility of the students schedule and the instructional methods used do not require students to interact with one another. This might be an area that needs to be further addressed. Since the Government of Alberta Department of Education is in the process of implementing its new curriculum redesign strategy, collaboration with peers will become an important part of how students are expected to learn (Government of Alberta, 2010). Overall students perceive Learning Store environments to be meeting their educational needs based on the learning environment factors that the literature describes as being the best practices when dealing with at-risk students.

Determining discriminant validity tests whether concepts or measurements that are supposed to be unrelated are, in fact, unrelated (see Campell & Fiske, 1959). Discriminant validity analysis using Pearsons Correlation was done on all eight sub-scales of the OSLES (Table 5).

**Figure 3.** *Guidelines for Interpreting Positive or Negative Pearson Correlations*

| | Coefficient, *r* | |
|---|---|---|
| Strength of Association | Positive | Negative |
| Small | .1 to .3 | -0.1 to -0.3 |
| Medium | .3 to .5 | -0.3 to -0.5 |
| Large | .5 to 1.0 | -0.5 to -1.0 |

https://statistics.laerd.com/statistical-guides/pearson-correlation-coefficient-statistical-guide.php

The Pearson correlation coefficient measured above is a measure of the strength of the linear relationship between two variables. An 'r' coefficient of 1 indicates a strong positive correlation, a coefficient of -1 indicates a strong negative correlation, and a coefficient of 0 indicates no correlation (Figure 3).

**Table 5.** *Pearson Correlations for OSLES Subscales*

| Correlations | | Fac1 | Fac2 | Fac3 | Fac4 | Fac5 | Fac6 | Fac7 | Fac8 |
|---|---|---|---|---|---|---|---|---|---|
| Fac1 | Pearson Correlation | 1 | .068 | .266** | .174 | .342** | .206* | .249** | .421** |
| | Sig. (2-tailed) | | .462 | .004 | .059 | .000 | .026 | .006 | .000 |
| | N | 119 | 118 | 118 | 119 | 119 | 117 | 119 | 119 |
| Fac2 | Pearson Correlation | .068 | 1 | .297** | .314** | .535** | .339** | .322** | .424** |
| | Sig. (2-tailed) | .462 | | .001 | .001 | .000 | .000 | .000 | .000 |
| | N | 118 | 119 | 118 | 119 | 119 | 117 | 119 | 119 |
| Fac3 | Pearson Correlation | .266** | .297** | 1 | .419** | .312** | .216* | .421** | .404** |
| | Sig. (2-tailed) | .004 | .001 | | .000 | .001 | .019 | .000 | .000 |
| | N | 118 | 118 | 119 | 119 | 119 | 117 | 119 | 119 |
| Fac4 | Pearson Correlation | .174 | .314** | .419** | 1 | .390** | .215* | .505** | .440** |
| | Sig. (2-tailed) | .059 | .001 | .000 | | .000 | .019 | .000 | .000 |
| | N | 119 | 119 | 119 | 120 | 120 | 118 | 120 | 120 |
| Fac5 | Pearson Correlation | .342** | .535** | .312** | .390** | 1 | .421** | .450** | .563** |
| | Sig. (2-tailed) | .000 | .000 | .001 | .000 | | .000 | .000 | .000 |
| | N | 119 | 119 | 119 | 120 | 120 | 118 | 120 | 120 |
| Fac6 | Pearson Correlation | .206* | .339** | .216* | .215* | .421** | 1 | .260** | .435** |
| | Sig. (2-tailed) | .026 | .000 | .019 | .019 | .000 | | .005 | .000 |
| | N | 117 | 117 | 117 | 118 | 118 | 118 | 118 | 118 |
| Fac7 | Pearson Correlation | .249** | .322** | .421** | .505** | .450** | .260** | 1 | .511** |
| | Sig. (2-tailed) | .006 | .000 | .000 | .000 | .000 | .005 | | .000 |
| | N | 119 | 119 | 119 | 120 | 120 | 118 | 120 | 120 |
| Fac8 | Pearson Correlation | .421** | .424** | .404** | .440** | .563** | .435** | .511** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | .000 | |
| | N | 119 | 119 | 119 | 120 | 120 | 118 | 120 | 120 |

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Originally three main categories were identified; student self-efficacy, relationships, and physical environment. These three categories were then dividend into eight subscales; (1) Peer Interactions, (2) Student Perceptions of Teachers, (3) Technology, (4) Self-efficacy, (5) Teacher Encouragement, (6) Distributed Control, (7) Student Voice, and (8) Student-Teacher Relationships. Based on the above guidelines there is a large correlation between sub-scales 2 and 5, 4 and 7, 5 and 8, and 7 and 8. These correlations are not surprising. Sub-scale 2 "student perceptions of teachers" and sub-scale 5 "teacher encouragement" both examine how students view their teachers. Sub-scale 4 "student self-efficacy" and sub-scale 7 "student voice" both link to student self-efficacy. Sub-scales 5 "Teacher encouragement" and sub-scale 8 "student-teacher relationships" fit into the category of building relationships. Sub-scale 7 "student voice" and sub-scale 8 "student-teacher relationships" were originally derived from two different main categories. However as indicate in the literature review, student voice has been shown to be dependent on the quality of the relationship a student has with his or her teacher. The fact that there are a number of medium correlations is expected since all eight sub-scales were designed to measure different aspect of an Outreach learning environment. For the eight sub-scales the mean inter-item correlation is 0.347 and the Kendell's coefficient of correspondence W was calculated to be 0.280. "The Kendall (1955) rank correlation coefficient evaluates the degree of similarity between two sets of ranks given to a same set of objects" (Abdi, 2007 p. 1). The eight subscales of the final OSLES were ranked in comparison to one another to determine the amount of overlap between the eight scales. "Kendall coefficient of correlation is obtained by normalizing the symmetric difference such that it will take values between −1 and +1 with −1 corresponding to the largest possible distance (obtained when one order is the exact reverse of the other order) and +1 corresponding to the smallest possible distance (equal to 0, obtained when both orders are identical)" (Abdi, 2007 p. 2). Since the Kendell coefficient is 0.280 and a positive value it indicates a high degree of similarity between the subscales. The inter-item correlation is descriptive information about the correlation of each item with the sum of all remaining items. An inter-item correlation of 0.347 indicates that there is minimal correlation between items of one subscale and the items of other subscales. Thus, the items included in each subscale are valid even if there is overlap between subscales. The

instrument's ability to discriminate between the six different Learning Stores has not been included in this paper as this could cause fragmentation between locations, which is not the purpose of this research project. Learning Stores are by necessity located at physically different locations throughout the city, but they are still a single school.

**Summary**

The eight refined sub-scales generated by SPSS factor reduction technique were renamed and resulted in 35 of 55 items being kept. Cronbach alpha analysis verified internal consistency for the eight sub-scales. Though the discriminant analysis showed some overlap between the sub-groups it was decided that these overlaps were not unexpected and thus no alterations to the 35 items were made. The reconceptualized version of the OSLES can be found in Appendix E. A brief summary of the final eight sub-scales, a brief description of each sub-scale and a sample question from each subscale is provided in Table 6 below.

The original survey consisted of 6 stratification questions; age, gender, Learning Store location, length of time attending a Learning Store, number of courses completed at a Learning Store, and reason for attending an Outreach school. These stratification questions remain in the final version of the survey though they can be modified or excluded if needed, as they were not considered in the factor analysis and construction of the eight subscales in the final survey version. The reason for including these stratification questions was to identify any possible trends between different types of students attending Outreach schools.

**Discussion**

Outreach schools such as Edmonton Public Schools Learning Stores are unique learning environments that are significantly different from the traditional learning environments that students are familiar with. Students who seek out Learning Stores do so because they have experienced difficulties or failures in traditional high school settings. Many of the students who register at a Learning Store have already dropped out of a traditional high school. Students who drop out of school do so for many reasons; however, just because they dropped out of school does not mean they do not want a high school diploma.

**Table 6.** *Descriptions of Refined Eight Subscales and a Sample Item for Each of the Subscale*

| Scale Name | Description (Extent to which students:) | Sample item: (at my learning store) |
|---|---|---|
| Peer Interactions | …perceive they are interacting with their peer in the Learning Store. | I talk to other students at the school |
| Student Perceptions of Teachers | …view their teachers as positive figures. | My teachers are friendly |
| Technology | … perceive technology will help them learn. | My use of technology helps me learn |
| Self-Efficacy | … perceive they can be successful in their educational goals. | I can meet my learning goals |
| Teacher Encouragement | …perceive their teachers to be encouraging. | The teachers encourage me to improve my learning |
| Distributed Control | …student perceive they have a say in their learning. | I have a say in what courses I take |
| Student Voice | … perceive they can express their opinions to teachers. | I am comfortable telling my teachers when I do not understand something |
| Student-Teacher Relationships | …students perceive the relationships they have with teachers to be egalitarian. | I am comfortable disagreeing with my teacher |

The uniqueness and lack of research on Outreach schools made the construction of the OSLES challenging. Determining what factors are important to Outreach schools was straightforward, how to frame the questions corresponding to those factors was challenging. The interactions students have with staff, teachers, peers, and technology cannot be compared to those that occur in traditional schools. It is not surprising that twenty of the original questions did not load onto the eight original sub-scales. Since some items were based on pre-existing learning environments surveys that were designed

for traditional classrooms, it is reasonable to expect that item relevance might not be consistent within different learning environments.

In developing the final version of the OSLES refinements were made to the original eight subscales based on the data analysis that was done using SPSS. In Table 3 above it was noted that the subscale for physical environment no longer appeared in the refined version of the OSLES. Most of the items that had been constructed to examine student perceptions of the physical aspects of Learning Store environments do not appear on the refined version of the survey. This indicates that the range of student variability in relation to how students view the physical features of Learning Store such as comfort and access is too great. Other items that had originally been assigned to certain subscales were found to correlate better with other subscales or each other and thus appear in different subscales than they had originally been placed in. Since some of the items were found to correlate better to one another than to items from their original subscale a new subscale that included these reconceptualized items was renamed as 'student perceptions of teachers'.

Table 7 lists the questions from the original survey whose mean score were <3.500 on the Likert scale indicating a greater number of students disagreed with these items.

The majority of students did not respond positively to questions 11 and 12. These two questions do not appear on the final version of the OSLES as they did not load onto the distributed control subscale. It is not surprising that students responded positively to questions about having a say in what courses they take of how much time they spend on courses. The flexibility of Outreach programs allows students to take responsibility for this part of their learning. However, since students work in modules and are assessed on the entire module, students do not have a say in what assignments they do or how they are graded on those assignments. This is an area that Learning Stores may wish to address as the Government of Alberta's Inspiring Education Curriculum redesign is based on student centered learning where students are provide greater choice in what they need to learn and how they are assessed on it. Most of the students did not respond positively to questions 29, 31, 32, 33, and 34, which loaded onto the peer interactions subscale.

**Table 7.** *Questions With a Greater Number of Negative Responses*

| Question # | Question | Mean | Sub-scale |
|---|---|---|---|
| 11 | I have a say in which of my assignments are graded. | 2.6639 | Distributed Control |
| 12 | I have a say in how my assignments are graded. | 2.6583 | Distributed Control |
| 29 | I discuss my schoolwork with other students to help me improve my learning. | 2.6083 | Peer interactions |
| 31 | I have opportunities to discuss my schoolwork with other students in school. | 3.2167 | Peer interactions |
| 32 | Peer interactions are encouraged in school. | 3.0417 | Peer interactions |
| 33 | I talk to other students at the school. | 2.7731 | Peer interactions |
| 34 | I interact with other students. | 2.8167 | Peer interactions |

As mentioned earlier, interaction between students is not encouraged. The original survey question that students responded favorably to ask them if the peer interactions they did have were positive. Generally, students who attend Learning Stores are more mature. Many are over 18, parenting, or working. The cliques that are found in

traditional high schools are not prevalent in Learning Stores. What little interaction there is between students is mainly friendly.

The responses students provided to the above questions, indicating that they perceived these things are happening to a lesser degree in their Learning Store; however, it cannot be determined if students want these things to happen. For example, the survey cannot determine whether students want a greater say in which assignments are graded or how they are graded, nor can it be determined if students want greater interactions with peers or not. Since the OSLES is an actual form instrument it measures what is occurring in Outreach learning environments. A future research project could develop a preferred form of the instrument to examine what students would prefer in their Outreach learning environment. However, since the literature has indicated that increased distributed control and peer interactions have positive effects on learner outcomes these two areas may be places where Learning Stores can make some changes. Through the use of technology student collaboration could be increased as students could use social media, blogs, or Google docs to share information about their work at various points in a course. Technology could also increase the amount of control students have over which assignments they do and how they are assessed. By providing students choices in the modules they could select assignments that are relevant to them and determine how they will present the material they learn.

**Conclusions**

This project has described the development and validation of the 35-item instrument, the OSLES (Outreach School Learning Environment Survey). The statistical data gather and the literature reviewed indicates that the OSLES is a valid instrument that can be used in Outreach schools to gather information about the schools learning environment from students. The sub-scales are consistent with the factors that have been shown by previous researchers to be important parts of learning environments and have positive outcomes with at-risk students. However, this survey is not meant to address all issues that may be present in Outreach learning environments. This is true of most surveys. Surveys by their very nature can only measure what they are designed to measure and nothing more. This survey is meant to be a starting point when looking at modifications that might be made to Outreach environments. Now that base-line data has

been obtained from the six Edmonton Public School's Learning Stores, it can be used to monitor how students perceive any changes made with respect to peer interactions. However, since the questions about distributed control that students responded negatively to are not on the final version of the OSLES, the survey cannot be used to assess if changes to modules that provide students with more assignment and assessment choices would be perceived as positive. It can be used to determine if student perceptions about peer interactions increases if collaboration and interaction are required through technology. However, it cannot determine if students favor the changes or not, just that they have been made. Therefore it would be appropriate to combine the use of surveys with other, qualitative methods such as interviews.

It is my view that more research should be done on Outreach learning environments, as they are viable options for decreasing high school dropout rates. If appropriate modifications were made to these types of programs more at-risk students may choose to attend Outreach schools than simply dropout. The best way to determine what modifications should be made is to utilize the research that has been done in traditional learning environments and modify it to fit the Outreach school structure. Students can also provide important information in determining the direction such changes should take.

**References**


Abdi, H. (2007). *The Kendall rank correlation coefficient.* Thousand Oaks (CA): Sage. Retrieved February 25, 2014 from; https://www.utdallas.edu/~herve/Abdi-KendallCorrelation2007-pretty.pdf

Abell, S. K. & Lederman, N. G. (2007). *Handbook of Research on Science Education*. Routledge: Taylor and Francis group; New York.

Afolayan, J. A. (1991). Retention policy and school dropout rate: Implications for professional educators. *The High School Journal, 74*(4), 220-224.

Alberta School Boards Association (2010). Improving high school completion. *Alberta School Board Perspectives.* Retrieved from: http://www.asba.ab.ca/files/pdf/high_school_completion_report.pdf

Alberta Education (2012). Digital citizenship policy development guide. Retrieved from: http://education.alberta.ca/media/6735100/digital%20citizenship%20policy%20development%20guide.pdf

Alberta Learning (2009). Outreach programs handbook. Edmonton, AB: Alberta Learning. Retrieved from: http://www.education.alberta.ca/media/434525/outreach%20program %20handbook-revised%20april%208%202010.pdf.

Antone, E. M. (2003). The changing face of Aboriginal education in rural and northern Canada. *Education Canada, 43*(3), 25-27.

Ball, A. F. (2002). Three decades of research on classroom life: Illuminating the classroom communicative lives of America's at-risk students. *Review of Research in Education, 26*, 71-111.

Bandura, A. (2006). Guide for constructing self-efficacy scales. In Urdan, T. C., & Pajares, F. (Eds.). *Self-efficacy Beliefs of Adolescents*. (pp. 307-338). Greenwich, Conn: IAP - Information Age Pub.

Best, J. W., & Kahn, J. V. (1989). *Research in education*. Englewood Cliffs, NJ, Prentice Hall.

Brantlinger, E. (1993). *The politics of social class in secondary school: Views of affluent and impoverished youth*. New York: Teachers College Press.

Britzman, D. (1990). *Practice makes practice: A critical study of learning to teach.* New York: State University of New York Press.

Campell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, *56*, 81-105.

Campolieti, M., Fang, T., & Gunderson, M. (2010). Labour market outcomes and skill acquisition of high-school dropouts. *Journal of Labor Research, 31*(1), 39-52.

Christle, C. A., Jolivette, K., & Nelson, C. (2007). School characteristics related to high school dropout rates. *Remedial & Special Education, 28*(6), 325-339.

Cole, M. (2009). Using Wiki technology to support student engagement: Lessons from the trenches. *Computers & Education*, *52*(1), 141-146.

Conference Board of Canada (2013). High-school completion. Retrieved January 1, 2014 from; http://www.conferenceboard.ca/hcp/details/education/high-school-graduation-rate.aspx

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed method approaches*. Thousand Oaks, Calif: Sage Publications.

Daniels, J., Friesen, S., Jacobsen, M., & Varnhagen, S. (2012). Technology and high school success research: Final report. Retrieved from, http://education.alberta.ca/admin/technology/research.aspx.

Davis, K. S. M. S. W., & Dupper, D. R. P. D. (2004). Student-teacher relationships. *Journal of Human Behavior in the Social Environment, 9*, 179-193.

DeBlois, R. (1989). Keeping at-risk students in school: Toward a curriculum for potential dropouts. *Nassp Bulletin. 73*(516), 6-12.

Dewey, J. (1966). *Democracy and education: An introduction to the philosophy of education*. New York: Free Press.

Dorn, S. (1996). *Creating the dropout: An institutional and social history of school failure*. Westport, CT: Praeger.

Duke, D., & Perry, C. (1978). Can alternative schools succeed where Benjamin Spöck, Spiro Agnew, and B.F. Skinner have failed? *Adolescence, 13(51)*, 374-392.

Ebrahimi, N. A. (2013). Constructivist translation classroom environment survey (CTLES): Development, validation and application. *Translation & Interpreting, 5*(2), 163-186.

Ekstrom, R. B., Goertz, M. E., Pollack, J. M., & Rock, D. A. (1986). Who drops out of high school and why? Findings from a national study. *Teachers College Record, 87*(3), 356-373.

Ferguson, B., Tilleczek, K., Boydell, K., Rummens, J.A., Cote, D., & Roth-Edney, D. (2005). Early school leavers: Understanding the lived reality of student disengagement from secondary school. Retrieve from: http://www.edu. gov.on.ca/eng/parents/schoolleavers.pdf

Fisk, B. (1994). Urban school dropouts: A case study. Unpublished doctoral thesis, University of Alberta.

Fortune, J. C., Bruce, A., Williams, J., & Jones, M. (1991). What does the evaluation of your dropout prevention program show about its success? ... Maybe not enough. *The High School Journal, 74*(4), 225-231.

Fraser, B. J., Giddings, G. J. & McRobbie, C. J. (1992). Assessment of the psychosocial environment of university science laboratory classrooms: A cross national study. *Higher Education, 34*, 431-451.

Fraser, B. J., Giddings, G. J. & McRobbie, C. J. (1995). Evolution and validation of a personal form of an instrument for assessing science laboratory classroom environments. *Journal of Research in Science Teaching, 32*(4), 399-422.

Friend, J. & Caruthers, L. (2012). Reconstructing the cultural context of urban schools: Listening to the voices of high school students. *Educational Studies, 48*, 366-388. DOI:10.1080/00131946.2011.647152.

Gallagher, C. J. (2002). Stories from the strays: What dropouts can teach us about school. *American Secondary Education, 30*(3), 36–60.

Gilakjani, A. P., Leong, L., & Ismail, H. N. (2013). Teachers' use of technology and constructivism. *Modern Education and Computer Science, 4*, 49-63. DOI: 10.5815/ijmecs.2013.04.07.

Grabinger, R. S. & Dunlop, J. C. (1995) Rich environments for active learning: A definition. *Association for Learning Technologies Journal, 3*(2), 5-34.

Government of Alberta. (2010). Inspiring action on education. Retrieved February 10, 2014 from; http://ideas.education.alberta.ca/media/2905/inspiringaction %20eng.pdf.

Hahn, A. (1987). Reaching out to America's dropouts: What to do? *Phi Delta Kappan, 67*(4), 256-262.

Hartnagel, T. F., Krahn, H., & Lowe, G. S. (1986). Schools and the transition to work in Edmonton: Youth employment, underemployment, and unemployment. Unpublished research report presented to Edmonton Public School System.

Housego, B. E. (1999). Outreach schools: An educational innovation. *Alberta Journal of Educational Research, 45*(1), 85-101.

Hymel, S., C., Schonert-Reichl, K., & McDougall, P. (1996) *Academic failure and school dropout: The influence of peers.* In: J. Juvonen & K. R. Wentzel (Eds) Social Motivation: Understanding children's school adjustment, pp. 313–345. Cambridge: Cambridge University Press.

Kendall, M.G., (1955). Rank correlation methods. New York: Hafner Publishing Co.

Kozicka, P. (2013). Are Edmonton's public schools making the grade? Retrieved January 1, 2014 from: http://globalnews.ca/news/879172/are-edmonton-public-schools-making-the-grade/.

McCann, R. A., & Austin, S. (1988). *At-risk youth: Definitions, dimensions and relationships*. Philadelphia, PA: Research for Better Schools Inc.

Mesch, G. S. (2012). Technology and youth. *New Directions For Youth Development, 2012*(135), 97-105. DOI:10.1002/yd.20032

Meyer, D.K., & Tumer, J.C. (2006). Re-conceptualizing emotion and motivation to learn in classroom contexts. *Educational Psychology Review, 18*, 377-390.

Moos, R. H (1979). *Evaluating educational environments: Procedures, measures, findings, and policy implications.* San Francisco, CA: Jossey-Bass.

Oreopoulos, P. (2005). Stay in school: New lessons on the benefits of raising the legal school-leaving age. C.D. Howe Institute Education Paper No. 223. Retrieved from: www.cdhowe.org/pdf/commentary_223.pdf.

Parker, J.G., & Asher, S.R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin, 102*, 357–389.

Pitkaniemi, H. & Vanninen, P. (2012). Leaning attainments as a result of student activity, cognition and the classroom environment. *Problems of Education in the 21st Century, 41*, 75-86.

Popp, P. A., Grant, L. W., & Stronge, J. H. (2011). Effective teachers for at-risk or highly mobile students: What are the dispositions and behaviors or award-winning teachers? *Journal of Education for Students Placed at Risk, 16*, 275–291. DOI: 10.1080/10824669.2011.610236.

Reynolds, D. & Muijs, D. (1999). The effective teaching of mathematics: A review of research. *School Leadership and Management, 19*(3), 273-288.

Reise, S. P., Waller, N. G., & Comfrey, A. L. (2000). Factor analysis and scale revision. *Psychological Assessment, 12*, 287-297.

Rubio, M. C. (2009). Effective teachers-professional and personal skills, Ensayos, Revista de las Facultad de Educacion de Albacete, 24. Retrieved December 19, 2014, from: http://www.uclm.es/ab/educacion/ensayos.

Rumberger, R. (1987). High school dropouts: A review of issues and evidence. *Review of Educational Research, 57*(2), 101-121. Retrieved from: http://www.jstor.org/stable/1170232.

Schultz-Jones, B. A., & Ledbetter, C. E. (2013). Evaluating students' perceptions of library and science inquiry: Validation of two new learning environment questionnaires. *Learning Environments research, 16*(3), 329-348.

Siegle, D. (2000). An introduction to self-efficacy. Retrieved January 1, 2014 from; http://www.gifted.uconn.edu/siegle/selfefficacy/section1.html

Stronge, J. H. (2007). *Qualities of effective teachers (2nd ed.).* Alexandria, VA: Association for Supervision and Curriculum Development.

Suh, S., & Suh, J. (2007). Risk factors and levels of risk for high school dropouts. *Professional School Counseling, 10*(3), 297-306.

Suh, S, Suh, J, and Houston, I. (2007). Predictors of categorical at-risk high school dropouts. *Journal of Counseling & Development, 85*, 196-203.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education, 2*, 53-55.

Taylor, P, Fraser, B., & Fisher, D. (1997). Monitoring constructivist classroom learning environments. *International Journal of Educational Research, 27*(4), 293-302. DOI. 10.1016/X0883-0355(97)90011-2.

Thomas, G. P. (2003). Conceptualisation, development and validation of an instrument for evaluating the metacognitive orientation of science classroom learning environments: The Metacognitive Orientation Learning Environment Scale – Science (MOLES-S). *Learning Environments Research, 6*(2), 175–197.

Thomas, G. P., Anderson, D., & Nashon, S. (2008). Development of an instrument designed to investigate elements of science students' metacognition, self-efficacy and learning processes: The SEMLI-S. *International Journal of Science Education, 20*(13), 1701-1724.

Thomas, G. P., & McRobbie, C. J. (2001). Using a metaphor for learning to improve students' metacognition in the chemistry classroom. *Journal of Research in Science Teaching, 38*, 222–259.

Thomas, G. P., & Mee, D. A. (2005). Changing the learning environment to enhance students' metacognition in Hong Kong primary school classrooms. *Learning Environments Research, 8*, 221-243.

Thomas, G. P., Meldrum, A., & Beamish, J. (2013). Conceptualization, development and validation of an instrument for investigating elements of undergraduate physics laboratory learning environments: The UPLLES (undergraduate physics laboratory learning environment survey). *European Journal of Physics Education, 4*(4), 26-40.

Tidwell, R. (1988). Dropouts speak out: Qualitative data on early school departures. *Adolescence, 23*(92), 939-954.

Valverde, S. A. (1987). A comparative study of Hispanic high school dropouts and graduates: Why do some leave school early and some finish? *Education and Urban Society, 19*(3), 320-329.

Vitaro, F., Larocque, D., Janosz, M., & Tremblay, R. (2001). Negative social experiences and dropping out of school. *Educational Psychology, 21*, 401–415.

Walberg, H. J., & Anderson, G. J. (1968). Classroom climate and individual learning. *Journal of Educational Psychology, 59*, 414-419.

Ward, G., & Fisher, D. L. (2013). Development and use of an instrument for assessing the department-level work environment: the department-level environment questionnaire (DLEQ). *Learning Environments Research, 16* (1), 113-130.

Williams, S. B. (1987). A comparative study of black dropouts and black high school graduates in an urban public school system. *Education and Urban Society, 19*(3), 311-319.

Wubbels, T., Creton, H. A., & Hooymayers, H. P. (1985, April). *Discipline problems of beginning teachers, interactional behavior mapped out*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Zimmerman, B. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology, 25*(1), 82-91.

## Appendix A

*Comparison of Survey Questions with Question from Previously Developed Surveys*

| Developed Survey Question Number | Developed Survey Question | Original Survey Question | Name of Original Survey |
|---|---|---|---|
| 1 | My teachers are friendly. | This teacher is friendly.<br>The teacher is friendly to me. | QTI<br><br>CLES |
| 2 | My teachers are approachable. | Researcher Developed | |
| 3 | My teachers are helpful. | This teacher helps us with our work.<br>The teacher helps me with the work. | QTI<br><br>CLES |
| 4 | My teachers care about my learning. | Researcher Developed | |
| 5 | My teachers show interest in my problems. | The teacher is interested in my problems. | CLES |
| 6 | I respect my teachers. | Researcher Developed | |
| 7 | My teachers trust me. | This teacher trusts us.<br>Students and the teacher trust each other. | QTI<br><br>MOLES-S |
| 8 | I trust my teachers. | | MOLES-S |
| 9 | I have a say in deciding how much time I spend on modules. | Students help the teacher decide how much time they spend on activities.<br>I help the teacher to decide how much time I spend on activities. | MOLES-S<br><br><br><br>CLES |
| 10 | I have a say in deciding which modules I do first. | Researcher Developed | |
| 11 | I have a say in which of my assignments are graded. | Students help the teacher decide which activities they do. | MOLES-S |
| 12 | I have a say in how my | Students help the | MOLES-S |

| | | | |
|---|---|---|---|
| | assignments are graded. | teacher to decide which activities are best for them.<br>I help the teacher to assess my learning. | CLES |
| 13 | I have a say in what courses I take. | Researcher Developed | |
| 14 | I have a say in how much time I spend in school. | Researcher Developed | |
| 15 | I have a say in deciding how much time I spend on a course. | Researcher Developed | |
| 16 | I am comfortable telling my teachers when I do not understand something. | It is OK for students to tell the teacher when they don't understand science. | MOLES-S |
| 17 | I am comfortable asking my teachers for help with my work. | Researcher Developed | |
| 18 | I am comfortable asking why I have to do certain activities. | It's OK to ask the teacher "why do we have to learn this?" | CLES |
| 19 | I am comfortable disagreeing with my teachers. | It's OK to express my opinion. | CLES |
| 20 | I discuss how well I am learning with my teachers. | Students discuss with the teacher about how they learn science. | MOLES-S |
| 21 | I discuss how I can improve my learning with my teachers. | Students discuss with the teacher about how they can improve their learning of science. | MOLES-S |
| 22 | I can discuss with my teachers what needs to be learned. | Students help the teacher plan what needs to be learned. | MOLES-S |
| 23 | The teachers encourage | Researcher Developed | |

| | | | |
|---|---|---|---|
| | me to improve my learning. | | |
| 24 | The teachers encourage me to talk to them about my learning. | The teacher encourages students to talk with each other about how they learn science. | MOLES-S |
| 25 | The teachers provide the support I need to be successful in school. | Teacher supports students who try to improve their science learning. | MOLES-S |
| 26 | The teachers encourage me to pursue my career goals. | Researcher Developed | |
| 27 | The teachers support the decisions I make about my schooling. | Researcher Developed | MOLES-S |
| 28 | The teachers encourage me to challenge myself. | The teacher encourages students to try to improve how they learn science. | MOLES-S |
| 29 | I discuss my schoolwork with other students to help me improve my learning. | Students discuss with each other about how they can improve their learning of science. | MOLES-S |
| 30 | The interactions I have with my peers at school are positive. | Researcher Developed | |
| 31 | I have opportunities to discuss my schoolwork with other students at school. | I talk with other students about how to solve problems. | CLES |
| 32 | Peer interactions are encouraged in school. | Researcher Developed | |
| 33 | I talk to other students at the school. | I get the chance to talk to other students. | CLES |
| 34 | I interact with other students. | Researcher Developed | |

| | | | |
|---|---|---|---|
| 35 | The physical set-up of the Learning Store is comfortable. | Researcher Developed | |
| 36 | The Learning Store hours work well for me. | Researcher Developed | |
| 37 | I have access to learning materials. | Researcher Developed | |
| 38 | I have access to counseling services. | Researcher Developed | |
| 39 | The Learning Store environment helps me learn. | Researcher Developed | |
| 40 | The Learning Store location is easy for me to get to. | Researcher Developed | |
| 41 | My use of technology helps me learn. | Researcher Developed | |
| 42 | My use of technology is enough for my needs. | Researcher Developed | |
| 43 | My use of technology motivates me to do school work. | Researcher Developed | |
| 44 | My use of technology is well supported in the school. | Researcher Developed | |
| 45 | I am comfortable using technology. | Researcher Developed | |
| 46 | I have access to technology outside of school. | Researcher Developed | |
| 47 | My teachers' use of technology helps me learn. | Researcher Developed | |
| 48 | There is adequate technology available to me at my school. | Researcher Developed | |
| 49 | I am confident that I am | I know I can understand | SEMLI-S |

| | | | |
|---|---|---|---|
| | learning the material I need to. | the most difficult material presented in the readings for this course. | |
| 50 | I can meet my learning goals. | Researcher Developed | |
| 51 | I am making progress towards my future goals. | Researcher Developed | |
| 52 | I can understand the material presented in the modules. | I'm confident of understanding the most complex material presented by the teacher in this course. | SEMLI-S |
| 53 | I can master this course on my own. | Researcher Developed | |
| 54 | I am confident I can do a good job on assignments and tests. | I'm confident of understanding the basic concepts taught in this course. | SEMLI-S |
| 55 | I will receive an excellent grade in my courses. | I believe I will receive an excellent grade in this course. | SEMLI-S |

## Appendix B

## Original Field-Tested Survey

## Outreach School Learning Environment Survey

1. The purpose of this questionnaire.

The following questionnaire asks for your opinion. You are asked to indicate to what extent you agree or disagree with the given aspects of each statement. There are no right or wrong responses. Your responses will provide information regarding your experience in the Outreach learning environment. This information can then be used to make possible changes to Outreach learning environments to better accommodate students' needs.

2. How to answer this questionnaire.

On the following pages circle a number from 1 to 5. 1 means you strongly disagree with that statement and 5 means you strongly agree. Circle only one number for each statement.

3. Changing your answer.

If you wish to change a response put an 'X' through the response you want to change and circle the one you want. Or if you use a pencil, completely erase the response you want to change and circle the one you want.

4. Confidentiality.

Do NOT put your name or any information anywhere on the questionnaire. All questionnaires must remain anonymous.

5. Completing the questionnaire.

Please ensure you have circled only one response per statement and that you have not left any blank responses.

6. Returning the questionnaire.

Place the completed questionnaire and consent form into the envelopes provided. Seal the envelopes and return them to a teacher.

Thank you.

**Outreach School Learning Environment Survey**

How old are you (circle one)? 14 15 16 17 18 19 20

Your gender (circle one)? Male Female

Check the name of the Learning Store location you are attending?

- o Londonderry
- o Whyte Avenue
- o Circle Square
- o West End
- o Blue Quill
- o Transitions at the Y

Length of time attending a Learning Store (check one):

- o Less than 6 months
- o 6 months to 1 year
- o 1 to 2 year
- o More than 2 years

Approximate number of courses completed at a Learning Store (check one):

- o 0 to 4
- o 5 to 9
- o More than 10

The reason you are attending an Outreach School? (check one)

- o Dropped Out of previous high school
- o Asked by school to leave due to poor attendance
- o Is a condition of my parole or expulsion
- o Upgrading (I already have a high school diploma)
- o Attending another high school but taking a course at the Learning Store
- o Other _____

**Outreach School Learning Environment Survey**

**1. Strongly disagree**
**2. Disagree**
**3. No opinion**
**4. Agree**
**5. Strongly agree**

**In my Learning Store**

| | | | | | |
|---|---|---|---|---|---|
| 1. My teachers are friendly. | 1 | 2 | 3 | 4 | 5 |
| 2. My teachers are approachable. | 1 | 2 | 3 | 4 | 5 |
| 3. My teachers are helpful. | 1 | 2 | 3 | 4 | 5 |
| 4. My teachers care about my learning. | 1 | 2 | 3 | 4 | 5 |
| 5. My teachers show interest in my problems. | 1 | 2 | 3 | 4 | 5 |
| 6. I respect my teachers. | 1 | 2 | 3 | 4 | 5 |
| 7. My teachers trust me. | 1 | 2 | 3 | 4 | 5 |
| 8. I trust my teachers. | 1 | 2 | 3 | 4 | 5 |
| 9. I have a say in deciding how much time I spend on modules. | 1 | 2 | 3 | 4 | 5 |
| 10. I have a say in deciding which modules I do first. | 1 | 2 | 3 | 4 | 5 |
| 11. I have a say in which of my assignments are graded. | 1 | 2 | 3 | 4 | 5 |
| 12. I have a say in how my assignments are graded. | 1 | 2 | 3 | 4 | 5 |
| 13. I have a say in what courses I take. | 1 | 2 | 3 | 4 | 5 |
| 14. I have a say in how much time I spend in school. | 1 | 2 | 3 | 4 | 5 |
| 15. I have a say in deciding how much time I spend on a course. | 1 | 2 | 3 | 4 | 5 |
| 16. I am comfortable telling my teachers when I do not understand something. | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | **1. Strongly disagree**<br>**2. Disagree**<br>**3. No opinion**<br>**4. Agree**<br>**5. Strongly agree** | | | | |
| **17.** | I am comfortable asking my teachers for help with my work. | 1 | 2 | 3 | 4 | 5 |
| **18.** | I am comfortable asking why I have to do certain activities. | 1 | 2 | 3 | 4 | 5 |
| **19.** | I am comfortable disagreeing with my teachers. | 1 | 2 | 3 | 4 | 5 |
| **20.** | I discuss how well I am learning with my teachers. | 1 | 2 | 3 | 4 | 5 |
| **21.** | I discuss how I can improve my learning with my teachers. | 1 | 2 | 3 | 4 | 5 |
| **22.** | I can discuss with my teachers what needs to be learned. | 1 | 2 | 3 | 4 | 5 |
| **23.** | The teachers encourage me to improve my learning. | 1 | 2 | 3 | 4 | 5 |
| **24.** | The teachers encourage me to talk to them about my learning. | 1 | 2 | 3 | 4 | 5 |
| **25.** | The teachers provide the support I need to be successful in school. | 1 | 2 | 3 | 4 | 5 |
| **26.** | The teachers encourage me to pursue my career goals. | 1 | 2 | 3 | 4 | 5 |
| **27.** | The teachers support the decisions I make about my schooling. | 1 | 2 | 3 | 4 | 5 |
| **28.** | The teachers encourage me to challenge myself. | 1 | 2 | 3 | 4 | 5 |
| 29. | I discuss my schoolwork with other students to help me improve my learning. | 1 | 2 | 3 | 4 | 5 |

| | | | | | |
|---|---|---|---|---|---|
| | **1. Strongly disagree**<br>**2. Disagree**<br>**3. No opinion**<br>**4. Agree**<br>**5. Strongly agree** | | | | |
| 30. The interactions I have with my peers at school are positive. | 1 | 2 | 3 | 4 | 5 |
| 31. I have opportunities to discuss my schoolwork with other students at school. | 1 | 2 | 3 | 4 | 5 |
| 32. Peer interactions are encouraged in school. | 1 | 2 | 3 | 4 | 5 |
| 33. I talk to other students at the school. | 1 | 2 | 3 | 4 | 5 |
| 34. I interact with other students. | 1 | 2 | 3 | 4 | 5 |
| 35. The physical set-up of the Learning Store is comfortable. | 1 | 2 | 3 | 4 | 5 |
| 36. The Learning Store hours work well for me. | 1 | 2 | 3 | 4 | 5 |
| 37. I have access to learning materials. | 1 | 2 | 3 | 4 | 5 |
| 38. I have access to counseling services. | 1 | 2 | 3 | 4 | 5 |
| 39. The Learning Store environment helps me learn. | 1 | 2 | 3 | 4 | 5 |
| 40. The Learning Store location is easy for me to get to. | 1 | 2 | 3 | 4 | 5 |
| 41. My use of technology helps me learn. | 1 | 2 | 3 | 4 | 5 |
| 42. My use of technology is enough for my needs. | 1 | 2 | 3 | 4 | 5 |
| 43. My use of technology motivates me to do school work. | 1 | 2 | 3 | 4 | 5 |
| 44. My use of technology is well supported in the school. | 1 | 2 | 3 | 4 | 5 |
| 45. I am comfortable using technology. | 1 | 2 | 3 | 4 | 5 |
| 46. I have access to technology outside of school. | 1 | 2 | 3 | 4 | 5 |
| 47. My teachers' use of technology helps me learn. | 1 | 2 | 3 | 4 | 5 |

**1. Strongly disagree**
**2. Disagree**
**3. No opinion**
**4. Agree**
**5. Strongly agree**

| | | | | | |
|---|---|---|---|---|---|
| 48. There is adequate technology available to me at my school. | 1 | 2 | 3 | 4 | 5 |
| 49. I am confident that I am learning the material I need to. | 1 | 2 | 3 | 4 | 5 |
| 50. I can meet my learning goals. | 1 | 2 | 3 | 4 | 5 |
| 51. I am making progress towards my future goals. | 1 | 2 | 3 | 4 | 5 |
| 52. I can understand the material presented in the modules. | 1 | 2 | 3 | 4 | 5 |
| 53. I can master this course on my own. | 1 | 2 | 3 | 4 | 5 |
| 54. I am confident I can do a good job on assignments and tests. | 1 | 2 | 3 | 4 | 5 |
| 55. I will receive an excellent grade in my courses. | 1 | 2 | 3 | 4 | 5 |

## Appendix C

## Outreach School Learning Environment Survey

**ADULT CONSENT FORM**


**Research Investigator:**
Mary Anna Pokerznik
Learning Store at Circle Square
11808 St. Albert Trail
T5L 4G4
Maryanna.pokerznik@epsb.ca
780-482-1407

**Supervisor:**
Dr. Gregory Thomas
University of Alberta
Faculty of Secondary Education
Edmonton, AB
T6G 2R3


*Background*

All students registered at an Edmonton Public Schools Learning Store location are being asked to take part in this research study. The results of this study will be used to support of the researcher's Masters degree, and possibly influence future changes to Learning Store environments.

*Purpose*

The purpose of this study is to gather student opinions based on their experiences, views, and knowledge of Learning Stores.

*Study Procedures*

You will be asked by a teacher to consider taking part in this research. You will be asked to provide your consent and complete the questionnaire. The questionnaire should take approximately 15 minutes to complete, but you may take as long as you need. You may fill out the questionnaire in the school's common area, ask for a private space, or you may complete the questionnaire at home. Then you will need to place your completed questionnaire and consent form into the envelopes provided, seal the envelopes and return them to a teacher who will immediately place them in a collection envelope. The

collection envelope will be kept in a locked filing cabinet in the teacher's office. The completed questionnaires will be returned to the researcher weekly.

*Benefits*

There are no foreseeable or immediate benefits to you. The information gathered on the questionnaires will be looked at to find possible ways of improving Learning Store environments in the future. The goal of this research study is to look at possible ways of increasing High School completion rates.

There is no cost to you for taking part in this research.

*Risk*

There are no foreseeable risks in participating in this study. Steps have been taken to make sure that all completed questionnaires remain anonymous.

If you choose not to take part in this study your status at the Learning Store will in no way be affected or changed.

*Voluntary Participation*

You are under no obligation to participate in this study. Your participation is completely voluntary. If you agree to be in the study, you have the right withdraw from this study prior to returning your envelopes to a teacher. If you change your mind while completing the questionnaire, let a teacher know. The teacher will instruct you to place the questionnaire into a secure shredding bin.

*Confidentiality & Anonymity*

The information collected will be used to complete the requirements for the principle researchers Masters degree in Secondary Education at the University of Alberta. The finding of this study will also be shared with Learning Store administrators and teachers. Data from this study may be used in future research, presentations or articles. Before this occurs it will have to be approved by a Research Ethics Board.

Data will be kept confidential. Only the researcher and her supervisor will have access to the actual information provided on the questionnaires. Steps have been taken to ensure

that no student can be linked to a specific questionnaire. If less than 10 students at a location return questionnaires, all questionnaires from that site will be excluded from the study, and destroyed.

The completed questionnaires will be kept in a locked filing cabinet in the teacher's office at each Learning Store location until they are returned to the researcher. Once the researcher receives the completed questionnaires, they will be placed in a locked filing cabinet in her office. The data from the questionnaires will be entered into a computer program, and the findings will be published in a research paper. In accordance with University of Alberta policy, and once the researcher has successfully obtained a Masters degree, questionnaires will be held in a locked filing cabinet in the possession of the researcher for 5 years. At the end of that time the researcher will shred them.

*Further Information*

If you have any further questions regarding this study, please do not hesitate to contact Mary Anna Pokerznik (see contact information above).

A Research Ethics Board at the University of Alberta has reviewed and approved the plan and questionnaire for this study for its adherence to ethical guidelines. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780-492-2615).

Thank you very much for considering this request.

Sincerely,

Mary Anna Pokerznik

Dr. Greg Thomas, Associate Professor (Secondary Education, University of Alberta)

**Informed Consent Form (Adult)**

Investigator: Mary Anna Pokerznik

Project Title: **Outreach School Learning Environment Survey**

You are being asked to complete a questionnaire that looks at different parts of Outreach School learning environments. Working under the supervision of a professor from the University of Alberta, it is my intention to collect information from you based on your experience and knowledge of Edmonton Public Schools Learning Stores.

In agreeing to take part in this study:

I understand that I have been asked to participate in a research study.

I understand the benefits and risks involved in participating in this study.

I have received information on how to contact the researcher if I have any questions or would like to discuss the study.

I am aware that I am under no obligation to participate in this study.

I understand that I am being asked to complete a questionnaire about my Learning Stores learning environment.

I am aware that I may withdraw from this study even after giving consent, but am aware that once my questionnaire is returned to a teacher, it can no longer be withdrawn.

I am aware that all information is anonymous and will be kept secure in a locked filing cabinet for 5 years after the researcher's Masters Degree has been granted, in accordance with the University of Alberta policies.

I understand that the information from my questionnaire will be entered into a computer program by the researcher. This technology will help the researcher look for trends in the data.

Information gathered will be used for academic and professional purposes (masters degree, presentations and papers).

I am comfortable providing consent based on the information provided to me about the purpose of this study and the method of collecting the information.

I am aware that I will be required to provide approximately 15 minutes of my time in completing a single questionnaire.

By signing the form below I indicate my willingness to take part in the study described above. I, _____(print name), have read the information provided and am consenting to participate in this research study.

Signature: _____

Date: _____

## Appendix D

## Outreach School Learning Environment Survey

**PARENT/GUARDIAN CONSENT FORM**


**Research Investigator:**
Mary Anna Pokerznik
Learning Store at Circle Square
11808 St. Albert Trail
T5L 4G4
Maryanna.pokerznik@epsb.ca
780-482-1407

**Supervisor:**
Dr. Gregory Thomas
University of Alberta
Faculty of Secondary Education
Edmonton, AB
T6G 2R3


*Background*

All students registered at an Edmonton Public Schools Learning Store location are being asked to take part in this research study. The results of this study will be used in support of the researchers Masters degree and possibly influence future changes to Learning Store environments.

*Purpose*

The purpose of this study is to gather student opinions based on their experiences, views, and knowledge of Learning Stores.

*Study Procedures*

Your child has been asked by a teacher to consider taking part in this research. You are being asked to consent to your child's participation in this study. The questionnaire should take approximately 15 minutes to complete, but participants may take as long as they need. Your child may fill out the questionnaire in the school's common area, ask for a private space, or they may complete the questionnaire at home. Your child will be instructed to place their completed questionnaire and consent form into the envelopes provided, seal the envelopes and return them to a teacher who will immediately place

them in a collection envelope. The collection envelope will be kept in a locked filing cabinet in the teacher's office. The completed questionnaires will be returned to the researcher weekly.

*Benefits*

There are no foreseeable or immediate benefits to your child. The information gathered on the questionnaires will be looked at to find possible ways of improving Learning Store environments in the future. The goal of this research study is to look at possible ways of increasing High School completion rates.

There is no cost to you or your child for taking part in this research.

*Risk*

There are no foreseeable risks to participating in this study. Steps have been taken to make sure that all completed questionnaires remain anonymous.

If your child does not take part in this study their status at the Learning Store will in no way be affected or changed.

*Voluntary Participation*

Your child is under no obligation to participate in this study. Your child's participation is completely voluntary. If you consent to your child being in the study, you have the right to withdraw your consent prior to your child returning the envelopes to a teacher. If your child changes their mind while completing the questionnaire, they are to inform a teacher who will instruct them to place the questionnaire into a secure shredding bin.

*Confidentiality & Anonymity*

The information collected will be used to complete the requirements for the principle researchers Masters degree in Secondary Education at the University of Alberta. The finding of this study will also be shared with Learning Store administrators and teachers. Data from this study may be used in future research, presentations or articles. Before this occurs it will have to be approved by a Research Ethics Board.

Data will be kept confidential. Only the researcher and her supervisor will have access to the actual information provided on the questionnaires. Steps have been taken to ensure that no student can be linked to a specific questionnaire. If less than 10 students at a location return questionnaires, all questionnaires from that site will excluded from the study, and destroyed.

The completed questionnaires will be kept in a locked filing cabinet in the teacher's office at each Learning Store location until they are returned to the researcher. Once the researcher receives the completed questionnaires, they will be placed in a locked filing cabinet in her office. The data from the questionnaires will be entered into a computer program and the findings will be written up in a paper. In accordance with University of Alberta policy, once the researcher has successfully obtained a Masters degree, questionnaires will be held in a locked filing cabinet in the possession of the researcher for 5 years. At the end of that time the researcher will shred them.

*Further Information*

If you have any further questions regarding this study, please do not hesitate to contact Mary Anna Pokerznik (see contact information above).

A Research Ethics Board at the University of Alberta has reviewed and approved the plan and questionnaire for this study for its adherence to ethical guidelines. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780-492-2615).

Thank you very much for considering this request.

Sincerely,

Mary Anna Pokerznik

Dr. Greg Thomas, Associate Professor (Secondary Education, University of Alberta)

**Informed Consent Form (Parent/Guardian)**

Investigator: Mary Anna Pokerznik

Project Title: **Outreach School Learning Environment Survey**

Your child is being asked to complete a questionnaire that looks at different parts of Outreach School learning environments. Working under the supervision of a professor from the University of Alberta, it is my intention to collect information from your child based on their experience and knowledge of Edmonton Public Schools Learning Stores.

In agreeing to let my child take part in this study:

I understand that my child is being asked to participate in a research study.

I understand the benefits and risks to my child in being part of this study.

I have received information on how to contact the researcher if I have any questions or would like to discuss the study.

I am aware that my child is under no obligation to participate in this study.

I understand that my child is being asked to complete a questionnaire about their Learning Stores learning environment.

I am aware that I may withdraw my consent, but am aware that once my child returns the completed questionnaire to a teacher, it can no longer be withdrawn.

I am aware that all information is anonymous and will be kept secure in a locked filing cabinet for 5 years after the researchers Masters Degree has been granted, in accordance with University of Alberta policy.

I understand that the information from my child's questionnaire will be entered into a computer program by the researcher. This technology will help the researcher look for trends in the data.

I understand that information gathered will be used for academic and professional purposes (masters degree, presentations and papers).

I am comfortable providing consent based on the information provided to me about the purpose of this study and the method of collecting the information.

I am aware that my child will require approximately 15 minutes of their time to complete a single questionnaire.

By signing the form below I consent to _____(print student name) taking part in the study described above. I, _____(print parent/guardian name), have read the information provided and am consenting to my child's participation in this research study.

Parent/Guardian Signature: _____Date:_____

Student Signature: _____Date:_____

# Appendix E

## Final Version of Survey

## Outreach School Learning Environment Survey

1. The purpose of this questionnaire.

The following questionnaire asks for your opinion. You are asked to indicate to what extent you agree or disagree with the given aspects of each statement. There are no right or wrong responses. Your responses will provide information regarding your experience in the Outreach learning environment. This information can then be used to make possible changes to Outreach learning environments to better accommodate students' needs.

2. How to answer this questionnaire.

On the following pages circle a number from 1 to 5. 1 means you strongly disagree with that statement and 5 means you strongly agree. Circle only one number for each statement.

3. Changing your answer.

If you wish to change a response put an 'X' through the response you want to change and circle the one you want. Or if you use a pencil, completely erase the response you want to change and circle the one you want.

4. Confidentiality.

Do NOT put your name or any information anywhere on the questionnaire. All questionnaires must remain anonymous.

5. Completing the questionnaire.

Please ensure you have circled only one response per statement and that you have not left any blank responses.

6. Returning the questionnaire.

Place the completed questionnaire and consent form into the envelopes provided. Seal the envelopes and return them to a teacher.

Thank you.

**Outreach School Learning Environment Survey**

How old are you (circle one)? 14 15 16 17 18 19 20

Your gender (circle one)? Male Female

Check the name of the Learning Store location you are attending?

- o Londonderry
- o Whyte Avenue
- o Circle Square
- o West End
- o Blue Quill
- o Transitions at the Y

Length of time attending a Learning Store (check one):

- o Less than 6 months
- o 6 months to 1 year
- o 1 to 2 year
- o More than 2 years

Approximate number of courses completed at a Learning Store (check one):

- o 0 to 4
- o 5 to 9
- o More than 10

The reason you are attending an Outreach School? (check one)

- o Dropped Out of previous high school
- o Asked by school to leave due to poor attendance
- o Is a condition of my parole or expulsion
- o Upgrading (I already have a high school diploma)
- o Attending another high school but taking a course at the Learning Store
- o Other _____

1. **Strongly Disagree**
2. **Disagree**
3. **No Opinion**
4. **Agree**
5. **Strongly Agree**

*Outreach School Learning Environment Survey*

| **Question Number** | **Question** | | | | | |
|---|---|---|---|---|---|---|
| **Peer Interactions** | | | | | | |
| 1 | I discuss my schoolwork with other students to help me improve my learning. | 1 | 2 | 3 | 4 | 5 |
| 2 | The interactions I have with my peers at school are positive. | 1 | 2 | 3 | 4 | 5 |
| 3 | I have opportunities to discuss my schoolwork with other students at school. | 1 | 2 | 3 | 4 | 5 |
| 4 | Peer interactions are encouraged in school. | 1 | 2 | 3 | 4 | 5 |
| 5 | I talk to other students at the school. | 1 | 2 | 3 | 4 | 5 |
| 6 | I interact with other students. | 1 | 2 | 3 | 4 | 5 |
| **Student Perceptions of Teachers** | | | | | | |
| 7 | My teachers are friendly. | 1 | 2 | 3 | 4 | 5 |
| 8 | My teachers are approachable. | 1 | 2 | 3 | 4 | 5 |
| 9 | My teachers are helpful. | 1 | 2 | 3 | 4 | 5 |
| 10 | My teachers care about my learning. | 1 | 2 | 3 | 4 | 5 |
| 11 | My teachers show interest in my problems. | 1 | 2 | 3 | 4 | 5 |
| 12 | I respect my teachers. | 1 | 2 | 3 | 4 | 5 |
| **Technology** | | | | | | |
| 13 | My use of technology helps me learn. | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 14 | My use of technology is enough for my needs. | 1 | 2 | 3 | 4 | 5 |
| 15 | My use of technology motivates me to do school work. | 1 | 2 | 3 | 4 | 5 |
| 16 | My use of technology is well supported in the school. | 1 | 2 | 3 | 4 | 5 |
| 17 | I am comfortable using technology | 1 | 2 | 3 | 4 | 5 |
| **Self-Efficacy** | | | | | | |
| 18 | I am confident that I am learning the material I need to. | 1 | 2 | 3 | 4 | 5 |
| 19 | I can meet my learning goals. | 1 | 2 | 3 | 4 | 5 |
| 20 | I am making progress towards my future goals. | 1 | 2 | 3 | 4 | 5 |
| 21 | I can master this course on my own. | 1 | 2 | 3 | 4 | 5 |
| 22 | I will receive an excellent grade in my courses. | 1 | 2 | 3 | 4 | 5 |
| **Teacher Encouragement** | | | | | | |
| 23 | The teachers encourage me to improve my learning. | 1 | 2 | 3 | 4 | 5 |
| 24 | The teachers encourage me to talk to them about my learning. | 1 | 2 | 3 | 4 | 5 |
| 25 | The teachers encourage me to challenge myself. | 1 | 2 | 3 | 4 | 5 |
| 26 | The Learning Store environment helps me learn. | 1 | 2 | 3 | 4 | 5 |
| **Distributed Control** | | | | | | |
| 27 | I have a say in deciding how much time I spend on modules. | 1 | 2 | 3 | 4 | 5 |
| 28 | I have a say in what courses I take. | 1 | 2 | 3 | 4 | 5 |
| 29 | I have a say in how much time I spend in school. | 1 | 2 | 3 | 4 | 5 |
| 30 | I have a say in deciding how much time I spend on a course. | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Student Voice** | | | | | | |
| 31 | I am comfortable telling my teachers when I do not understand something. | 1 | 2 | 3 | 4 | 5 |
| 31 | I am comfortable asking my teachers for help with my work. | 1 | 2 | 3 | 4 | 5 |
| **Student-Teacher Relationships** | | | | | | |
| 33 | I am comfortable asking why I have to do certain activities. | 1 | 2 | 3 | 4 | 5 |
| 34 | I am comfortable disagreeing with my teachers. | 1 | 2 | 3 | 4 | 5 |
| 35 | The teachers support the decisions I make about my schooling. | 1 | 2 | 3 | 4 | 5 |