Hands-on Project Based Learning – The Key to Student Engagement

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2013
Abstract

The purpose of this project is to look at ways to increase motivation and engagement of students and skill development that will help prepare students for the changing world. This project focuses on using a hands-on project based program which is framed around the PowerPlay Young Entrepreneur® model. Students explored the world of business and developed 21st century competencies as well as learning to be more socially responsible. The participants were grade 6 students which worked through a series of six lessons, starting their own business and gaining real-life experience. The plan of the project was to be run with only minor modifications but upon completion of the project I realized that I needed to change my practice in strategy and perceptual focus. Project based teaching changes the focus from curriculum to the learner. I realized that in order for project based learning to be successful I needed to know my students. When I knew my students learning styles and ability levels I was able to differentiate instruction as well as being ready to accept a differentiated product from students. My plan is to share my learning with my colleagues and hopefully facilitate a greater awareness of the impact that hands-on project based learning has on student engagement. This would be a significant contribution to the body of knowledge around teaching and learning.
Table of Contents

Abstract ....................................................................................................................................... 2
Table of Contents ......................................................................................................................... 3
Chapter One.................................................................................................................................. 4
    Introduction .............................................................................................................................. 4
    Research Problem .................................................................................................................. 4
    Purpose of the Study .............................................................................................................. 5
Chapter Two................................................................................................................................. 7
    Literature Review .................................................................................................................... 7
    Relationship Building and Students Social Connection to Learning .................................... 8
    Engagement ........................................................................................................................... 13
    Formative Assessment ........................................................................................................... 18
Chapter Three............................................................................................................................. 24
    Program Description ............................................................................................................... 24
Chapter Four............................................................................................................................... 31
    Program Analysis .................................................................................................................. 31
Chapter Five............................................................................................................................... 45
    Summary and Conclusions ...................................................................................................... 45
    Implications ............................................................................................................................ 50
    Recommendations for the Future ........................................................................................... 50
    Emerging Issues – Poverty and Vulnerability ......................................................................... 52
    Conclusion ............................................................................................................................... 53
References ..................................................................................................................................... 56
Appendices ................................................................................................................................. 60
    Appendix A: Reflection Tool .................................................................................................. 60
    Appendix B: Student Engagement Tool .................................................................................. 61
    Appendix C: Characteristics and Outcomes of Student Engagement .................................... 62
    Appendix D: Engagement Questions ....................................................................................... 63
    Appendix E: Grade 6 Curriculum Learning Outcomes ............................................................ 65
    Appendix F: BC Ministry of Education Social Responsibility Quick Scale .............................. 70
Chapter 1: Introduction

“Tell me and I will forget. Show me and I may remember. Involve me and I will understand.”

-Unknown

I believe that learning is gaining knowledge or ability through the use of experience. It is the desire to be curious about the world around you. It is a self-regulated, life-long process. In order to learn you need to be engaged. A powerful learner knows how to learn in a productive learning environment. They know what, why and how they are learning. They have self-efficacy, motivation, collaborative skills and capacity to use knowledge and skills of a domain in constructing and reflecting on learning. A powerful teacher establishes learning intentions and success criteria. Learning tasks are challenging and differentiated. Questioning is distributed and encourages dialogue and higher order thinking and quite frequently originates from the learners. Teachers use collaborative group structures to actively engage students in their learning. Teachers gather and use feedback on how learning is going and provide feedback to move learning forward. Teachers involve students in self-assessment and reflection on learning. This is the ideal relationship between teacher, learner and an effective classroom learning environment. This process can only be successful if the student is at the centre of their own learning.

Research Problem

As a teacher and a leader, I recognize that the lack of student engagement is becoming a critical problem within our school systems. Students are going through the motions, following the rules, jumping through the hoops, all for the sake of getting a “good grade.” We know that students who are
engaged in the life of school, engaged in their own learning, and engaged by what and how they are learning are far less likely to fall through the cracks. Engagement is, “a long-term disposition towards learning – viewing learning as fun, seeing it as important, seeing the value of working with and functioning as part of a team, being part of a social institution” (Willms, 2011). These are all critically important lifelong skills. Student engagement is a necessary condition for learning and achievement; however, I feel that many learners in our school systems are not engaged in their own learning. Helen Timperley (2011) suggests that schools are sites of learning for both students and those who lead and teach in them. My perception is that 21st Century Skills are not being taught. There are still too many students being taught by the lecture style of teaching, which is one-sided and does not fully engage the students. It has been my experience that when students are engaged, they are inspired to be creative and collaborative, to develop goals and passions, and to become interested and invested in their own education. Non-cognitive skills are becoming more important in the workplace than academic achievement. It is our job to make sure that we are producing capable learners that are work force ready.

**Purpose of the Study**

I chose this topic because I feel passionately about getting students engaged in their own learning, which I feel is lacking today in schools. Students seem to be going through the motions, but are not actively engaged in their own learning because they do not see the relevance to real experiences. My hypothesis is that student engagement will increase if students are able to see the real world application of their learning by using a hands-on project based approach. What is the experience of students who participate in hands-on, project based learning? This is the question I was seeking to
answer in my project.

The purpose of this project was to see if using a hands-on project based program, such as PowerPlay Young Entrepreneurs®, increased motivation and engagement among my students. The program allowed them to explore the world of business and develop 21st century competencies as well as learn to be more socially responsible. The students who participated in the program were grade 6 students who worked through a series of six lessons that allowed them to start their own business and gain real-life experience. They developed products, business plans and marketing materials, and then earned money in a showcase event called the Young Entrepreneur Show. The enterprising students also learned about social responsibility by donating a portion of their profits to charity. Student reflections, interviews and journals were used to help me as a teacher see the ways in which learner engagement was influenced. It is my hope that my learners were not only participating and engaged in the project but they were also following through with what they had learned and taking ownership of their own learning. As I made general observations of my students throughout the process, worked with them one on one and assessed the products of their learning, I was able to review each stage of PowerPlay Young Entrepreneurs® and provide recommendations for future use of the program. I was also able to reflect on my own perspectives on reasons for student engagement and success with project based learning.
Chapter 2: Literature Review

Some keys areas of educational literature and research that support my project are those that relate to relationship building and students social connection to learning, poverty, student engagement in learning, project-based learning, and formative assessment.

There are really three components to the research literature that supported my understanding of this project. The first is around relationship, the focus being knowing my students both in terms of interests and, learning styles as well as capabilities. Secondly, the project involves changing my own teaching practices by trying something totally new. Project based learning has its roots in the primary program, but its value in intermediate and secondary classrooms is just being realized. Any time a teacher tries something new or radical it involves an element of risk. The purest form of professional development occurs when teachers engage in honestly examining practices and evaluating them for areas of need and are willing to significantly change what they do in order to increase the learning of students. The final component, which is about formative assessment, layers in to the change in teaching strategy. Project based learning calls for differentiated instruction which in turn calls for differentiated assessment. Because project based learning calls for active interaction between teacher, student and learning then formative assessment becomes essential. This kind of assessment is very different from the common practice today. There is a fluidity to project based learning. We are constantly learning about our students, we are constantly changing the delivery in terms of teaching, and we are in a constant state of joint assessment with our students.
Relationship Building and Students Social Connection to Learning

One proponent of creative thinking and relationship building is Joan Dalton (1992). Internationally respected Australian teacher and educator for 46 years, Dalton is acknowledged for her expertise in learning, leadership and facilitation, and her long-term work with schools for transformational change. Fellow of the Australian Council for Educational Leaders (ACEL), holder of the Inaugural Tasmania Award for distinguished services to teaching, and former Director of Professional Learning Services for a non-profit organization in the USA, Dalton’s consultancy expertise has been sought by schools and educational organizations across more than ten different countries. Recognized in 2012 by Microsoft as a global hero in education, Dalton currently designs and co-facilitates their Australian Innovative Schools Forums, Asia-Pacific Forums, and Worldwide Innovation in Education Forums. Since her first well-known book, Adventures in Thinking, Dalton has authored several internationally successful publications on learning and teaching, thinking and cooperative learning. Her research looks at the origins of these mindsets, their role in motivation and self-regulation, and their impact on achievement and interpersonal processes. Dalton’s (1992) findings convey two foundational conclusions. Firstly, she asserts that, “Children must learn to think creatively and critically, to communicate effectively through talk, to co-operate and to build positive interpersonal relations with others” (p.14). These are essential skills which we must develop in children to help them deal with the challenges and complexities the future will bring. Secondly, Dalton states, “Teachers must view themselves as managers of children's learning” (p.18). This leads us to ask, what is creative thinking? Creative thinking encompasses such things as discovery, invention, innovation, imagination, experimentation and exploration. Why is it important? People must learn to think creatively because
in our present times things are always changing. There are always new challenges, new problems and greater complexities. The consumption of knowledge is no longer adequate; we can no longer spoon-feed students with facts. Children must, “learn to think for themselves, to innovate, to create, to imagine alternative ways to get to the same goal, and to seek and solve problems” (p.2). It is important for the development of the total person and self-fulfilment. If we can prepare children for the future by teaching them to think creatively, they will have a good chance of developing inner fulfilment, and staying afloat in an environment of continual change.

According to the National Education Association, learning can be structured in three ways: competitive learning – students work against each other. Individual learning – students work alone. Cooperative learning – students work together to accomplish shared learning goals. While all three structures should be used, cooperation should play the dominant role in any classroom. Research by Johnson & Johnson (1989) indicates that cooperation, compared with competitive and individualistic efforts, typically results in higher achievement and greater productivity, more caring, supportive and committed relationships, and greater psychological, health, social competence, and self-esteem. Perhaps the most compelling argument for cooperative learning is that it actively engages students in learning. Each student has an opportunity to contribute in a small group and is more apt to claim ownership of the material (Johnson & Johnson, 1989).

The importance of co-operative talk: Dalton believes we need to re-evaluate our priorities and make oral language a major goal of education. Talk is essential for everyday communication and social interaction. It meets the child's basic need for self-expression and fosters self-confidence, enhances relationships with others, and is important for personality growth. Through talk, the child can acquire new concepts and ideas, reflect on and clarify existing ideas, concepts and values and formulate and develop higher order thinking skills (Dalton, 1992).
Each child needs to be actively involved in listening, talking and thinking. This is best achieved by working in small groups. Children do most of their learning from peers. Because of this, we need to purposefully develop ways to help children acquire and value co-operative learning skills as a means of achieving goals, solving problems, learning effectively, developing positive peer relations and contributing to self-growth. Dalton (1992) states that learning co-operatively in small groups promotes higher achievement and creative productivity, divergent thinking and effective problem-solving, thinking skills at higher cognitive level, intrinsic motivation, positive self-esteem, effective social skills, mutual respect and concern for each other and acceptance and understanding of individual differences.

Effective management of co-operative groups: A shift needs to be made from teacher-centered, directed learning and whole class discussion to child-centered learning, personal and group self-management and small group discussions. The teacher acts as a resource, manages the process and teaches the skills. We need to foster the students independence. Dalton (1992) gives many examples of how to start small, working in pairs and moving into triad/diyad groups to practice their listening, talking, turn taking, reporting and questioning strategies. Everyone in the group should have a job to do which makes them more accountable and engaged. She believes in creating a safe and supportive learning environment. Overall, through Dalton's methods students will display effective social skills, be more accepting of others ideas, which in turn helps to increase self-esteem and when students are in a safe group environment they are more intrinsically motivated to challenge themselves.

Like Dalton, Cothran and Ennis (2000) also believed that teachers needed to develop caring relationships with students. According to their study, students reported that they were more willing to engage when they felt that the teacher cared if they learned the subject matter and also cared about their personal lives and welfare. Similarly, Phelan, Davidson and Cao (1992) followed a diverse group of 54
students in four high schools for two years to gain insight into students’ views of schools. A recurring theme was the importance of having teachers who care, but high achieving students associated caring with assistance in academic matters, whereas low achievers associated caring with personality traits (e.g., patience, humour, ability to listen) and an expression of interest and concern in students as individuals. Personal caring was particularly important for students who were experiencing pressures and problems at home (e.g., alcohol-induced fights, physical abuse, verbal conflicts). Phelan, Yu and Davidson (1994) assert, “simply having adults who are willing and able to listen can often reduce the stresses they feel” (p.436).

Another prevalent issue, especially in British Columbia, that plays a huge role in students learning and social connections, is the issue of poverty. According to Stats Canada (2011), the BC child poverty rates rose in 2011 to 93,000 – an increase of 7,000 children. In order to serve these children well, educators must understand the particular experiences and challenges these children face. Increasingly, the professional development of teachers on the topic is drawn from the work of Dr. Ruby Payne, a self-proclaimed expert on poverty and poor children. Payne’s remarkable popularity reflects growing concern about poverty and its effects on children’s educational experiences. As educators grapple with the challenge of meeting performance standards for all groups of students, districts have been actively seeking answers to the problem of working with children in poverty. Payne (2005) states,

…the reality is that financial resources, while extremely important, do not explain the differences in the success with which individuals leave poverty nor the reasons that many stay in poverty. The ability to leave poverty is more dependent upon other resources than it is upon financial resources. (p.8)
Payne argues the cultivation of emotional resources is of utmost importance, defined as being able to choose and control emotional responses, particularly to negative situations, without engaging in self-destructive behaviour. This is an internal resource and shows itself through stamina, perseverance, and choices” (2005, p.7). The involvement of role models is critical, then, because “it is largely from role models that a person learns how to live life emotionally” (2005, p.9). Although all individuals have role models, Payne cautions, “The question is the extent to which the role model is nurturing or appropriate” (2005, p.9). Good role models and support systems should be able to offer advice about and demonstrate a more desirable alternative than living in poverty. Being a teacher allows one quite naturally to serve as a role model or support to children in poverty. Payne explains,

Even with the financial resources, not every individual who received those finances would choose to live differently…But it is the responsibility of educators and others who work with the poor to teach the differences and skills/rules that will allow the individual to make the choice. (p.113)

Payne identifies education as the key to getting out of, and staying out of, generational poverty. Poverty is not just about the lack of finances, as stated by Payne (2005), it is about having a role model in those students lives in order for them to be connected. Similar in vein, is Katz (1999), whose study points out that perceiving that teachers care appears to be especially important for students who are alienated and marginalized and who are at risk of school failure. Data revealed that not only students’ appreciation and preference for teachers who communicated interest in their well-being, but also students’ willingness to reciprocate by being attentive and conscientious. This was particularly evident in the responses of “stigmatized” students (like my “gray area” students) who faced “social borders” –
divisions between their academic and social worlds. Davidson (1999) speculated that students who do not face social borders might be more accepting of teachers who are relatively distant and impersonal because the students basically trust school as an institution: however, when students face the social divisions that can lead to alienation and marginalization, it is essential for teachers to be attentive, supportive, and respectful. Negative relationships can exacerbate alienation, and may even determine whether students come to class. It is this sense of connectedness and the building of positive interpersonal relations with others, as asserted by Dweck (2007) that is going to enable those “gray area” students to become engaged and more successful in their learning.

**Engagement**

A significant question that arises when thinking about engagement is the extent to which people are conscious of what is going on when they are learning. Are they aware that they are engaged in learning – and what significance does it have if they are? How can we recognize these engaged learners? Some data that came out of the 2009 First National Report, *What did you do in school today?* was a comparison between three types of engagement: social, academic/institutional and intellectual. Are students just ‘doing’ school or are they engaged with their studies? How does a students level of engagement influence learning, achievement, and teaching? were two key questions that the Canadian Education Association’s (CEA) asked in 2007. Founded in 1891, the Canadian Education Association (CEA) is a network of passionate educators advancing ideas for greater student and teacher engagement in public education. CEA does this by conducting research and spreading useful ideas through its publications, website, workshops, symposia, and social media channels; supporting education systems to be more adaptive to the rapidly changing needs of all learners in an effort to reverse the trends of
students ‘tuning out’ of their learning opportunities. Since then they have started an initiative on student engagement entitled, *What did you do in school today?*, which has shed light on such questions through survey results from over 60,000 students. The latest series of *What did you do in school today?* reports focus on student engagement, academic outcomes, instructional challenge, and intellectual engagement.

Social engagement involves participation in extracurricular activities and other school activities. It's about having a strong sense of belonging at school – engaged students are participating in sports, they are developing social skills and making positive friendships. Academic or institutional engagement is about showing up for school on time and not being truant. These students value schooling outcomes; they know it's important to their long term future; they seldom skip class; they do their homework. However, that does not mean that they love school, or have a deep psychological investment in their learning. Intellectual engagement is characterized by students putting in extra effort in their studies and being motivated to learn. That piece goes hand in hand with quality instruction. The teachers are interacting with that positive effort and motivation on the part of the students, providing really effective learning time, and having relevant, exciting instruction in the classroom (Willms, Milton, Friesen, 2009). Therefore, an engaged student is not only engaged socially and academically/institutionally, but also intellectually (Willms, 2011). Before you can start thinking about enabling context, you need to first focus on the classroom. According to Willms (2011), three factors need to be taken into account: teacher-student relations, high expectations for success and a positive disciplinary climate, which means that students know what the expectations are and what the rules and boundaries encompass.
Marzano and Pickering are also key researchers in the area of engagement (2011). They combine over 40 years of educational research with continuous action research in all major areas of schooling in order to provide effective and accessible instructional strategies, leadership strategies, and classroom assessment strategies. They pose four key questions that students ask themselves, the answers to which determine how involved students are in classroom activities. The first two questions, “How do I feel?” and “Am I interested?” deal with attention, whereas, the last two questions “Is this important?” and “Can I do this?” deal with engagement. Attention is a short-term occurrence that ranges from a few seconds to a few minutes while engagement is more long-term which lasts beyond the framework of a single class period. When students are engaged they tend to think about the topic frequently and in depth.

How Do I Feel? If emotions are negative, students are less likely to engage in new activities or challenging tasks. Some suggestions on how to keep up the emotional engagement in the classroom are as follows. Students are engaged by keeping the energy levels high by maintaining a lively pace, especially when transitioning from one activity to another. Focus is engaged by a teacher's demonstration of a positive demeanor through their enthusiasm and intensity, including using verbal and nonverbal clues (p.21). Even though Brophy (2004) states that intensity is good, he also says that, “you cannot be so intense all the time, and even if you could, your students would adjust to it so that it would lose much of its effectiveness” (p.276). Using humor sets a positive tone and increases the comfort of the students. Incorporating physical movement, which impacts energy levels and increases their ability to attend, also positively impacts engagement. Students' perceptions of acceptance by other students will increase their engagement. Marzano suggests that if students feel that they are not welcome, accepted, or supported in the classroom, it is unlikely that they will be engaged. There needs
to be a positive rapport between teacher-student and peers in order for learners to feel a sense of belonging. If students perceive that the teacher respects and likes them, they are more likely to attend to classroom content. “It is not what a teacher thinks and feels about a particular student that forges a positive relationship with the student, rather, it is how the teacher speaks to and behaves with the student that communicates respect and acceptance” (2011, p.36).

Am I Interested? This question deals with the extent to which classroom activities intrigue students (Marzano and Pickering, 2011). Ulrich Schiefele (2009) breaks this question into two parts related to situational and individual interest. Situational interest might come into effect if you have a really great hook or lesson which increases the learners interest at that particular time, however, once that lesson is over so is their interest. Individual interest, on the other hand, is long-term and represents one's general identity toward a specific topic. It is easy to spark a student’s interest but it is much harder to keep it. Four strategies to use to gain student interest are: using games and trivial competition, for example playing Jeopardy to review a unit or initiating friendly controversy, presenting unusual information, which excites peoples natural curiosity and questioning to increase response rates. For example, if you randomly call on students instead of always choosing those with their hand up, students are more likely to attend to classroom lessons and think of a response if they know that they might get picked.

Is This Important? This question, by Marzano and Pickering (2011), addresses the extent to which students perceive classroom goals as related to their personal goals based on evidence that the teacher and student have identified. If students believe something is important they are more likely to stay involved at the task at hand. In addition, if students feel that they have choice about what they are learning or how they go about learning it then they are better able to make direct connections to their personal goals. If the learners see a connection with what they are learning and how it's connected to
the real world and perhaps what they want to be in the future, then they are going to consider what they are learning as important. Regurgitating information that they learned in the textbook is not going to seem as relevant as if they were able to deal with real world issues that challenge their need to solve problems and think critically (Marzano and Pickering, 2011). Aspects to consider when asking students to identify whether what they are doing is important are to make sure it is: connected to students' lives, by using analogical reasoning tasks or comparison tasks between what they are learning and what interests them. It also has to be connected to students' life ambitions, by having them complete personal projects. Connecting to students' life ambition goals can contribute to students' sense of self-efficacy by intrinsically motivating them (Jacobs, 2010). Additionally, learning should encourage application of knowledge, by designing cognitively challenging tasks and using processes such as decision making, problem solving, experimental inquiry and investigation. Activities that foster comparisons to students' lives help students attach importance to content addressed in class.

Can I Do This? This final question from Marzano and Pickering (2011), deals with the extent to which students have or cultivate a sense of self-efficacy. If students have a fixed mindset they tend to devalue effort, they either have the ability to do something or don't. They believe effort will not help them much. However, growth mindset researchers, such as Dweck (2007), assert the harder you work at something, the better you will be at it.

There are four strategies to enhance students' sense of self-efficacy which help to examine the relationship between their behaviour and their academic achievement. First, teachers need to encourage students to track and study their progress. By having students graph their own progress they are able to see the connections between their marks and their effort. It would show that the harder they work or the longer they studied, their marks would improve, making them more accountable for their
own learning. Two questions they should be asking themselves are, “What will I do it accomplish my goal?” and “How well am I doing?” They need to track effort and preparation in order to improve their awareness about the connection between the two, thus enhancing their own sense of self-efficacy (Marzano and Pickering, 2011). Marzano (2011) believes in using effective verbal feedback. It is important to stay away from fixed traits good/bad, intelligence/talent, whether positive or negative, and instead focus on the effort or preparation that went into the work. The feedback should make students want to try harder or prepare better in the future. The underlying message should always be “that if students try hard and prepare well, they can accomplish great things” (p.125). We also need to continually share stories with our learners that show them there are many people who, in spite of obstacles go on to accomplish great things and fulfill their dreams is another way of encouraging self-efficacy.

Overall, if students are to be highly engaged in the classroom environment, the teachers need to design and present lessons in which the learners are able to answer these questions positively: “How do I feel?” “Am I interested?” “Is this important?” “Can I do this?” If students find the material that they are learning is boring or irrelevant, they will most likely not attend to classroom activities. In addition, if they have what Dweck (2007) refers to as a fixed mindset and feel as though they are not capable of learning, they will also not be engaged. If students are to meet any challenge, large or small, they must feel they have the ability to succeed. It is very important for students to feel as though they belong and have a connection with their teacher and peers in order for them to feel successful.

Formative Assessment

Margaret Heritage (2007) describes formative assessment as “a systematic process to
continuously gather evidence about learning” (p.140). Carol Boston (2002) explains that it is “the diagnostic use of assessment to provide feedback to teachers and students over the course of instruction” (p.1). Essentially, formative assessment is a process rather than a product in that it focuses on uncovering what and how well the student understands throughout the course of instruction.

In 1998, professors Paul Black and Dylan Wiliam of Kings College, London, likened the classroom to a ‘black box’. Government initiatives focused on the box’s input and output, but not what went on inside it. Lip service was paid to the process of teaching and learning, but this was sidelined in favour of ‘summative assessment’ – the recording of data for certification and evaluation. In order to restore the balance they advocated ‘formative assessment’, or assessment for learning (AFL). In AFL, information from marking or other means of assessment is used as feedback to modify learning activity. This might take the form of teachers giving comments on how a student can improve their work instead of awarding grades, or students assessing themselves where their weaknesses lie. It is based on the idea that all students can improve, and fosters a spirit of cooperation in the classroom, with students actively involved in their own learning. They went on to develop a project with 48 teachers. This project developed formative practice in four areas, questioning, peer and self-assessment, marking and AFL through summative assessment.

Questioning: Teachers found that if they allowed more time for students to reply to their questions, more thoughtful answers were given. They also found that lessons became richer if they changed the focus of questions from testing students’ knowledge of facts to exploring their understanding.

Peer and self-assessment: Teachers encouraged students to take more ownership of their own learning by helping them to understand learning targets. ‘Traffic-lighting’, in which students assigned
red, amber or green to a piece of work, according to the degree which they did or did not understand it was also found valuable. Peer assessment showed that students were more likely to challenge each other’s judgments of their work, thereby sparking discussion and debate.

Marking: One of the central tenets of AFL is feedback which identifies what the student has done well and focuses on what he or she can do to improve. Following the research evidence that students pay more attention to comments when they are not accompanied by marks, teachers were encouraged to give comments only. This required effort from both student and teacher, but led to the fostering of better learning environments as all saw that learning was improving.

AFL through summative assessment: AFL has to operate in a world of summative assessment, but exams can be used to directly improve learning. Students were encouraged to understand the criteria against which exams were marked, and to revise more actively by generating their own exam questions, explaining parts of units to each other and marking peers’ work (Black, Wiliam, 1998).

Implementing AFL on a small scale can pose problems as students who have become used to playing an active role in their own learning may be confused by having to revert to a passive role. It is in school-wide implementation that AFL really comes into its own, but this needs to be a long and careful process, based on a clear vision, thoughtful evaluation and a great deal of support. It has been suggested that students who are used to coasting through their coursework may not adapt as well to AFL, which demands more effort and engagement in the classroom. However, it can also be argued that a system that is modelled to target individual improvement will necessarily help higher achievers. Group work in which students discuss and explain topics is an important feature of AFL, and it is suggested that those who give help to others generally benefit most, since having to articulate understanding helps in its long-term retention (Black, Wiliam, 1998).
How learning is assessed and graded is also important. The present grading system often does not emphasize the importance of students being engaged during the process; rather evaluation often focuses solely on the final product, the grade. Within this system of evaluation, students can easily become disengaged when they are not invited into the process as equal participants in their own assessment and success (Greenstein, 2010). Perhaps there has not been a level of trust established between the teacher and the student. Too often students are not even aware of how or why they received the grades they did. If students are not involved in the process of their own learning, the grades will have no meaning (Cannon, Nash, Utter, 2012). What works better for students? Assessing learning process and competencies, and the ability to think critically (rather than factual learning outcomes), will promote and encourage students to engage and focus on their education (Willms, 2011). By using Dylan Willms (2011) five strategies of Formative Assessment, we should be creating learners who own their learning. Those five strategies are cyclical: clear learning intentions, criteria for success, descriptive feedback, questions for evidence of learning and peers as learning resources.

Hall and Burke (2004) state that learners make sense of situations for themselves and build their own connections. They believe we do not simply discover things. Each learner interprets, makes sense of and builds their own unique representation of what was taught because it gets connected to each learner’s unique set of prior understandings. This relates back to Payne’s findings in that, those who come from poverty are going to have less or different life experiences and their interpretation and connections to learning could be very different than those of their classmates. If this is the case, then assessment for these students needs to be different. The traditional model of assessment emphasized measurement and testing and taking snapshots of performance at single points. Assessment for Learning, as stated by Black and Wiliam (1998), is more concerned with the overall process in which
the students are guided through their use of questioning and feedback comments, as opposed to the end result.

Making education an engaging and enjoyable process will result in students learning worthwhile life capacities such as critical thinking, collaboration, creativity, inquisitiveness and innovation. Acquiring these skills, not just the ability to score well on tests, should be the goals of a good education.

The three key areas of relationship building, engagement, and formative assessment are themes that arise with all of the researchers that I have been following. Dalton (1992) focuses on relationship and creativity. She makes the connection between knowing your students and enabling them to release their creativity while enabling ingenuity. She was a proponent of cooperative talk with connections around talking, listening and thinking. According to Payne (2005), this is especially true when we are dealing with kids who come from poverty. The connection and role model piece is of utmost importance. Dalton stated that relationship leads to engagement.

The 2009 First National Report also makes the connection between having a sense of belonging and engagement. Willms, Milton, and Friesen (2009) tied this to relationship. When students feel that there are important relationships at school then they form a sense of belonging there and are thereby engaged socially and intellectually. Willms (2011) connected relationship to motivation and a positive disciplinary climate. Relationship, learning, and motivation were all connected.

Marzano and Pickering (2011) also understand the connection between relationship and engagement. Their four questions are reflective of that connection. The questions relate to how students feel about what they are learning and how that learning relates to their life. Marzano and
Pickering (2011) also talk about the importance of self-efficacy. Through self-assessment which is formative students can determine if they are meeting their goals and answer the question "Can I do this?"

Greenstein (2010) writes about trust and relationship. He spoke about relationship, engagement and assessment. Students need to be equal partners in the process. This idea was supported by Cannon, Nash and Utter (2012) who stated that without involvement then assessment has no meaning.

Relationship, engagement, formative assessment, the concepts are all inter-related and one is founded on the other. In order to move students forward and have them working meaningfully toward goals we need all three elements.
Chapter 3: Procedures and Methods

Program Description

PowerPlay Young Entrepreneurs® is a program created by PowerPlay Strategies Incorporated™ (PPS), an educational publisher committed to providing unique and innovative resources or K-12 classrooms. It is a project based program that provides students with hands-on learning opportunities. Students are challenged to set up a business plan, develop a product, manufacture the product and sell the product. Students develop skills around communication, networking, assessment, creative thinking, collaboration, and problem solving all while learning the elements of basic business elements.

The principal of my school received an email about the PowerPlay Program and decided to look into it. We thought it would be something different for the students, it was cross-curricular and claimed to get students engaged, so we thought we would give it a try. The program was sponsored by Envision Financial, who paid the $400 cost. The kit included a teachers manual with lesson plans, activity sheets and planning tools, student workbooks, parent information package and a program DVD. The lesson plans are very step by step and detailed. A webinar was also set up before the start of the program which provided detailed descriptions on each of the lessons, best practices and the experiences of other teachers, with time for questions. On-going support was also available.
The students that were used for my project were my grade 6 class who I observed and interacted with as their teacher, in order to evaluate key features of the project based learning program. The class was comprised of twenty-eight students - seventeen males and eleven females. They were between the ages of eleven and twelve years old and were of various races and ethnicities. Approximately 25% of the class is of aboriginal ancestry.

The first step in my plan was to spend time at the beginning of the school year creating a comfortable, safe classroom environment where everyone felt accepted and welcome. Together we created a class code of conduct on what a respectful class looks like, everyone signed it and we reviewed it frequently. When one of the class codes was broken, we revisited it and asked ourselves - Are we honouring our code? Is it working? Do we need to make a change? This helped to create a sense of ownership. Then I used various co-operative learning strategies and activities that Joan Dalton suggested in her book. Something I tried in my classroom this year is the concept of the sharing circle. This allowed each of my learners an opportunity to let their voice be heard, thus creating an engaging space for them to share their thoughts, ideas or concerns, while practicing their active listening skills.

In January, I introduced the PowerPlay Young Entrepreneur Program® to my class as well as an introductory DVD and slideshow of an overview of the program, which is an exciting hands-on educational program that complements many aspects of the curriculum. Students started their own individual businesses, to develop practical life skills and gain real-life experience. They even had the opportunity to earn money at a Young Entrepreneur Learning Showcase. Students learned the necessary business skills at school, but creating their products at home, in most cases. Home support was an issue for a few students in the class, so class time (with a support worker) and supplies were
provided at the school in order for these students to be more successful with the program. In some cases, a nominal amount of money was required from the students’ parents in order to help them purchase the materials for their products, which the child is expected to repay.

I provided a sign-up sheet for the students to ensure that there were not too many of the same products being made. The students had to have a product to sell at the show; they were not allowed to provide a service. Their product had to be enhanced in some way, they could not just buy a pen and re-sell it, they had to add to it. They also could not make anything edible for human consumption. This was not a bake sale.

The program was broken down into six lessons.

The students:

- Prepared business plans and then developed and marketed their own products.

- Worked with others to learn teamwork, problem-solving, and planning skills.

- Utilized and honed creative, communicative and abstract thinking abilities.

- Designed marketing materials and showcased achievements for the school and community members.

- Donated a portion of their profits to charity and experienced the impact of giving.

- Evaluated their efforts and identified successful strategies for the future.

They were as follows:

Lesson 1: Business Ideas and Goals

The first lesson provided an introduction to the PowerPlay Business Planning system. Three
different types of businesses (manufacturing, service and retail) were discussed and then students learned that their challenge for this program was to each make and sell a product. The young entrepreneurs established goals for their business projects. Typical goals for this program included having fun, learning about business, making money and supporting charities. They were encouraged to make their goals realistic and to use this learning opportunity to build practical skills for the future. Students also examined criteria for selecting a business idea for this program. They learned that they must first consider their market-the school community and invited guests. Other students in the school were invited to attend the Young Entrepreneur Show, so a relatively inexpensive product that appealed to children was ideal. Students explored examples of products and were instructed to each select their own product idea for the next lesson. They used their ideas to create market research surveys.

Lesson 2: Market Research & Business Operations

Young entrepreneurs needed to consider why customers would want to buy their products. This lesson included a discussion about the importance of making the products unique and special. The students played a Market Research game and learned how to find out what product features their potential customers would like. They then designed their own market research surveys and were challenged to use the results to create their products. Business operations were also introduced in this lesson. The young entrepreneurs started thinking about the steps they needed to take when making their products.

Lesson 3: Money Plans

In this week’s lesson, the young entrepreneurs explored the concepts of cost, price and profit. Through a game, the students discovered that as the price of a product goes up, the number of buyers
goes down. They also started to consider how much it would cost to start their businesses.

Lesson 4: Marketing

The young entrepreneurs discussed creative ways to market products and attract customers. Students analyzed real-life examples and then started considering their own marketing strategies (posters, displays, music, invitations). They also created advertisements that promoted the Young Entrepreneur Learning Showcase at school.

Lesson 5: Business Plan & Show Preparations

This lesson concentrated on preparing business plans. The young entrepreneurs worked in teams and were responsible for preparing plans for hypothetical businesses. The teams also presented their plans to the group during a role-play activity. This exercise helped the children gather ideas for their own individual Business Plans which they displayed at the Young Entrepreneur Learning Showcase. They were encouraged to use their own personal styles to make their plans unique and interesting. Many children preferred to use their own handwriting and artwork to decorate the various sections. Others chose to use a computer for a more professional look. Final preparations for the Learning Showcase (colourful display, money box, float, etc.) were also discussed. Parents were encouraged to assist their child with getting organized for this exciting event.

Lesson 6: Evaluating Success

In this lesson, the students reflected on their achievements as young entrepreneurs. They discussed their own personal experiences, the effectiveness of their products and the importance of charitable giving. They also completed evaluation forms and a Business Income Statement.

Preparing for the Young Entrepreneur Show
The students gained real-life sales experience at the Young Entrepreneur Learning Showcase. This dynamic event provided an opportunity for the young entrepreneurs to showcase their businesses and earn money. It was also educational for the guests; students, teachers, parents and community members were invited to attend and benefit from seeing the young entrepreneurs in action.

Each student received a Business Planning Kit (student workbook) to make notes and track progress throughout the program. These Kits were aligned with the lesson plans and were used in classroom activities and for homework assignments. They contained questions, examples and tips to assist students as they developed each section of their respective Business Plans. Before the Show, each student compiled the information from their Kit into a creative, professional looking Business Plan. They also reflected their thoughts and experiences in a journal as they worked through the six lessons.

Assessing Learning

At the beginning of the year, I had the students in my class fill out Appendix E: Engagement Questions and used it as a base line to help me understand where my students felt they were along the engagement and self-learning process.

The PowerPlay Young Entrepreneur® program offered many opportunities to support learning through assessment in areas that include skill development, attitudes, level of awareness and commitment. Group discussions, planning sessions and implementation activities provided excellent occasions for me to observe the students in action. Further insight into the growth and development of specific individuals was gleaned from reflection sheets, self-assessment questionnaires and journals.

I used formative assessment throughout the business planning process to adjust instruction to
meet the needs of individual students. In addition, I had students bring in prototypes during the process which was an effective way to monitor progress with product development. I used comments during group discussions and entries in their Business Planning Kits to guide their comprehension of key concepts and mastery of new skills. The Young Entrepreneur Learning Showcase provided an ideal venue for assessing the final products, marketing materials and displays. The interactive nature of this event made it easy to observe the students in action as they interacted with customers and practiced their communication skills.

After the Learning Showcase, the students evaluated their success using Appendix A: Reflection Tool questions to guide them. They also re-assessed themselves on the engagement rubrics. Using the reflection tools, engagement rubrics, the students and my own personal journal, I sought to find common themes around hands-on learning and student engagement.

PowerPlay Young Entrepreneurs® shares similar philosophies, methodologies and desired learning outcomes with leading educational authorities throughout the world. A high emphasis is placed on experiential learning, critical and creative thinking, collaborative and self-directed learning, social responsibility and meaningful parental involvement. The program recognizes the need for flexibility in delivery to accommodate different interests, skill levels, abilities and learning styles. It satisfies curriculum-based learning outcomes for grades four to eight and can easily be integrated into different subject areas. This program covers many of the curriculum outcomes in Health and Career Education, Social Studies, Mathematics, English Language Arts, Fine Arts (Visual and Drama) and Social Responsibility. “The real value is that they are very enthusiastic about participating in a school program which consists of reading, writing and math. Regardless of their abilities, all students are engaged at a high level” (Coordinator of the PowerPlay Program).
Chapter 4: Program Analysis

It is important to look at all of the sections of the program, to focus on the goals of each lesson and to comment on personal observations and experiences around the project. Although this project has a very structured format, project based learning has components that are fluid dependent upon individual students’ strengths and challenges and the availability of resources. While students were learning specific skills during each of the lessons, I as the teacher was also learning about project based teaching and how it can fit in with learning outcomes. There is also a management piece that needs to be learned by the teacher when students are all working on different projects at all different ability levels.

Powerplay Young Entrepreneurs® shares similar philosophies, methodologies and desired learning outcomes with leading educational authorities throughout the world. A high emphasis is placed on 21st century competencies such as effective communications, experiential learning, critical and creative thinking, collaborative and self-directed learning, social responsibility and meaningful parental involvement. The program recognizes the need for flexibility in delivery to accommodate different interests, skill levels, abilities and learning styles. It satisfies curriculum-based learning
HANDS-ON PROJECT BASED LEARNING – THE KEY TO STUDENT ENGAGEMENT

outcomes for grades four to eight and can easily be integrated into different subject areas. While I believe that this program covers some of these areas and has many benefits, I also believe it has many shortfalls.

Powerplay Young Entrepreneurs® states that they are able to provide a dynamic learning environment in which students will develop skills and build self-esteem by exploring the world of business. While I agree the program provided business skills, I had a hard time finding evidence that it built self-esteem in the students. In addition, the company that created Powerplay Young

Entrepreneurs® stated that it specializes in helping young people prepare for our changing world. By breaking down the lessons I will argue that this does not hold to be true of the program. The majority of the students who experienced the program did have a lot of fun and learned some business skills. However, my goal for providing this program to my class was to try and engage my “non-engaged” gray area students with a new hands-on project based style of learning, which I feel, did not prove to be successful. The term “gray area” refers to students who is not achieving academically at grade level but the reasons are not clear. These are not students who are identified as per Ministry designations, but rather students who have challenges in one or more of a myriad of areas. It is my perception that many of my “gray area” students also appear to be suffering from the effects of poverty. This might best be described using Payne’s (2005) definition of poverty. “Poverty is characterized not only by lack of financial resources, but also the extent to which individuals possess other resources such as emotional stability, mental skills, spiritual guidance, physical health and mobility, support systems and role models” (2005, p.7). I will take a look at each of the six lessons and provide some of the strengths and limitations of the program.

Lesson 1 – Business Ideas and Goals
Key Objectives

- Describe three types of business and explain why manufacturing a product is best for this program.

- Identify their individual goals and the expectations for the program.

- Explain why businesses often donate to charities and give several examples of local charitable organizations.

The initial response once I introduced this program to my grade 6 class was of excitement, by the majority of the students. I found that those students who had a hobby, skill or an interest in a particular thing, knew right away what their product would be. Those students who were not involved in extra-curricular activities, or in their mind, they did not like to do anything or have a hobby, had a difficult time deciding what their product would be. Most of the gray area students that I was concerned about engaging, fit into this category. In addition, if the students had the parental support at home, then it helped to ease some anxiety about choosing a product. Sometimes if the students did not have a hobby but their parents did, then this helped to make the decision easier for the students. The parental support was an essential part of this program and in my class the problem was that those gray area kids lacked the parental support. How I could support them was the biggest challenge throughout the program.

During this lesson the students were asked to write down their personal goals. Samples provided in the student work book included: to have fun, earn money, learn how to start a business and to support a charity. The students ended up choosing one or more of these same goals. Did the majority of students meet these goals? Yes. Did these goals help them to understand 21st century competencies? No. Did they have to think critically or creatively to come up with these goals? No, they were
provided for the students and not one student wrote down a goal that was different from the sample.

Is it possible that if the students were to complete this program a second time their goals might change? Yes. Perhaps students were doing what we have been training them to do for years – regurgitate.

Students have not been encouraged to be risk takers.

The third objective of this lesson was to discuss giving to charities. The class had no problem identifying types of charities in our community and we were able to quickly decide by voting on the one we wanted to contribute to. At the beginning of the school year, I used a Social Responsibility Quick Scale (Appendix F) to assess the learners in my class. The British Columbia Ministry of Education has laid out some Performance Standards for each of the curricular areas, including Social Responsibility. The Quick Scale is one of these Performance Standards that is really just a rubric defining each learning area in terms of certain components and describing them in terms of not yet meeting, minimally meeting, fully meeting and exceeding the expectation. The majority of the students were all fully meeting expectations. Again, the gray area kids that I was concerned about fell in the not yet meeting criteria. Did I expect that this program was going to change those gray area kids into more socially responsible beings? Probably not, but that is what the programs states it will do. Were the children happy to be helping out others in the charity that they had chosen? Absolutely, but that is what one would expect from socially responsible students. My gray area kids, who had written it was their main goal to make money, who were not fully meeting social responsibility criteria according to the quick scale, were much more hesitant about giving up a percentage of their earnings.

Did socio-economic status play a role? Yes, I believe it did. Where resources are limited at home, those students are not willing to give up the extras. Another limiting factor for the low socio-economic status children was the buying of supplies needed for their product. Students were asked to
fill out a loan certificate with their parents if they needed to borrow money from them, with the intent on paying them back after they make sales. As a school we also hoped to overcome this obstacle by providing the materials for the students whom home could not support in this aspect. However, as Payne (2005) stated socio-economic status is not just about a lack of money. It is also related to a lack of parental support, lack of role model, emotional support and health. This was definitely the case for my “gray area” students. Upon talking to my students and their parents, it is known that many times, there is no parent at home when these students come home from school, no one to ask them how their day was or to check if they had homework. These students are raising themselves the best way they know how to.

Lesson 2 – Market Research and Business Operations

Key Objectives

- Conduct market research to determine product features (colour, size, shape, etc) that are important to their potential customers.

- Outline the operating plans for their own businesses.

I think this was a very beneficial lesson for the students. First, the students presented their prototypes to the class. Using formative assessment I was able to determine where each student was with their product and thinking towards their business plan. After discussions and questions from the class, each student was able to reflect upon whether they were reasonable in their price, quantity they were making and if people were interested in buying their product. They were also able to use their creative and critical thinking skills in order to determine certain product features. This lesson also benefited all types of learners as it had kids up and out of their desks surveying others in the class as
well as others around the school. They also charted their results which benefited the visual learners. Based on their survey results and feedback they had to hone their thinking skills and perhaps alter their original product design. This is an important 21st century competency and lifelong skill. You need to be able to reflect upon whatever it is you are doing in life and make necessary adjustments in order to be successful.

The other objective of this lesson was to outline the steps for operating their business, what kind of materials, tools and help they would need. Also very practical and relatable to everyday life, however, I believe that the students would have benefited more had they completed the operations activity before they made a prototype. I observed that the students were less resistant to change their prototype once they had already made one. If the survey and feedback from others had come before they made their prototype then they would take these factors into account.

*Lesson 3 – Money Plans*

*Key Objectives*

- Explain that money (an initial investment) is required to cover materials to get started in business.

- Describe the concepts of price, cost and profit and explain the relationship of these terms to business.

Money is a key concept of the world in which we live and understanding it is essential in our day to day life. This lesson was the most important one in the program. Some students came to the realization that their product was going to cost more to make than they were going to earn and therefore had to rethink their product or materials needed. One student realized she could borrow paint from the school or a friend, which cut her costs significantly. Another realized that she would not be able to purchase brand new t-shirts to design, she would have to look at using second hand ones if she wanted
to make a profit. Furthermore, the students had to gauge what an appropriate cost would be for their product based on what others would pay, especially taking into account who their customers would be. They did not want to price their items too high that no one would buy their product, or too low that they would lose money. They were able to gather this information from the surveys that they had completed previously.

This lesson also included a fun hands-on game that had the students moving up and around the classroom finding the prices and cost of certain items. This lesson took the universal design for learning into account and was beneficial to all types of learners and was practical. According to researcher Eric Jensen (2000), “Movement does several things for the brain. It enhances circulation so that neurons get more oxygen and nutrients. It spurs the production of hormones that enhance brain function and it stimulates the production of dopamine, a mood enhancing neurotransmitter” (p.167).

Contrary to all the positives in this lesson, this seemed to be the point in which I “lost” my gray area kids. Many students had already gone out with their parents and purchased their materials or looked into what it would cost them, with the exception of the kids from low income households without the parental support. They were able to use the internet and local store flyers to help them with pricing of their items. The school also provided items to some students, but again, there was no cost associated with this. Ideally we should have sat down and decided what it would have “cost” these students to “pay back” these items so they would gain that real world knowledge. But are they gaining that real world knowledge if we are providing them with the supplies? We have to consider what we want these students to learn: Do we want them to just be successful with the program and be able to participate in the Show with the rest of their classmates? Are we hoping that one day this program will resonate with them and they will decide to start their own business? Perhaps they cannot afford a
college certificate or university degree, but a small business will help them become successful or worthwhile members of the community?

A disadvantage that I came to realize quickly was that many students had the materials at home to produce their product. They did not in fact need a loan to purchase their materials. This of course, would not be a real life situation. Another issue that arose was that parents would lend their child money to buy the materials but would not require them to pay back the loan. Again, the students are not learning real world values if they are not expected to pay back their loans. Upon talking to the sponsor of the program, Envision Financial, a better idea would have been to make all students get a loan from the bank, which would loan the money to the school. It would be more practical to real life and they would learn better values and responsibility in paying back their debts. In addition, something else to consider, especially for the students who did not have to purchase supplies would be to research the cost of the supplies they would need. They could do this via the internet, but most beneficial would be actually stopping in at local businesses and checking our products and comparing prices. However, there is a lot more parent support needed in order to make this worthwhile and meaningful.

Lesson 4 – Marketing

Key Objectives

-Describe various types of advertising, such as individual ads, posters, invitations and brochures.

-Take action designing their individual marketing materials.

This lesson allowed for all the students to be engaged each at their own individual level, even the gray area kids that did not have their supplies or products were still able to participate in this lesson. We looked at various forms of advertising, put up posters around the school, and even made up slogans
and jingles about the products which the students then took turns every morning over our school PA system announcing to the school as a means of advertising. Most students were very excited to get the chance to talk on the PA system. Those students who were not as creative or artistic were able to use the computer to help them with their designs and advertising. We discussed TV commercials and how they are able to capture customers’ attention. This lesson had many features that were relatable to the students’ everyday lives.

A consideration for next time would be to extend that advertising beyond our school walls and into the community more.

Lesson 5 – Business Plan and Show Preparations

Key Objectives

-Recognize that they key to a successful business is a good plan, explain why a business plan is important and identify the PowerPlay Business Planning Steps (Goals, Product Description, Operations, Money Plan and Marketing).

-Identify some of the final preparations for making their selling experience successful (tablecloth, poster, display, products, change, cash box, people skills and confidence).

By this lesson students are either very excited or nervous (that their product won’t sell) for the Young Entrepreneur Show. A key aspect of being a successful Young Entrepreneur is the role that they play with the customers. We discussed how important it is to make eye contact, smile and speak clearly with their customers. We did some role play activities within the classroom; however it was hard for them to take it too seriously when they were just facing their classmates. It was good practice for others who are normally shy; they were able to practice in the security of their own classroom with
students they were comfortable with. Another key aspect of a successful show is how well the students display their items and capture their customers’ interest. One student was selling bath bombs and he brought in a basin filled with water so he could provide demonstrations on how his product worked. A few students even had created gift tags and packaging for their products (with parental assistance). They also took into consideration things like tablecloths, stands to display their jewellery on, change boxes and money for floats.

Since the main customers of the Show were other school aged children, my students had a hard time connecting the need for a business plan. They saw that it was important to do the planning and reflecting upon what might work, what materials they would need and how much money to borrow, which they had been doing all along this process in their workbooks. However, they were to bring their business plans with them to the Show, where they didn’t see a real need for them. Had more community member been involved, this might have changed. Furthermore, a consideration for next time would be to have the students present their business plan to the “bank,” in this case Envision Financial which were our sponsors, so that the students would have to show that they have thought out this business process in order to ask for a loan, again, making it more applicable to real world experience for them.

Lesson 6 – Evaluation Success

Key Objectives

- Explain how they were personally successful and how they can build on their experience in the future.

- Identify the amount of profit earned and evaluate the success of the product.

- Recognize their ability to make a positive social impact by donating to a worthy cause.
Show day, the real chance to assess which students were successful with the program and to see if the ones that had been promising me something was being made at home actually came through. While the majority of students were setting up their displays, one grey area student was madly scrambling to create the art work he should have completed during the last two months, but according to his business plan was supposed to be candles. Another grey area student, told me he “left his products at home.” He was one of the students whom, was given school time, resources and adult help to create his project. I asked him to go home and get his product, picture frames, which is the product he had been adamant about choosing from the bringing of this program. He replied he wasn’t sure where they were, which I knew to be a lie because I had seen his frames on the back counter before school this morning. Unbeknownst to him, I searched everywhere in the classroom, but could not find where he had hidden the frames. Why did he not want to take part in the Show? Was he afraid he would not sell his products? We had “customers” in place to ensure that every child was at least selling a few items to ensure that they felt successful. This is one example of a student who the program did not engage.

Overall, the Show (which was held over two days) was really successful. Many students sold out the first day. Some students decided it would benefit them to produce more products for the second day, others opted out noting that it would be too time consuming and costly. The conversations around the pros and cons of their decisions were really great to listen to. I was able to assess how well they actually understood the process. The students filled out a reflection sheet about what they enjoyed most, what they learned, and what they would do differently next time. Overall, most students’ favorite moment of the program was making their first sale because it made them feel like they accomplished something. Many learned that making money takes time and hard work. Some found out that they had
competition and had to lower their price or add something to their product to make it more attractive. Something students would change in the future is to make a simpler product which is easier, cheaper and faster to produce. Advice they had for others, is to make something that is popular and affordable.

We then counted our profits and allocated ten percent from each student’s profit that was to go to our charity, BC Children’s Hospital. We made over $100 for our charity that the students were really excited about and recognized their ability to make a positive social impact.

The key outcomes for this program were for students to: gain real business experience by developing and marking their own products; work with other students to learn teamwork, problem-solving, business and money management skills; utilize and hone creative, communicative and abstract thinking abilities; prepare business plans, design marketing materials and evaluate their experiences as entrepreneurs; showcase their business (and make sales) in a Show for family, friends and community; experience the satisfaction of donating to a charity or other worthy cause. Were many of these outcomes met? Yes. Most students enjoyed this program. They enjoyed making the product, selling their product, interacting with potential buyers and working with parents to make the product. Students also enjoyed showing their prototypes to the classroom visitors from Envision Financial. The big lesson the students learned is that it is not simple to make money. If they wanted to make a profit, they had to put in an enormous effort to get ahead. They had fun with the games and exercises and it gave them a chance to move around the classroom. The program was cross-curricular and connected to many subject areas. It was easy to implement and it had great guidelines for lessons. However, it did not engage those at risk, grey area kids as I had anticipated. The students that were most successful were the ones with the good home support.

The PowerPlay Young Entrepreneurs® program sent an Educator Feedback form and part of
that was a rubric that asked to assess the class in the areas of skill development, attitudes towards learning and changes to the behaviour and beliefs of students by the end of the program. The scale varied from Static – No movement. Following the program students feel no need or wants for change. Aware – As a result of the program the students recognize the need for opportunity to change and feel empowered as to how to go about it. Making changes – As a result of the program, students have or will take concrete steps to change behaviour/attitude. Seeing results – Able to report/demonstrate positive benefits as a result of changes made. The following areas were to be assessed: behaviour in class or at school; attendance at school; attitude toward learning; interpersonal communication skills; decision making/problem solving skills; self-esteem/confidence. Looking at the data, about 75% of students were in the “aware” area of behaviour in class; 100% of the students remained “static” when it came to attendance; 65% were “aware” when it came to attitude toward learning, the largest area of growth; 60% of students were “aware” of how to improve interpersonal communication skills but approximately only 10-15% of students showed “results”. 40-45% of students increased their “awareness” of problem solving/decision making skills, but wasn’t able to apply elsewhere once program was completed; and 50% of students showed improvement in their self-esteem and self-confidence throughout the program, while approximately only 20% were able to show that growth after the end of the program.

A question that still remains is why were more students not motivated to change these behaviours? Motivation is closely tied to self-efficacy, which is defined as, “a belief about one’s ability to be productive and effective” (Greenstein, 2010, p.91). As Bandura (1994) puts it, “Self-efficacy beliefs determine how people feel, think, motivate themselves, and behave” (p.72). Students with a high degree of self-efficacy are more likely to challenge themselves, believe that a lack of
success is something they can personally remediate, and recover quickly from setbacks. Students with a lower degree of self-efficacy believe they cannot be successful and, therefore, avoid challenges (Greenstein, 2010). Self-efficacy is related to how people think about themselves. Motivation and engagement are directly related to self-esteem which is a close partner of self-efficacy. These relate back to the issues around poverty and even to Maslow’s hierarchy of needs. I believe that if students feel that they have nothing in their “toolbox” in terms of skills, knowledge, support, finances, health and social emotional strength, then they will not have a foundation to build on. Their “toolbox” is empty and a sense of hopelessness is a result. Our challenge as educators is to stack that “toolbox” and help students see possibilities and abundance. It is only then that students will take up a challenge and take a risk.
Chapter 5: Summary and Conclusions

“One of the reasons people stop learning is that they become less and less willing to risk failure.”
- John W. Gardner

There is a common thread that runs through this project and it is one around taking a risk. The three elements that are a focus of this study all involve taking a risk. Any kind of growth that involves trying something new, stretching what already exists, or questioning practice involves risk at some level. Taking a risk in any of these ways invites the possibility of failure, but it also invites the possibility of success and improvement. Inquiry is at the root of improvement and innovation. We want our students to use inquiry as a model for their learning. We want them to question themselves and the world around them. We want them to take a risk by asking new questions and trying new things.

The initial focus of this project was to look at relationships as a part of learning in a project based learning environment. Indeed perhaps relationship should be a fundamental focus for all
The relationship between teacher and student is a personal one while maintaining its “business” framework. It is essential for teachers to know their students. It is not enough to just know about the student’s learning style, they must also learn about the student as a person. Teachers need to come to know the student in terms of who they are, but the magic of the teacher-student relationship comes in the teacher seeing who the student could be. Teachers need to know their students in order to guide them toward possibilities.

In turn the teacher must be willing to share some of their “personhood” with their students also. That is relationship. Growing relationships are built around trust, and to get to that place of trust where students can share their vulnerabilities the teacher must be willing to reveal an appropriate amount of their own personhood. Students need to be able to identify with their teacher, see the teacher as someone who understands, and see the teacher as a role model. Gone are the days when teachers held themselves distant from students, staying behind their desks and using text books as a barrier to relationship. In order to prepare students for the world of the future and to encourage students to take risks, ask questions, and be innovative they need to have the benefit of positive relationships with teachers.

Project Based Learning is not a new concept. Primary teachers have, perhaps unconscientiously, been practicing Project Based Learning for many years. It is however new to the intermediate and secondary programs. Project Based Strategies are parallel to universal designs for learning. They start with the end in mind. The focus of instruction is not so much about the path of learning, but more about the end result. If teachers know their students with their spectrum of interests, capabilities, and skill sets they can expect that the path to learning will look different for each student. Project based learning means that students may be learning in different ways at the same time. Learning will be more about skill acquisition as opposed to information acquisition. Skills are learned
in different ways and at different paces. Teachers in a project based setting can expect that students will use a variety of resources and strategies in order to build a skill set, and that that skill set will not be uniform. In order for teachers to allow students to learn at their own pace and develop skills in their own way a couple of things need to happen. First, teachers must give up a level of control over the learning. That does not mean that “anything goes”, but rather that students are guided rather than led. For many teachers that “letting go” of control means taking a huge risk. Teachers may fear that mayhem may result and that students will waste the time and that no learning will take place. The structure of Project Based Learning is more loose. It means checking in with students constantly and teaching students to take a degree of responsibility for their learning.

Additionally, teachers need to prepare students for Project Based Learning. Significant time must be allowed to teach students about the tools at their disposal. Lessons around research sources and finding good information are key. Students need to learn about models for presentation including writing skills, graphing and diagram presentation, power point and other electronic methods, as well as skills around public speaking and display.

For many teachers changing practice is a huge risk. They have developed their present repertoire because they believe that it is what “works” for students. It is difficult to admit that students are not engaged and even more difficult to commit to making a change that might increase engagement and learning. Using inquiry and the cycle of change may be the most significant professional development that a teacher may experience.

The third component examined was a new model of assessment where students are more actively involved in assessment for learning. In the same way that changing teaching practice involves risk, so too does changing assessment practices. It is that loss of control that is uncomfortable for many teachers. The focus of assessment shifts from end result assessment (assessment of learning) to
progressive assessment which is part of the learning. Assessment then becomes a shared responsibility between the student and the teacher. This change means that teachers need to “let go” of all of the control around assessment, be willing to discuss assessment with students as they learn, and be willing to share an assessment tool in order to encourage reflection and discussion.

The British Columbia Ministry of Education Performance Standards are useful tools for both teachers and students. In this project the Standard for Social Responsibility was used by both the teacher and the student as a self-assessment. It is useful for both teacher and student to use the same tool with the same language. It allows for better reflection and discussion that is guided by the tool. Risk and growth seem to go hand in hand. Project Based Learning has the potential to nurture growth and learning for students. It could be just the right strategy to increase engagement for those students who feel disengaged and lacking in ownership of their learning. Teachers who can successfully learn to manage the fluidity that is part of this learning strategy will realize some of these benefits. Isn’t it worth the risk?

My three personal teaching objectives were around relationship building, both between me and my students, as well as among the students themselves, experiencing project based learning as a teacher, as well as incorporating formative assessment in the process.

There are two aspects to the relationship piece. One was about developing a closer relationship with my students. This felt like a natural part of my teaching style. The loose structure and the group activities allowed me to talk to students one on one and in small groups settings. The nature of the assignments allowed me to get to know about the students personal interests and skills. I believe that the personal relationship between teacher and student is key to student engagement and belonging. My experience with this project validated Marzano’s (2011) statement about the importance of relationships.
The second aspect is about the relationship between and among students. Project based learning allows students many opportunities to learn from each other. Students learned skills around networking and collaboration. This is a skill for the future.

The second objective of this project was to take a look at project based learning as a teaching strategy. Using project based learning in intermediate and secondary classroom is a relatively new concept. I found this a valuable strategy to add to my repertoire as learning did take place. The fluidity and loose structure suited my personal teaching style. I wanted them to increase engagement by engendering curiosity. My own curiosity in the project rubbed off on the students as I saw them take ownership of their projects. I can see how project based learning can address individual student passions as they are able to make projects that reflect their own passions and interests. Along with developing curiosity and finding passions, I wanted my students to increase their levels of confidence both internally and externally. I wanted them to feel that their ideas were good and that they had the capabilities to complete the project. I also wanted them to feel more confident in terms of presentation and communication. Although this project appeared to have a direct relationship with a real life scenario, I felt that students had difficulty making the connection between the synthetic nature of the project and its real life implications.

While I see the benefit of incorporating a program such as Young Entrepreneurs, it is still just a program, something you start, something you finish that comes to an end, which I found, much like the students’ learning. While the program was implemented, the majority of students were engaged and motivated in what they were learning, however, once the program was finished the students were not able to transfer many of those skills. Could an issue have been the age group that was chosen? Had we implemented this program at a high school level where it might be more relevant to making a career
choice, would this program have had more lasting success and lead to life-long learning?

The last objective in the project was to look at how formative assessment fit into project based learning. With this project I found it to be a very good fit. Students were able to use the Social Responsibility Performance Standard in an effective way. Although they touched upon the use of a rubric as an assessment tool, students did not have an opportunity to develop a rubric or use it as progressive assessment for reflection.

Implications

This project supported the use of project based learning in intermediate classrooms and it saw possibilities for its use in secondary programs. In fact, it may be a better fit for older students in that it allowed more student involvement in the learning and it’s individualized in terms of interest. The opportunities for discussion and reflection are more suited for older students who are more capable of complex and deeper thinking. This teaching strategy necessitates more management and less planning. Teachers need to be comfortable giving up control of the path to the learning while maintaining control of the learning goals. It is more about guiding than it is about leading.

Recommendations for the Future

If I were to repeat this project I would recommend a few changes and additions. It is important that students all start on a level playing field in terms of resources. Some students had access to money and ready materials at home, while others had no resources available. I think it’s important for
everyone to start with the same level of resources. Although we know that in life “fair isn’t equal” in this learning situation I believe that fair is equal. The financial intuition that supported this project could have lent money to students in order for everyone to have the same financial opportunity.

There were many missed opportunities for community involvement. It would be valuable for students to listen to guest speakers who had started their own businesses. The Chamber of Commerce was a partnership that could have been established. There are also many manufacturing businesses in our community. A tour of a manufacturing company would have been appropriate. Many community connections would have enriched this project and increased engagement.

The assessment piece did not run all through the project. Students missed the opportunity to use assessment as learning. It would have been interesting for students to make their own assessment rubric for their own end product and then use that assessment tool upon completion. Reflection and assessment go hand in hand. Although students did journal a couple of times, metacognition is nurtured through reflection and journaling. Formative assessment is most effective if it is used for, as and of learning. If a teacher were to teach assessment as an integrated part of the learning then to be really start from the ground up the teacher would have the students make their own rubric for the product. In this way the student would have to have an intimate understanding of what the end result looks like, as well as an appreciation of what the leveled steps to a prime end product are. They need to describe the product in terms of the elements of the product as well as defining each element categorically as "not yet meeting", "minimally meeting", "meeting", or "exceeding". This exercise will define the product and the challenge of the task. It is the framework of the project. It would be advisable to use the terminology of the Provincial Performance Standards for ease of transference to other lessons and other projects.
Once a performance rubric is developed and the student has a clear idea of what the end product should look like then the teacher needs to teach students the importance of measuring their progress using the rubric. "Check and check often" could be the theme when using the rubric. Students need to continually compare their progress to the rubric to ensure that all of the elements of the rubric are being addressed as well as using it to ensure that the product is of the highest quality in each of those element areas.

Finally, it is key to use the student developed rubric in order to assess the end product. Assessment is a joint collaborative effort with both the teacher and the student being involved with the development of the rubric, the use of the rubric during the project and finally the use of the rubric in terms of the final assessment.

Emerging Issues – Poverty and Vulnerability

An enduring question throughout the program was about engaging vulnerable learners. Even though changing the socio-economic status of my students is beyond my control, I can continue to ask myself this question: How do I adjust my teaching so that all students can be successful?

An emergent issue that arose early on in the project was the distinct disadvantage students living in poverty had over the general population. Remember that the definition of poverty is broad as defined by Payne (2005). Students who have no or minimal parental support at home had a more difficult time coming up with a product. Students who had no financial resources may have had good ideas but could not bring their ideas to fruition. And then there is the issue of low self-esteem and hopelessness. Students who have lived in disadvantaged financial situations, poor health, emotional
stress, or family dysfunction lose their belief in themselves and in the future. During this project, I observed two opposing outcomes. Both of these “gray area” students were from similar backgrounds, no parental support, limited financial resources and family dysfunction. However, the distinguishing feature seemed to be self-esteem and rapport with classmates. On the one hand, the student who lacked self-esteem, saw an unsuccessful future for himself and had no close “friend” in the class, actually physically hid his project when it came time for the Show. The other student, who was a bit more confident in herself and had a strong connection with one of the students in the class, ended up producing a product to sell at the Show (even though it was not her original product). I believe that in these cases self-esteem played a major role in the success or failure of these students. Teachers need to be cognisant that students are living in poverty and we have a moral imperative to help those students overcome some of their disadvantage. It’s about changing student perspective in terms of capabilities and the abundance of life.

How can the processes and ideologies of this packaged program be extended for more holistic classroom use? Student engagement for grey area students is a major issue. How do we inspire enthusiasm for life in students who live a life with elements of hopelessness? This requires more research and discussion. Our educators are still challenged with this issue.

What do teachers need to do or adjust to make project based learning the norm? I might suggest that letting go some of the power-control aspects of teaching has to happen. There is a level of disorganization around project based learning. Teachers need to learn to guide students in that type of environment. Educators need to focus on relationships. Getting to know your students and sharing personal experiences is key. The project based classroom needs to have a foundation built on trust. It needs to be an environment that encourages personalized learning. It needs to be a place where both
students and teachers are allowed to be risk takers. We are not there yet…but we are getting there. This project is a first step.

**Conclusion**

During the process of this project I have validated my beliefs about the connection between relationship, motivation and engagement of students. I have also reinforced my understanding of the importance of these concepts in teaching and moving students forward.

The interconnectedness of the themes of relationship, engagement, and the role of collaborative assessment became very apparent as I studied the research related to these topics. I have a better understanding of how the themes build on one another. The importance of relationship as a starting place reverberated throughout the project. As a teacher I know that spending time getting to know students is key. It is the way that we build trust and understanding. It is a piece of the social connectedness that is part of learning. Once students feel comfortable in school and feel that they have a sense of belonging then we can move forward with engagement and learning.

Teaching and learning is all about relationship. As a teacher I need to know my students well. I need to also know and be intimate with the skills that my students need to move forward in life. I need to not only demonstrate enthusiasm for innovation and learning but to live it. This makes me a learner too. Educators are never finished learning. One question leads to the next. As a teacher and learner I need to ask "Who are my students?", "What are their interests and passions?", "What skills or qualities
Learning is not a finite concept. It is always in a state of flux and growth.

As a researcher I have come to appreciate the importance of looking at the bigger picture. It gives me a different perspective about the relationship between the human qualities of learning. It has also made me look at structures that can enhance learning and innovation. Teaching and learning are complex processes. The factors that lead to success are fluid. A good teacher must blend the knowledge of his students with the skills needed for success in life. Nurturing passions and fostering engagement involves active talking and listening. It is a continual learning process for all involved. It is all of these combined elements woven together that make teaching and learning exciting. It is the tapestry of life.
References


Greenstein, L. (2010). *What Teachers Really need to know about Formative Assessment*. Alexandria,


Appendices

Appendix A: Reflection Tool

Student Name: ___________________________________________ Reflection Date: _____________
Project Name: ___________________________________________

Looking at your final project, reflect on the process. Use your goal sheets and your mid-project reflections to answer the questions. Reflections can be submitted electronically or on a separate piece of paper.

1. What level of personal effort did you put into your project?

____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

2. If you were to redo your project, what would you change about it? Why would you change it?

____________________________________________________________________________
____________________________________________________________________________
3. The next time that you do a project, what skills/strategies did you learn that you will take with you?
_____________________________________________________________________________
_____________________________________________________________________________

4. What did you learn most about yourself during this process? Please explain.
_____________________________________________________________________________
_____________________________________________________________________________

5. Did you enjoy participating in this project? Why or Why not?
_____________________________________________________________________________

6. What did you like/dislike about learning through this project?
_____________________________________________________________________________

Appendix B: Student Engagement Tool
**Appendix C: Characteristics and Outcomes of Student Engagement**

<table>
<thead>
<tr>
<th>Engagement in and commitment to the Community of Learners</th>
<th>Emerging</th>
<th>Developing</th>
<th>Applying</th>
<th>Extending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participates in learning opportunities with direct support.</td>
<td>May need prompting and/or guidance to participate in learning opportunities</td>
<td>Consistently participates in learning opportunities</td>
<td>Participates in and contributes to learning activities; often takes on extra responsibilities</td>
<td></td>
</tr>
<tr>
<td>Self assesses to recognize strengths and challenges as a learner with direct support.</td>
<td>Identifies some learning strengths and challenges. May need support to set goals</td>
<td>Recognizes own strengths and challenges as a learner and sets goals to improve learning</td>
<td>Recognizes own strengths and challenges, sets goals for continuous improvement, and supports others</td>
<td></td>
</tr>
<tr>
<td>Can describe and monitor own learning only with guidance and direct support.</td>
<td>Developing ability to describe and monitor own learning processes. May need support to self regulate.</td>
<td>Recognizes and uses various tools and strategies to support learning and demonstrate understanding.</td>
<td>Self regulated in choosing tools and processes to support learning and can coach others to do the same</td>
<td></td>
</tr>
<tr>
<td>Will participate in and contribute to learning community with only with guidance and direct support.</td>
<td>Recognizes some of the benefits of participation in a learning community. Needs some prompting or encouragement</td>
<td>Shows a growing sense of responsibility to the community of learners (i.e. gives and accepts feedback, supports others)</td>
<td>Demonstrates commitment to the community of learners and extends this commitment beyond the classroom context</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Awareness</th>
<th>Developing</th>
<th>Acquiring</th>
<th>Action/Advocacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community-based consciousness</td>
<td>Demonstrates emerging awareness of local and global issues.</td>
<td>Demonstrates knowledge of, and respect for local and global issues.</td>
<td>Demonstrates knowledge of and respect for local languages and cultures with a commitment to advocacy.</td>
</tr>
</tbody>
</table>
## Characteristics and outcomes of student engagement

<table>
<thead>
<tr>
<th>Definition</th>
<th>Social Engagement</th>
<th>Academic Engagement</th>
<th>Intellectual Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors Influencing Engagement</td>
<td>Meaningful participation in the life of the school</td>
<td>Active participation in the requirements for school success</td>
<td>Serious emotional and cognitive investment in learning</td>
</tr>
<tr>
<td>School teams, clubs, student government, and school-wide campaigns such as environment week</td>
<td>Defined curriculum outcomes</td>
<td>Individual student effort</td>
<td>Instructional challenge characterized by:</td>
</tr>
<tr>
<td>Positive relationships with peers and adults</td>
<td>Assignments, tests, and marks</td>
<td>High expectations for success</td>
<td>- Curriculum as discipline</td>
</tr>
<tr>
<td>High expectations for success</td>
<td>Positive classroom disciplinary climate</td>
<td></td>
<td>- Exploration, understanding of concepts</td>
</tr>
<tr>
<td></td>
<td>Intellectually challenging lessons</td>
<td></td>
<td>- Development of ideas through the disciplines and through work on authentic problems</td>
</tr>
<tr>
<td></td>
<td>Teacher and parental encouragement</td>
<td></td>
<td>Individual and collective knowledge building</td>
</tr>
<tr>
<td></td>
<td>Direct and indirect consequences</td>
<td></td>
<td>Effective learning time</td>
</tr>
<tr>
<td>Developmental Outcomes</td>
<td>Friendships, social networks, sense of belonging, self-confidence, and often enjoyment of school</td>
<td>Academic success, credit accumulation, and high school graduation. Post-secondary destinations. Orientation to good work and personal responsibility.</td>
<td>Confidence as knowledge-builders, problem solvers, conceptual thinkers, self-motivated learners. Orientation to original work and often collaboration.</td>
</tr>
<tr>
<td>Engaged Canadian Students</td>
<td>Emma was an obviously bright student with a talent for music and drama that she expressed through participation in the school's premier jazz ensemble and drama club. When at school, she could be found in the music room. Although school work came easily to her, she skipped many classes and left school at 17 without a graduation diploma. Her social skills and self-confidence enabled her to find office work. A supervisor eventually persuaded her to take post-secondary studies as a mature student.</td>
<td>Johanna's family had high expectations for her to be the first to go to university. A good student, she rarely skipped a class and worked late into the night to keep on top of her school work. She maintained a part-time job working at least 17 hours per week because her family was unable to provide more than the basics. She resisted group projects or extracurricular activities in order to focus on getting good grades and a university place. She hoped that life after high school would be less stressful for her.</td>
<td>From an early age, Aleem was a curious child fascinated by the world around him. Following the death of a childhood friend from cancer, he became determined to understand the disease and help overcome it. He dug deeper in this science classes and entered a number of projects in science fairs where his work attracted the attention of some research scientists. He began working in their labs during the school year and holidays. His plans include university studies that will allow him to pursue a medical research career.</td>
</tr>
</tbody>
</table>

Adapted by Kaser & Halbert from the first national report May 2009
*What did you do in school today?*  
Canadian Education Association
Characteristics and outcomes of student engagement
(adapted from rubric)

Do you enjoy coming to school? Why or Why not?
______________________________________________________________

Are you involved in any extra-curricular activities? (leadership, school sports teams, etc.)
If not, why? If so, which ones? Why did you join?

Do you get along well with others? Why do you think that is?

Are you able to work out problems with your friends? If so, how? If not, why?

Do you feel like you belong?

Do you have a good relationship with teachers or adults in the school? How do you know?

Do you feel comfortable talking to any of the adults if you had an issue?

Do you get good grades in school? Why do you think this is?

Do you try your best or do you feel like you should be putting in more effort?

Do you find school challenging? Why do you think this is?

What do your parents say about education and schooling?

Are you self-motivated to start on your homework or do you need reminders?
Why do you think this is? _____________________________________________________________

Do you try new things on your own or do you have to be encouraged? ________________________

When do you produce your best work? ____________________________________________________

What does success in school look like to you? _____________________________________________

Are you planning on going to college/university? __________ to do what? _____________________

Do you feel teachers encourage you to try your best? ______

Is there a positive climate in the classroom? ______ Why or why not? ________________________

________

What are your parents’ expectations for you in regards to school? ___________________________

________

Do you explore concepts that you learned at school on your own time? ______ Why or why not?  

________

Do you question the things around you? __________ Do you think of yourself as a problem solver? ______

Why do you think this? ______________________________________________________________

Do you work well with others? _____ What skills do you need in order to work well with others? __

__________________________________________

How do you think school connects to real life experiences? ________________________________

How is school going to help you later in life? _____________________________________________

__________________________________________

Appendix E: Grade 6 Curriculum Learning Outcomes
**Health and Career Education**

*Goals & Decisions*

- **A1** Describe planning techniques that can help to support goal attainment (e.g., time management, setting priorities, considering costs and resources).
- **A2** Identify influences on goal setting and decision making, including family, peer and media influences.

*Career Development*

- **B1** Relate personal attributes to various types of work.
- **B2** Describe transferable skills that are developed through school and recreational activities (e.g., teamwork, organization, creativity).

**Social Studies**

*Skills & Processes of Social Studies*

- **A1** Apply critical thinking skills - including comparing, classifying, inferring, imagining, verifying, identifying relationships, summarizing, and drawing conclusions - to a range of problems and issues.
- **A4** Deliver a formal presentation.
- **A5** Implement a plan of action to address a selected local or global problem or issue.

**Mathematics**

*Number*

- **A6** Demonstrate an understanding of percent (limited to whole numbers) concretely, pictorially, and symbolically.
<table>
<thead>
<tr>
<th><strong>Power PLAY</strong></th>
<th><strong>Curriculum Connections</strong></th>
<th><strong>Lesson/Event</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>young entrepreneurs</strong></td>
<td><strong>British Columbia - Grade 6</strong></td>
<td><strong>L1</strong></td>
</tr>
<tr>
<td><strong>A8</strong> Demonstrate an understanding of multiplication and division of decimals (1-digit whole number multipliers and 1-digit natural number divisors).</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Patterns &amp; Relations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B1</strong> Demonstrate an understanding of the relationships within tables of values to solve problems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B2</strong> Represent and describe patterns and relationships using graphs and tables.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Statistics &amp; Probability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D2</strong> Select, justify, and use appropriate methods of collecting data.</td>
<td></td>
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</tr>
<tr>
<td><strong>D3</strong> Graph collected data and analyze the graph to solve problems.</td>
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<tr>
<td><strong>English Language Arts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Oral Language (Speaking and Listening)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>A1</strong> Use speaking and listening to interact with others.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>A2</strong> Use speaking to explore, express, and present a range of ideas, information, and feelings for different purposes and audiences.</td>
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</tr>
<tr>
<td><strong>A3</strong> Listen purposefully to understand and analyze ideas and information.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>A4</strong> Select and use strategies when interacting with others.</td>
<td></td>
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</tr>
<tr>
<td><strong>A5</strong> Select and use strategies when expressing and presenting ideas, information, and feelings.</td>
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<tr>
<td><strong>A6</strong> Select and use strategies when listening to make and clarify meaning.</td>
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<tr>
<td><strong>A7</strong> Demonstrate enhanced vocabulary knowledge and usage.</td>
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<tr>
<td><strong>A9</strong> Use speaking and listening to improve and extend thinking.</td>
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<td></td>
</tr>
<tr>
<td><strong>Reading &amp; Viewing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B2</strong> Read fluently and demonstrate comprehension of grade-appropriate information texts with some specialized language.</td>
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<tr>
<td><strong>B4</strong> Demonstrate comprehension of visual texts with specialized features (e.g., visual components of media such as magazines, newspapers, websites, comic books, broadcast media, videos, advertising, and promotional materials).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Power PLAY Curriculum Connections**

**British Columbia - Grade 6**

<table>
<thead>
<tr>
<th>Lesson/ Event</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L4</th>
<th>L5</th>
<th>Y.E.S.</th>
<th>L6</th>
</tr>
</thead>
<tbody>
<tr>
<td>B6</td>
<td>✨</td>
<td>✨</td>
<td>✨</td>
<td>✨</td>
<td>✨</td>
<td></td>
<td>✨</td>
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<tr>
<td>B7</td>
<td>✨</td>
<td>✨</td>
<td>✨</td>
<td>✨</td>
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<td>✨</td>
</tr>
<tr>
<td>B8</td>
<td>✨</td>
<td>✨</td>
<td>✨</td>
<td>✨</td>
<td>✨</td>
<td></td>
<td>✨</td>
</tr>
</tbody>
</table>

**Writing and Representing**

- **C1** Select and use strategies during reading and viewing to construct, monitor, and confirm meaning.
- **C2** Select and use strategies after reading and viewing to confirm and extend meaning.
- **C3** Respond to selections they read or view.
- **C4** Write a variety of clear, focussed personal writing for a range of purposes and audiences that demonstrates connections to personal experiences, ideas, and opinions.
- **C5** Write a variety of effective informational writing for a range of purposes and audiences that communicates ideas to inform or persuade.
- **C6** Create meaningful visual representations for a variety of purposes and audiences that communicate personal response, information, and ideas relevant to the topic.
- **C7** Select and use strategies before writing and representing.
- **C8** Use writing and representing to express personal responses and relevant opinions about experiences and texts.
- **C9** Use writing and representing to extend thinking.
- **C10** Use the features and conventions of language to express meaning in their writing and representing.

**Fine Arts - Visual Arts**

**Image-Development & Design Strategies**

- Develop and make 2-D and 3-D images.

**Context**

- Identify personal and career opportunities in visual arts.
- Demonstrate respect for the work of self and others.
- Demonstrate the ability to collaborate to develop a group display for a particular audience.
<table>
<thead>
<tr>
<th>Fine Arts - Drama</th>
<th>Lesson/ Event</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exploration &amp; Imagination</strong></td>
<td></td>
</tr>
<tr>
<td>Express ideas and emotions using verbal and non-verbal communication.</td>
<td>✫</td>
</tr>
<tr>
<td>Demonstrate social and group skills in dramatic work.</td>
<td>✫</td>
</tr>
<tr>
<td>Apply constructive feedback to refine their dramatic work.</td>
<td>✫</td>
</tr>
<tr>
<td>Demonstrate the ability to collaborate when combining ideas in dramatic work.</td>
<td>✫</td>
</tr>
<tr>
<td><strong>Drama Skills</strong></td>
<td></td>
</tr>
<tr>
<td>Demonstrate commitment to roles.</td>
<td>✫</td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td></td>
</tr>
<tr>
<td>Apply audience skills appropriate to a variety of presentations.</td>
<td>✫</td>
</tr>
<tr>
<td><strong>Social Responsibility - Performance Standards</strong></td>
<td></td>
</tr>
<tr>
<td>Contributing to the Classroom and School Community</td>
<td>✫ ✫ ✫ ✫ ✫ ✫ ✫</td>
</tr>
<tr>
<td>Solving Problems in Peaceful Ways</td>
<td>✫ ✫ ✫ ✫ ✫ ✫ ✫</td>
</tr>
<tr>
<td>Valuing Diversity and Defending Human Rights</td>
<td>✫ ✫ ✫ ✫ ✫ ✫ ✫</td>
</tr>
<tr>
<td>Exercising Democratic Rights and Responsibilities</td>
<td>✫ ✫ ✫ ✫ ✫ ✫ ✫</td>
</tr>
</tbody>
</table>
## Appendix F: BC Ministry of Education Social Responsibility Quick Scale

### Quick Scale: Grades 6 to 8 Social Responsibility

The Quick Scale presents summary statements from the four categories in a two-page format for ease of use. In most cases, these scales can be used to evaluate student development anywhere during the year. In the Evaluation Scale, each of the four categories is printed on a separate page.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Not Yet Within Expectations</th>
<th>Meets Expectations (Minimal Level)</th>
<th>Fully Meets Expectations</th>
<th>Exceeds Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributing to the Classroom and School Community</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unwilling or unable to solve interpersonal problems; may be unfriendly or uncooperative</td>
<td></td>
<td>Usually friendly and open to others, accepts others' feelings, and shows empathy</td>
<td>Routinely kind and friendly, and helps and includes others if asked</td>
<td></td>
</tr>
<tr>
<td>Solving Problems in Peaceful Ways</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unwilling or unable to solve interpersonal problems; may be unfriendly or uncooperative</td>
<td></td>
<td>Usually respectful to others and accepting of differences, but may not use the word respect</td>
<td>Usually treats others fairly and respectfully</td>
<td></td>
</tr>
<tr>
<td>Valuing Diversity and Defending Human Rights</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often disrespectful and may avoid or be negative towards those perceived as different in some way</td>
<td></td>
<td>Shows some sense of community and an interest in making the world a better place</td>
<td>Shows a sense of community and an interest in making the world a better place</td>
<td></td>
</tr>
<tr>
<td>Exercising Democratic Rights and Responsibilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacks a sense of community or an interest in making the world a better place</td>
<td></td>
<td>Shows some sense of community and an interest in making the world a better place</td>
<td>Shows a sense of community and an interest in making the world a better place</td>
<td></td>
</tr>
</tbody>
</table>