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Twenty-first century learning, technology, and the impact on student engagement

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**TWENTY-FIRST CENTURY LEARNING, TECHNOLOGY,
AND THE IMPACT ON STUDENT ENGAGEMENT**

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Abstract

The purpose of this study was to investigate the relationship between twenty-first century instructional methods and student learning experiences. To do so, a typical and representative group of eight students was selected for qualitative interviews which ascertained student perception of their engagement in a typical New Media class. The study determined the perceived impact of a "student-centered instructional approach to video creation" on levels of student engagement in order to understand the nature of engagement and how they moved towards higher levels of independent learning. Transcripts of these interviews were used to identify a thematic structure of student perceptions of their engagement in a classroom where a "student-centered instruction approach to video creation" was used. Lastly, using the teacher's professional reflections, notes, and anecdotal reports from the class, students' stories of engagement were created to illustrate each unique journey toward self-engaged independence from the teacher's perspective. The results of this data pointed to three meta-themes. Meta-theme 1: Positive Relationships and Affective Climate, Meta-theme 2: Personalized, Student-centered Supported Independence, and Meta-theme 3: Accelerated Lift and Independent Learning.

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Chapter One: Introduction

Overview

The changing world of technology brings with it a complex set of questions which have altered our understanding of how and why students learn. Strides have been made with innovative learning environments, online and off, and numerous unique instructional practises have been enhanced through the inclusion of technologies. But the question of how the use of such technology is affecting student perceptions of schooling is only beginning to be explored. Student engagement and twenty-first century teaching practises have become catch phrases of today's educational system, but those are still in their nascent form and require further study and definition.

Student engagement includes cognitive, behavioural and emotional elements (Appleton, Christenson & Furlong, 2008, p. 377). "Children who are engaged show sustained behavioural involvement in learning activities accompanied by positive emotional tone" (Skinner & Belmont, 1993, p. 572). Exactly how one goes about eliciting this state in students, however, is a question which has no clear answer. Learning styles and teaching methods have provided approaches in this field. Hattie's focus on direct instruction, for instance, points the way through teacher-developed learning, instruction, and assessment approaches matched to student learning needs. As Hattie (2003) notes, "the major influence on student learning is the teacher" (p. 14), as he or she supports students in the construction of knowledge. Unfortunately, in regards to technology-focused instruction the suggestions have, to this point, tended to be broad and indistinct. Malone (1981) for

instance, cites three key factors for internal motivation. These are challenge, fantasy, and curiosity (p. 335).

In the decades following the initial research into computer integration, the field of information technology has undergone a massive upheaval, changing the way we think about education. The exponential growth in technology has impacted all levels of society, but none perhaps as strongly as education. When one considers the differences between the world of a generation ago and the world of today, one can only guess as to the changes we will see in yet another generation. It begs the question of how one can adequately prepare students for this ever-changing world, and which skills are most important for their success.

With this change, Malone's concepts have been broadened and refined to include such items as higher-order thinking, depth of knowledge, connectedness to the world, substantive conversation, and social support (Newmann & Wehlage, 1993). Most recently, student engagement in the modern educational system has come under the umbrella of twenty-first century learning. According to Delors (1998) the focus of school needs to be to "impart both the desire for, and pleasure in, learning, the ability to learn how to learn, and intellectual curiosity" (p. 21). Given this statement, the challenge of integrating "twenty-first century learning" practises in order to improve student engagement is more important than ever. How this might occur then becomes the next logical question.

Implications

In the book *Mind in the Making,* Galinsky (2010) separates out the essential skills for twenty-first century learners. These seven life skills are founded in an investigation into best practises for education, in particular in how they relate to student engagement. According to Galinsky (2010), these are: focus and self control (p. 12), perspective taking

(p. 67), communicating (p. 102), making connections (p. 157), critical thinking (p. 200), taking on challenges (p. 248) and self-directed, engaged learning (p. 298). Each of these aptitudes is focused on helping school aged children to survive and thrive within today's technology-saturated and multi-media world, and they, in turn, link back to instructional methods. As Galinsky describes, there isn't one right way for twenty-first century instruction to occur. "Direct teaching needs to engage and motivate children to discovery... Likewise, discovery without explanation can leave children floundering or drawing incorrect conclusions" (p. 333). In Galinsky's model, twenty-first learning must take into consideration a myriad of factors, including the challenges of modern society and the way that these factors relate to student learning.

One of the considerations for twenty-first century learning to occur is the integration of multimedia instruction into the modern classroom. There is significant research which supports the integration of various forms of technology. Many authors such as Aufderheide (1993), Domine (2009), Friesen and Jardine (2009), Kubey (2004), Livingstone (2004), Oppenheimer (2004), and Potter (2004) have argued for the growing importance of "digital fluency" (Resnick, 2001b, p. 33) to students, thus "preparing students to be literate in the 21st Century" (Henderson & Honan, 2008, p. 95). This concept is expanded upon by Scardamalia and Bereiter (2003) who suggest that the innovative ability to work with ideas is integral to the education of students in an increasingly technology-focused world.

Every bit as significant for twenty-first century learning by students is the correlated practises and instructional methods followed by their teachers. Goos and Bennison (2008) and Brown (2003) support the integration of new technologies in the

classroom. A controversial theme which appears in much of the literature is Prensky's (2005) argument that an "old-style teacher" (p. 64) will lose the ability to engage his or her students in today's technology-rich world. Though this particular statement has inflammatory undertones, the questions of relevant teaching practises, student learning styles and twenty-first century learning which appear in the other research, is enough to warrant further study of the progression of technology-instruction in our classrooms. Bastick's (2002) research into optimizing teaching quality via students' evaluations suggests that teachers can and should alter teaching practises to best fit student needs (p. 2). This is reiterated by Church, Elliot & Gable (2001) whose research into classroom environment, and its relation to achievement by students, demonstrates the interconnectedness between the various elements of classroom environment. Overwhelmingly, the theme which appears is that twenty-first century students must be motivated to be lifelong learners in order for them to be successful in tomorrow's world, (Galinsky, 2010; McQuarrie & McRae, 2010; Prensky, 2001, 2002, 2005, 2006, 2009; Cramer, 2007; Hidi & Harackiewicz, 2000; and Delors, 1998). This requires educators to instruct in ways which facilitate engagement, as evidenced by Hoyle (2009), Maclean (2007), Smith, Sheppard, Johnson & Johnson (2005).

There are many methods of instruction stretching from purely exploratory, project-oriented forms of instruction, through the combined instruction of positivism to the clearly-delineated, teacher-directed, critical and structural approaches to instruction (Howe, 1987). Though there is certainly a spectrum of possibilities, technology instruction tends to fall into one of two categories. Some educators opt for a teacher-directed model. This is the traditional schooling of software skills prevalent in many courses on technology which

focuses solely on the technical issues in a skills-based approach. This approach, discussed by Battistini (1995) has the benefit of providing educators with a clear measure of student success through the successful completion of defined objectives. "One can identify when short-term goals have been met. Such successes of student-teacher cooperation and achievement have greatly enhanced the effectiveness of many using these objectives" (p. 5). Research by Kennewell and Beauchamp (2003), exploring the effectiveness of technology-rich classroom environments on teacher pedagogy and student learning, demonstrated that teacher-directed learning in their study impacted student learning. The obvious benefit was that with clearly-defined outcomes, "lesson planning was more fine-grained and activities thought through in more detail," however they later go on to note that in regards to varied teaching methods, the "range of strategies was perhaps more restricted than in the traditional classroom, however, as a result of... the perceived need to use ICT rather than other ways of stimulating interest and representing ideas" (p. 5). Resnick (2001b) suggests this occurs because of a focus on transmitting information, rather than instruction through exploration. "When people are introduced to computers today, they are typically taught how to look up information... but they don't become *fluent* with the technology" (p.13). Preparation for a teacher-directed instructional method means creating tutorials for students to follow in order to learn the software program where assessment is a checklist of correct achievable outcomes without regard for original content or student-centered projects. The benefit of this approach, noted by Brady (1999), is that there is a clear accountability framework by which to measure whether teachers are implementing state (provincial) outcomes, and if students are reaching these goals.

Quite a different option is to follow a student-centered instructional approach where student learning is facilitated through improved student engagement and twenty-first century learning. This notion of adapting our educational practises to 'suit' today's learner in order to keep them engaged involves "participation and identification aspects of engagement [in which students identify themselves as part of a group] and these affective or psychological aspects of engagement seem mutually reinforcing and synergistic in improving student educational outcomes," (Appleton et al. 2008, p. 377). This line of research promotes the concept that learning via "fun", or "game-play" as Prensky (2001) explains, assists in the deeper levels of understanding and is a viable option with many benefits. According to Prensky (2001), the use of "fun" learning approaches are a better option than many traditional approaches whose out-dated "ideas are learning shackles that certainly have no relevance for today's learners that we, as trainers and educators should all throw away" (para. 17). In many ways, this concept matches that of Arts-based instruction, and although many educators view the field of technology as separate from the world of Art, research into student engagement and twenty-first century learning approaches to teaching would suggest otherwise. As Robinson (2001) argues "all organizations, including educational ones, can... recover people's creative abilities" (p. 4). She argues that in order for this to happen radical changes to the cultures educational and corporate must occur.

Given that both ends of the spectrum to instruction claim to provide the best possible opportunities for a student's education, one must consider the various approaches in relation to student engagement and twenty-first century learning. All approaches, from outcome-based instruction to open-ended student-centered project-based learning have at their heart, the same, fundamental objectives to cover. Each one does provide instruction to

students that fulfil these objectives. Each provides students with a mastery of the curricular expectations. In these ways, the instructional methods are connected, but fundamentally different in the approaches. The question becomes: are there specific methods which best prepare students for the world in which they will eventually apply these skills? As Galinsky (2010) argues, preparing our children for the twenty-first century doesn't "call for expensive programs, fancy materials, or elaborate equipment... [rather] doing the everyday things... in new ways" (p. 352).

Description of the Issue

Twenty-first century learning and its relationship to student engagement are both key factors in preparing students for the world of the future. Sinclair, Christenson, Lehr and Reschly (2003) note that engagement isn't a specific attribute of the child, but "rather a state of being that is highly influenced by contextual factors, such as policies and practises of the school and family or peer interactions" (p. 31). Research by Appleton et al. (2008) suggests that "participating in school-work positively impacts students' affective connections with school" (p. 377) and positively increases student engagement. Within the context of this study, however, the focus of inquiry was on the students' self-perceived levels of engagement and twenty-first century teaching practises within their own classroom.

No matter where in the spectrum of educational models (Howe, 1987) a classroom teacher's educational approach falls, the ultimate goal of education is to facilitate students who are capable of lifelong learning, and who can navigate the world of work once they leave the educational system. "Knowing how to learn, being inspired to continue learning and learning together are essential in today's world, as are the ability to build on other's

ideas, collaborate to solve problems, address issues, and pose new problems or questions" (Friesen & Jardine, 2009, p. 35). Further to this, facilitating life-long learners "emerges as one of the keys to the twenty-first century. It goes beyond the traditional distinction between initial and continuing education. It meets the challenges posed by a rapidly changing world" (Delors, 1998, p. 22). While all classrooms are a blend of instructional methods, varying from direct instruction all the way to completely independent inquiry, teachers may feel more comfortable teaching in one particular part of the instructional spectrum. No matter what educational method a teacher personally espouses, the fact remains, that the classrooms within which these students are educated will have an impact on the way they embrace the challenges with which they are faced.

By this logic, a student's perception of the classroom environment in which he or she learns, and the level of engagement in classroom tasks would be related to the approach taken by their teachers (Trickett & Moos, 2002, p. 17). "Most instructors tend to think that others see the world the way they do," (Finelli, Klinger & Budny, 2001, p. 494) and that, in turn, influences their approach to instruction and classroom management. Formative assessment through praise, or lack thereof, is yet another facet that defines a student's perception of the classroom (Burnett, 2002; Henderlong & Lepper, 2002) and the level of student engagement they have (Henderlong & Lepper, 2002). This is further supported by Assor, Kaplan, Kanat-Maymon & Roth (2005) whose study into student engagement in the classroom demonstrated that particular behaviours by teachers, triggering anger and anxiety in their students, had an undermining effect on student engagement. Beyond this, the actual learning itself, as created by the classroom teacher, through their teaching methods, language, approaches, all affect the students' perceptions to learning. "Safe spaces" that

allow exploration and innovation are key to students being able to take risks when learning (Holley and Steiner, 2005). This is particularly important with so-called "Millennial" students, born after 1982 (Cramer, 2007). This generation is "discontent with the amount of technology use found in schools" (p 129); they crave the opportunities to learn with technology, rather than from technology. This notion is expanded upon by Reeves (1998b) who notes that learning 'with' technology focuses on "cognitive tools and constructivist learning environments" (p. 1) rather on the tool as the end to the means. Given this background of student desires for twenty-first century methods of instruction, this study investigated student perceptions of their engagement through a classroom engagement questionnaire and subsequent interviews, during a student-centered instructional approach to video creation.

There are many approaches to classroom instruction, and the spectrum of teaching methods which support these have ebbed and flowed over the last centuries. In current literature, the focus tends to be on the need to prepare our students for the world of tomorrow, and from this notion, the concept of twenty-first century learning has emerged. This approach interprets the focus of education as "planning for the future and building strategies that will solidify the success of our students, not only in school and work, but in life," (Partnership for 21st Century Skills, 2009a, p. 3), but given the nascent understanding of just what twenty-first century learning actually is, "the primary lack is... a shortage of bold, coherent, inspiring yet realistic visions of what Education could be like ten and twenty years from now," (Papert & Cavallo, 2001, p. 1). The following summary provides a summary of the theoretical underpinnings of this approach.

Theoretical Foundations

One of the primary foci of twenty-first century instruction is the concept of student engagement in their own learning and interactivity with curriculum. Appleton et al. (2008) note the importance of student engagement in their achievements beyond school, a concept key to the idea of twenty-first century learning as it provides the momentum to continue learning beyond the confines of school. Further to this, writings by Delors (1998), Prensky (2001, 2002, 2005, 2006, 2009), Cramer (2007), Robison (2001), Hoyle (2009), Quellmalz & Kozma (2003), and Papert & Cavallo (2001) provide evidence to support the need to alter the way that we teach these students in order to prepare them to become lifelong learners. At heart, the concept of encouraging student engagement through exploration (Shernoff, Csikszentmihalyi, Schneider, Steele Shernoff, 2003) is the key to further inquiry into twenty-first century instruction.

This basis of an exploratory method which encourages students to develop their own projects, via exploration with the media, is founded in constructivism, though it goes far beyond the theoretical structures of this method. According to Shernoff et al. (2003), Csikszentmihalyi (1990, 1996) and others, the environment in which students learn, impacts their ability to work in innovative, creative ways. Gonen, Kocakaya & Inan, (2006), Duffy and Cunningham (1996), Ames and Archer (1988), and Miller (2002) all emphasize the positive educational outcomes of exploratory educational approaches in the classroom, in order to enhance student engagement. Though the ultimate goal of any classroom is student completion of specified learner outcomes as defined by the curriculum, the way this can be achieved differs with the pedagogical views of the

instructor. Finding the best practises for twenty-first century learning, in order to maintain the highest levels of student engagement, thus becomes the challenge.

In a twenty-first century instructional setting, the students have the freedom to work on student-developed projects in order to develop their own metacognitive understanding of the concepts being taught. As Shernoff et al. (2003) note, this is not to suggest that the student-centered learning endeavours are easy or simply fun. In fact, their study demonstrates that "activities that are academically intense and foster positive emotions stand the best chance of engaging students" (p. 173). Nonetheless, it is vital that students have freedom to explore the curriculum in engaging ways. Hattie's (2003, 2009) 'direct instruction' approach and outcome-focused assessment echoes this notion of balancing students' varied abilities with matching cognitive challenge.

Having cognitive freedom, which supports the development of media literacy, is imperative for students to learn to filter messages and construct meaning from those messages (Potter, 2004). This does not mean, however, that a constructivist classroom lacks objectives; in fact it is quite the opposite. In this study, for instance, the classroom involved used a rubric of objectives, based on the provincially mandated curriculum, for marking the finished project. It was the method of instruction, not the government-mandated outcomes themselves that were unique. By engaging students in the creation of media texts, and by providing a twenty-first century learning experience with student-centered instruction, the classroom not only covered the curricular outcomes, but provided students with the seven life skills imperative for the learners of today (Galinsky, 2010).

Definition of Concepts

For the purpose of this study, the following definitions have been used to define and identify the main points of interest:

Student engagement is described as a combination of "*behavioural* [attributes] (e.g. positive conduct, effort, participation) and an *emotional* or *affective* [attributes] (e.g., interest, identification, belonging, positive attitude about learning)" along with "*cognitive* [attributes] (e.g., self-regulation, learning goals, investment in learning)" (Appleton et al., 2008, p.370). Within the confines of the classroom, this included "the attention, interest, investment and effort students expend in the work of learning" (Marks, 2000, p. 155).

Student-centered instruction is a "broad teaching approach that includes substituting active learning for lectures, holding students responsible for their learning, and using self-paced and/or cooperative (team-based) learning" (Felder and Brent, 1996, p. 43).

Teacher-directed forms of instruction are where "the burden of communicating course material resides primarily with the instructor" (Felder and Brent, 1996, p. 43).

Twenty-first century learning is "learning throughout life," wherein education "meets the challenges posed by a rapidly changing world" (Delors, 1998, p. 22).

Classroom Climate is defined as a situation which "involves relationships between teachers and students or among students" (Arter, 1987, p. 7).

Learner Outcomes are "what we expect students to learn; the provincially mandated knowledge, skills, and attitudes we expect students to demonstrate as a result of schooling" (Alberta Assessment Consortium, 2008, para. 12).

Media Literacy is "the movement to expand notions of literacy to include the powerful post-print media that dominate our informational landscape, helps people

understand, produce and negotiate meanings in a culture made up of powerful images, words, and sounds" (Aufderheide, 1993, p. 2).

Statement of the Research Questions

The research questions of this study were as follows:

First, would students learning in a classroom where the video creation unit was taught through student-centered instruction, perceive the classroom climate as engaging? The second question of this study was whether or not students taught within a classroom where the twenty-first century learning approach was embedded in the instruction of video creation, would perceive their own engagement in the classroom task of video-creation in a positive manner as measured by an interview at the end of the course. Important subsidiary questions included: What was the nature of student engagement? Under what circumstances did it occur and why? Were there any differences between males and females, and high and low achieving students?

Summary

In today's rapidly changing world, twenty-first century skills are a requirement, rather than an option for students. As Friedman (2005) states "we are now connecting all the knowledge centers on the planet together into a single global network... could usher in an amazing era of prosperity and innovation" (p. 8) but in order to do that, our students need to be prepared to participate on a newly levelled playing field. One of the skills necessary to participate in this new world is the ability to understand and create in a multimedia environment, and given this, media literacy is one of the most important skills for today's students to master.

Far beyond simple literacy of a generation past, the world of today (and tomorrow) demands media literacy which encompasses all aspects of electronic, visual, and textual media. For this to occur, students must be exposed to ways in which they learn to not only be consumers of media, but also critics and questioners. "As educators, we have the opportunity and the responsibility to use media literacy as one of our key strategies for helping students develop critical thinking skills" (Jacobs, 2010, p. 136). This "deconstruction" of media texts (Gutek, 2008, Potter, 2004, Resnick 2001a) and the subsequent "creation" of new media texts by students themselves (Aufderheide, 1993, Breivik, 2005, Domine 2009) are both key to the development of 'critical consumerism'. As Breivik (2005) states "It is time for both technology and information-literacy skills to be accepted as a core competency to be acquired systematically through all levels of formal learning" (p. 25). Twenty-first century learning requires students to work with media in student-centered, innovative ways in order to learn to analyse and understand the fundamental significance and impact of the media texts. This process must be facilitated through classroom instruction that promotes student engagement.

This type of engagement in students' own learning requires students to demonstrate a level of innovative thinking (through the creation of original, student-centered projects) which isn't necessarily the norm in many technology courses which often provide simplified teacher-directed instruction. Research by Appleton et al. (2008), Malone (1981), Carini, Kuh & Klein (2006), and Shernoff et al. (2003), suggests that students' level of engagement is impacted by various factors, from their home life to their school classroom and environment. This study proposed to measure the effects, if any, a student-centered approach to video creation had on student perceptions of classroom climate and

engagement. By looking at the ways that twenty-first century instructional practises and

student engagement are related, a snapshot of one particular classroom, and the method of

instruction used therein was created.

Chapter Two: Literature Review

Overview

This chapter provides a conceptual framework for the study, along with a synopsis of the theoretical foundations. It summarizes the existing research base regarding twenty-first century learning and student engagement on which this study is built. The concept of a student-centered instructional approach to video creation is analyzed in terms of general theorems of educational research and studies into technology integration in the classroom. The chapter provides the rationale for the research questions, as well as the conceptual and theoretical underpinnings of the study.

Conceptual Framework

Twenty-first Century Learning in Practise. The theoretical underpinnings of twenty-first century learning are founded in constructivism, an educational methodology which goes back more than a century to John Dewey's (1897) Pedagogic Creed which emphasises the importance of "stimulat[ing] the child's powers" (para. 2). Dewey saw school as "a process of living and not a preparation for future living" (para. 8) and believed in introducing concepts and ideas "not as so much new subject-matter, but as showing the factors already involved in previous experience and as furnishing tools by which that experience can be more easily and effectively regulated" (para. 37). In the last century, though the terms have changed, the foundational basis of Dewey's educational theory has not. The same concepts can be found in Miller's (2002) writing which defines constructivism as "a philosophy that supports student construction of knowledge" (p. 1). Duffy and Cunningham (1996) expand on this notion when they state that in a constructivist classroom, learning "is an active process of constructing rather than

acquiring knowledge, and ...instruction is a process of supporting that construction" (p. 171). The same concept is described by Friesen & Jacobsen (2011) who state:

> Schools should be less and less about crafting a single message for individuals to consume, and more and more about convening groups of learners with diverse strengths, expertise, and skills around shared interests, to work on common goals, to create ideas, and to build and cultivate community knowledge. (para. 8)

This theory of "constructing" student understanding through metacognitive processes is echoed in the popular educational methods book *Beyond Monet: The Artful Science of Instructional Integration*, by Bennet and Rolheiser (2001) which expands on the notion of student awareness of their own learning. Even online education has been subject to research regarding the impact of constructivism on instructional effectiveness. Participatory action research by Gazi (2009), demonstrated that "in a collaborative, constructivist learning environment, students have the chance to develop higher order thinking, reflection, communication, research, teamwork skills through managing their own learning within a learning community" (p. 76). At their heart, each of these researchers and writers follows the same philosophical belief system: Since students construct their own knowledge, then instructional strategies that support constructivist approaches are a positive method to developing student understanding. This same structure underscores the basic tenets of twenty-first century learning.

The relevance of twenty-first century learning education in today's rapidly changing field of educational technology has been the subject of a growing number of books and studies in the last years. Delors (1998) sets the tone for this with his summary report on the commission on education for the twenty-first century, but since then,

numerous others have stepped forward to investigate this growing field. Prensky (2009), Cramer (2007), Robinson (2001), Hoyle (2009), Quellmalz & Kozma (2003), Maclean (2007), and Papert & Cavallo (2001) have, in the last ten years, begun investigating the unique set of characteristics that delineate twenty-first century learning. Reeves (1998b) notes that "learning 'with' technology [is] less widespread than the 'from' approach [and] is referred to in terms such as cognitive tools" (p. 1). Though the research into twenty-first century learning is still in its infancy, the constructivist underpinnings to this approach are well established. Battistini (1995), Duffy and Cunningham (1996), Felder and Brent (1996), Gazi (2009), Gonen, Kocakaya and Inan (2006), Isman (2011), Motschnig-Pitrig and Holzinger (2002) demonstrate the importance of metacognition and constructivist educational approaches to higher levels of learning, and education in general. "The work students undertake also needs to be relevant, meaningful and authentic in other words, it needs to be worthy of their time and attention" (Willms, Friesen & Milton, 2009, p. 34). In challenging ourselves to facilitate students reaching a state of critical media literacy, we must embrace a teaching pedagogy which critically assesses, contextually analyzes and denotes new meaning to accepted educational truths.

The question of whether or not "the curriculum should feature experiences in which teachers and students unpack, deconstruct, and resist the transmission of approved information and knowledge" (Gutek, 2008, p. 153), however, is a tricky one. Bastick (2002) encourages the use of in-course student evaluations to hone teaching methods to provide for better learning environments while Phillips (1995) warns of "the tendency within many forms of constructivist epistemology... towards relativism, or towards treating the justification of our knowledge as being entirely a matter of socio-political processes or

consensus" (1995, p. 11). The challenge is heightened by the perception of technology as inflexible. Research by Taylor, Dawson & Fraser (1995) analyzes the challenges of instituting innovative approaches to subjects which are traditionally taught in an approach that espouses "cold reason" and "hard control" (p. 2). Taylor & Maor (2000) expand on this knowledge base when they investigate the challenges of integrating a constructivist approach into online learning environments. In the technology classroom, it leaves the educator in the situation of needing to transmit large amounts of data (which are ever-changing) while at the same time, attempting to encourage a critical analysis of the media by students.

This brings to the forefront the question of where in the spectrum of teaching approaches, one's instruction falls. In the traditional, teacher-directed forms of schooling, "the burden of communicating course material resides primarily with the instructor" (Felder and Brent, 1996, p. 43). The teacher is the purveyor of information and the guide who assists students in developing an understanding of the curriculum. In this format, the teacher leads students through the process of creating knowledge for themselves; providing exemplars and sharing their expertise. The question, however, is how this might mesh with a technology-enhanced classroom where the students are often the 'experts' or, as Prensky (2006) describes them, "digital natives" (p. 1). Wehrli (2009) points out that "emergent technologies are not just tools... [they] are changing us, our culture, and our schools" (p. 3). Given that, we must consider how to adapt our teaching methods to best implement them in the classroom.

Palak and Walls (2009) research found that "using technology to support student collaboration, project-based learning and problem solving is rare even among teachers who

hold student-centered beliefs" (p. 437). Ironic as it may sound, the educational

transformation is still in its nascent stages as we move toward a student-centered form of

instructing technology. Palak and Walls (2009) found that most teachers still employed

traditional approaches to instruction despite the non-traditional subject matter. Research by

Sandholtz and Reilly (2004) supports these findings and provides an even more paradoxical

view of this phenomenon. They propose that by focusing professional development on

creating technical expertise that teachers are inadvertently deterred from exploratory use of

technology. Instead, they propose that the focus should start with "developing curriculum,

evaluating learning materials, and thinking about how to provide better learning

opportunities for their students" (p. 507). By starting with a sound of pedagogical basis

when teaching technology, the educational choices will be more in line with student-

centered instruction and twenty-first century learning. The development of technical

expertise that occurs after that point (rather than before) is then structured on a solid

foundation of curriculum and instructional choices.

This concept of sound pedagogy easily extends to the theories behind twenty-first

century learning and student engagement. The changes are often radical and completely at

odds with the traditional classroom. "In the 21st century, learning environments should be

seen as the support systems that organize the condition in which humans learn best,"

(Partnership for 21st Century Learning, 2009, p.3). Similar to this statement, research by

Bleed (2006) provides evidence that a unique classroom structure that includes "replacing

some of the fixed seat-time with technology-delivered content and having physical spaces

for socialization lead to improved learning, higher completion rates by students... and

greater convenience for students" (p. 34). In this scenario, the student becomes central to

their own learning. One consideration, however, is that "the logistical problems associated with implementing [student-centered learning environments] is formidable" (Hannafin and Land, 1997, p. 168) as they require students to have developed an ability to work independently for extended periods of time. In fact, as Hannafin and Land (1997) point out, the student-centered learning approaches may not be the right choice in all situations, but they should be considered as "viable alternatives to direct instruction methods" (p. 197).

Perkins' (1991) research into constructivism within the technology classroom emphasizes that student-centered learning combined with technology can produce a synergy of student understanding, through exploration. The use of "information processing technologies and the constructivist point of view fashion an image of education much more attentive to understanding and the active use of knowledge and skills" (p. 22) rather than simple transmission of information by the teacher to students. As Clifford, Friesen & Lock (2004) note:

> Even students who have extremely high levels of technology fluency are not generally well equipped to think about the pedagogical uses of technology by virtue of that fluency. They must *learn* to teach with technology, and helping them to do that in deep, powerful and socially responsible ways must become the business of every teacher educator, not just those who by speciality, or by default, have conventionally been given this responsibility. (p.162)

The role of technology in classroom practise is particularly important when considering student engagement as the technology itself provides elements of feedback to students. Students are able to assess the success or perceived failures of their project attempts via the interface. They are also provided with a near-constant stream of feedback

information through pop ups, warnings, and the use of help features and tutorials. Through interactive measures such as discussion forums and chat features, students receive constructive criticism and support from peers, while errors and software 'glitches' can have an inverse effect, deterring enthusiasm. In this way, the teaching practice and the learning environment provide both positive and negative feedback which affects student engagement (Willms et al., 2009). Given this, the fluency the student has with technology becomes particularly relevant to student experience.

Digital fluency, however, is not the same as media literacy. Potter (2004) compares the process of creating media literate students to that of developing language skills. He suggests that, like reading, media literacy is not an either or scenario: Students must be able to both match the meaning of existing media texts as well as construct new meaning of their own. In regards to the instruction of media literacy, Potter states that both understanding and constructing skills are "required for processing information from any type of media message" (p. 251).

This critical form of literacy connects to the Postmodernist goals of self-awareness through the conscious deconstruction of the world and its common conventions. Educators need to encourage students to question the inherent values and expectations for cultural constructs: What is the accepted mode of behaviour in our society? Why is this particular action acceptable? How do we interact with the world around us; as a person, as a participant, and as a member of any number of societal systems? What is the basis of false consciousness, and how can we step out of these unconscious behavioural shackles? Queries such as these should found the basis of twenty-first century learning, as it is through the process of de-structuring culturally-accepted behaviour, episteme and

ethnographic ideology that we create a conscious, free foundation to support the growth of students' real knowledge.

The process of creation involves not only making things such as artwork, music, or projects, but also of crafting new ideas, philosophies, and concepts. This process, in fact, is what truly engenders twenty-first century learning: becoming consciously and critically aware of the world around us. As R. Stavenhagen cited in Delors (1998) writes, educators for today's students must encourage "mutual respect for the culture of the others, based on the recognition of the collective human rights of all peoples around the world, great or small, each as deserving as every other" (p. 233). The critical awareness required for this to occur must become part of the educational structures of our classroom. In order for students to "engage in this type of authentic instruction and assessment, they must learn how to locate, organize, evaluate, and think critically about information. This combines digital-age literacy and inventive thinking" (Cramer, 2007, p. 128). This theory is supported by Resnick (2001a) when he states, "learning is an active process in which people construct new understandings of the world around them through active exploration, experimentation, discussion and reflection. In short: people don't get ideas; they make them" (p. 33). Within the realm of technology instruction, we must assist students to generate their own understandings of media, rather than just providing examples of our own beliefs for them to follow.

Media Literacy in the Classroom. The fundamental purpose of schooling has always been to prepare students for the world beyond the classroom. "As the world changes, the expectations placed upon education shift to meet these changes" (Friesen & Jardine, 2009, p. 4), and the modern education system is facing exactly that challenge. In

today's society, the need to meet the changes of the world has a profoundly different meaning than it did in generations past. "Twenty-first century learning" (Delors, 1998, p. 22) and the need to prepare students to embrace the changing world of tomorrow is more pressing than ever, as the world is in a state of technological flux, and societal change. To adequately prepare our students we must acknowledge this change, while at the same time encouraging and modelling critical behaviours of awareness with them. By doing so, our students will learn how to explore the conditions that have led to this current vision of reality. Within the confines of this particular study, the primary factors that have been engaged by the research were: student perceptions of student engagement and twenty-first century teaching practises in regards to a student-centered instructional approach to video creation.

The core of twenty-first century learning is the need to create media literate students. As Breivik (2005) argues, "nowhere is the need for information literacy skills greater than in today's work environment where efforts to 'manage' knowledge are increasingly necessary" (p. 23). Breivik goes on to explain that twenty-first century learning requires students to develop the cognitive and affective processes which allow them to be active, critical participants in the ever-changing world. This form of learning – media literacy – shifts students from solely being receivers to analyzer and producers of media where they not only "acquire current knowledge, but… help shape what their society comes to accept as knowledge" (Friesen & Jacobsen, 2011, para. 22). Media Literacy, for the purpose of this study, is defined as "the movement to expand notions of literacy to include the powerful post-print media that dominate our informational landscape, helps people understand, produce and negotiate meanings in a culture made up of powerful

images, words, and sounds" (Aufderheide, 1993, p. 2). This is particularly relevant to video creation.

Today's students are bombarded by an endless stream of images in the form of commercial advertisements, video blogs, mashups, trailers, and many other forms of video-formatted media. Unless these students have an understanding of the video genre, they will be unable to go beyond the surface of the visual medium to deconstruct and analyze the relationship between design and communication, and the research that goes into understanding the social context of the targeted audience. One way that this can be facilitated is through the creation of these same video-formatted productions which Rahn (2003) describes as "transforming passive consumers into active agents in the production of media" (para. 2). Students develop media literacy through actively interacting with the medium. By doing this, they become conscientious creators, rather than passive consumers, thus reaching the highest levels of the revised taxonomy of learning (Anderson, Krathwohl & Bloom, 2005).

The concept that we can be producers of media is a new phenomenon itself. As Seigel (2008) writes "for the first time in human history, we are all... producers as well as consumers. That is mass culture" (p. 76). The concept of self-expression and commentary is one that has grown in importance with the development of technological awareness and in particular, venues of shared expression such as the internet. "Now anyone has the potential to produce videos. However, this means that a lot of video is made without serious consideration to its unique language" (Rahn, 2003, para. 25). This consideration does not just mean another opportunity for educating students, it demands it.

Livingstone (2004) expands on Siegel's concept of producers versus consumers with an analysis of the growth of the World Wide Web and the abundance of media texts. She contends that in a world where "almost anyone can produce and disseminate Internet contents, with fewer — and different kinds of — filters, the basis of critical literacy must alter" (p. 7). This notion is echoed by the writings of Domine (2009) who draws parallels between activism and media awareness when she states that media literacy "requires students, teachers, and administrators to go beyond a technical skill set toward a disposition of participatory citizenship" (p. 18). For a technology classroom, these efforts require educators to provide students with a learning experience that facilitates this level of active, rather than passive, engagement in students.

To begin, one must consider the research foundations of technology integration in the classroom and the ways in which that technology is taught by educators. The integration of technology into practise is yet another of the key elements to twenty-first century learning environments, in particular in how they relate to student engagement in the classroom. There have been many studies that demonstrate the undeniably positive benefits of integrating technology in current educational practise. Brown (2003), Domitrek and Raby (2008), Domine (2009), Drage (2009), Reeves (1998a, 1998b), Kennewell and Beauchamp (2003), Livingstone (2004), and Ruben (1999) all cite the positive benefits to technology-rich environments on student learning and engagement. Finn and Inman (2004), for instance, demonstrate the positive outcomes of inclusive technology programs which they termed "digital unity" (p. 297). Their study found an increase in positive attitudes toward technology and a decrease in technological gender discrepancies in students who participated. Student experiences are, as a general rule, improved with the inclusion of

technology into existing programs. Reeves (1998b) meta-analysis of large scale studies into technology usage provides a general snapshot of computer integration, stating that they have "positive effects on learning as measured by standardized achievement tests, are more motivating for students, are accepted by more teachers than other technologies and are widely supported by... the public in general" (p. 11). This concept, however, only begins to scratch the surface of why literacy-focused technology integration is so important to today's classrooms.

Another of the key concepts for twenty-first century learners is the ability to work innovatively with ideas (Galinsky, 2010). In the book *Learning for life in the 21ˢᵗ Century,* Wells and Claxon (2002) describe this as "meaningful, collaborative activity" (p. 7) in which "participants contribute differentially from their existing expertise and take over and transform for their own use the skills, values and dispositions that they find effective in the contributions of others" (p. 7). Research into the ability to work with ideas in original and innovative ways (Scardamalia & Bereiter, 2003) and the evolution of "digital fluency" (Resnick, 2001a, p. 33) suggest that students who lack facility with technology will find it increasingly difficult to compete in tomorrow's digital world as "flexible workers" (Drage, 2009, p. 32). We need to empower our students by encouraging an understanding of the medium. Students need to be critical consumers and conscientious creators rather than simply blind consumers of culture. As Domine (2009) points out, a classroom which supports media literacy can "balance students' excessive consumer and social uses of media and technology with democratic practices that require responsible stewardship of local and global communities" (p. 51). The goal of media literacy in the classroom would then be focused on the preparation of students for an increasingly digital, and globalized

world through awareness and activism, rather than simply the mastery of a particular

software program. Within the context of the New Media classroom, students must master

the techniques of video creation in order to demonstrate an understanding of the

conventions of film. By doing so, these students "create a language of personal expression"

(Rahn, 2003, para. 26) which they can then apply in a conscientious manner, rather than

being passive consumers of media.

      Supportive Classroom Climate. Given that media literacy requires students to

become active producers of media themselves, rather than just passive consumers, a core

instructional concept in student engagement is acquiring those skills. One factor which can

significantly affect student engagement in learning is the classroom environment itself

(Ames & Archer, 1988, Fraser, 1986, Klem & Connell, 2004, and Shernoff et al., 2003).

When measuring human environments, Insel and Moos (1974), Fisher, Waldrip & Dorman

(1986) and Fraser (1986) all suggest that there are a variety of elements which combine to

produce the environment's affective climate as perceived by its inhabitants. According to

Insel and Moos (1974), the first of these is organizational structure; the second is the

characteristics of the inhabitants; and thirdly, the psychosocial characteristics and

organizational climate. Shernoff et al. (2003) frame this connection of student engagement

to creative potential and freedom within the classroom (p. 159). This combination of

factors in a classroom is what creates the students' perceptions of the learning environment

and, in an ideal classroom environment, are what Holley and Steiner (2005) define as a

"safe space". This doesn't specifically have to do with the physical environment, but

"instead, classroom safe space refers to protection from psychological or emotional harm"

(p. 50). These classrooms, in their cohesive approach, provide students with a structure

which assists or detracts from their level of engagement with instruction. As Klem & Connell (2004) note "students who perceive teachers as creating a caring, well-structured learning environment in which expectations are high, clear, and fair are more likely to report engagement in school" (p. 270). It is within this supportive emotional environment that students feel capable of taking risks with their learning.

A student's engagement in classroom activities can be significantly different than a student's general view of the school. As Fraser (1986) states, "despite their simultaneous development and logical linkages, the field of classroom-level and school-level environment have remained remarkably independent" (p. 9). The student view of a classroom would involve such factors as "relationships between teachers and their students or among students, [while] school climate might involve a teacher's relationship with other teachers, senior staff and the school principal" (Fisher et al., 1986, p. 4). Overall, however, it can be generalized that "cooperation and trust should set the stage for effective student learning" (Hoy, Tarter & Woolfolk Hoy, 2006, p. 9).

An environment which facilitates student engagement is something that does not always occur naturally but which must be fostered through classroom climate, educational approaches and project selection. In this particular study, a student-centered instructional approach to video creation was used. Ames & Archer (1988) demonstrate that classroom goal orientation "is determined by what is actually happening in the classroom, but, more important, it is defined by how the individual student gives meaning to these events and what motivational orientation he or she adopts" (p. 265). Teacher interactions with students, in the form of praise or negative feedback, also have a significant impact on student perceptions of the classroom environment (Burnett, 2002) and on their engagement

in classroom tasks. Marks (2000) notes that a positive environment is "favourable to learning by being normed for respect, fairness, safety, and positive communication. Such an environment enhances the engagement of students at all grade levels," (p. 174). A change to the overall climate of a classroom only occurs after a fundamental change to the way that a classroom is organized, and technology curriculum instructed. Part of this is in regards to classroom set up and ergonomics (Zandvliet and Straker, 2001), though the more important aspects of this involves the instructional approaches. In this vein, Henderson and Honan (2008) emphasize that teachers must "move past taken-for granted assumptions and to address the challenge of preparing students to be literate in the 21st Century" (p. 95). Media literacy is a pressing example of the need for this void to be filled in student experiences with online culture and multi-media forums.

Each of these elements form the overall structure of the twenty-first century learning environment, which is a crucial factor to the engagement levels of twenty-first century learners. This goes far beyond the based-model concept of computer-access for students, which Reeves (1998b) describes as "learning from media and technology" (p. 1) to a complete restructuring of the classroom spaces themselves, to what Reeves (1998b) calls "learning with media and technology." As such, the approach of instruction and the classroom itself must change, which provides a challenge to the educator:

> Helping people to change their mental models of computers as something that students learn "from" to something they learn "with" remains a great challenge. This probably has a great deal to do with the constructivist pedagogy that ideally guides the adaptation of cognitive tools in schools. Many teachers are

uncomfortable with moving from a teacher-centered to student-centered classroom environment. (Reeves. 1998b, p. 31)

Current research by Domine (2009) and others demonstrates that "new learning spaces" (Johnson, 2009, p. 71) such as online environments, blogs, and messaging and the expertise that they require have significantly altered the way youth encounter and interact with one another and the world. As Prensky (2009) suggests, we must alter our belief that "the unenhanced mind and unaided thinking are somehow superior to the enhanced mind" (para. 34). If we don't adapt our schools to accommodate this reality, "we will be left in the 21st century with school buildings to administer—but with students who are physically or mentally somewhere else" (Prensky, 2005, p. 13).

The argument then becomes the creation of a space, both online and physical, which supports student engagement in their own learning processes. Given that "it is easier to enhance creativity by changing conditions in the environment than by trying to make people think more creatively" (Csikszentmihalyi, 1996, p. 1), it is particularly salient to develop an atmosphere that supports the student-centered learning and creation process. Online environments, open-concept classrooms, integrated learning communities, and the expertise that they require have significantly altered the way youth encounter and interact with one another and the world. The danger is to assume that all new learning spaces are inherently dangerous, and to make blanket rules that negate the use of them, rather than making educated decisions based on the specifics of each (Domitrek & Raby, 2008, p. 11). To do so is to lose touch with the technical leaders of tomorrow; to negate "the social, cultural, and cognitively rich experiences that these youth participate in [which] are largely taking place outside schools" (Geyer, 2009, p. 17): online and connected.

All of this literature emphasizes the importance of creating a classroom climate to facilitate student exploration with and through technology. Student engagement can be enhanced through the use of twenty-first century instructional practises and through the development of positive classroom climate. Beyond this, the importance of assisting students to develop the twenty-first century skills that will assist them as life-long learners comes into play (Galinsky, 2010). Once this supportive educational environment is in place, students may begin to learn and explore; putting their media literacy to work as they deconstruct existing media texts and create their own. It's at this point, that the pedagogical practise of the educator becomes forefront to the process of innovation and twenty-first century learning going on within the classroom.

Fostering Student Engagement through Student-Centeredness. One of the key reasons to encourage this critical awareness is to assist students in creating their own conceptual understandings so that, as Potter (2004) asserts, they might create their own meaning. This is also key to encouraging student engagement. Research by Shernoff et al. (2003) demonstrates that:

> Activities that are academically intense and foster positive emotions stand the best chance of engaging students. Ideally, teachers may develop activities that are experienced as challenging and relevant, yet also allow students to feel in control of their learning environment and confident in their ability. (Shernoff et al., 2003, p. 173)

For today's students, twenty-first century instruction and student engagement are closely connected. Cramer (2007) notes that given the particular traits of today's Millennial students, then twenty-first century instruction must challenge their skills and abilities.

Doing so means that our students will begin "exploring complex issues from multiple perspectives, accessing resources when they need them, and collaboratively developing and presenting solutions to the issue at hand" (p. 129).

If students are encouraged to question and explore the conditions under which educationally-accepted theories arose, then they are better equipped to deal with the power-struggle inherent in this system. By doing so, students are able to deconstruct existing canon, avoiding spoken and unspoken societal value judgments that imbue every part of our educational system and society as a whole. This requires, however, an environment where students are encouraged to do this. Research by Young (2005) identifies three elements which have a significant effect on student motivation. These are instructional design (planning), metacognition (self-awareness of the learning process) and choice as defined by "perceived autonomy, perceived competence, and/or task mastery goal orientation" (Young, 2005, p. 37). This is supported by other research which demonstrates how the classroom environment is interconnected. The classroom itself influences achievement goals, while at the same time, those same goals have an effect on students' success and internal motivation (Church, Elliot & Gable, 2001, p. 53). Each of these factors is present within a twenty-first century approach to instruction and student engagement.

By encouraging critical analysis of the issues, and a resistance to simply accepting the dominant code of behaviour with our students, we have empowered them in a way that helps them avoid domination under culturally-dominant norms. They are capable of critical forms of inquiry and media literacy. Students are then able to construct their own meanings through a myriad of experiences, through the lens of media awareness. As Resnick (2001a) proposes, to demonstrate true digital fluency, a student must "be able to articulate a

complex idea or tell an engaging story that is, you must be able to 'make things'" (2001a, para. 3). Resnick's assertion continues with the challenge that "access alone is not enough. The goal must be fluency for everyone" (2001a, para. 11). By doing this, educators have the opportunity to engage students in an educational process which encourages personal experiences from a widely divergent number of groups. Critical consciousness and student freedom are essential for true learning to occur. This meshes with concepts described by Duffy and Cunningham (1996) which assert that by encouraging a student-centric approach, "we do not assume that the learner will 'acquire' the expert's meaning... we seek to understand and challenge the learner's thinking" (p. 173). Since technology has an increasingly significant impact, and broad implications for everyone individuals, groups and entire nations students must be prepared to understand, use and apply information technologies in effective, efficient and ethical ways.

The concept of all of these authors is that we must embrace student-centered approaches to instruction, allowing students to create relevant media texts and, in the process, construct their own meanings about the process of learning. Research by Shernoff et al. (2003) proposes the notion of using "activities that are challenging and relevant" (p. 173) to students' experiences in order to foster student engagement. The concept of involvement also provides a springboard to the writings of Bleed (2006) who notes that "social learning and human interactivity are now scarce resources in the learning process" (p. 36). Student engagement especially through interaction is particularly important then, for today's learners. Smith et al. (2005) reiterate this concern when they write "classroom-based pedagogies of engagement... can help break the traditional lecture-dominant pattern. To maximize student's achievement... instructors should not allow them to remain passive

while they are learning" (p. 97). Given this need, and the overall goals of twenty-first century instruction, we must encourage students to interact and participate in their learning, enhancing student engagement through participation in the process of learning, rather than as a passive process.

Following the concept of *backward design* (Wiggins & McTighe, 1999) where "one starts with the end the desired results (goals or standards) and then develops the curriculum [learning activities] from the evidence of learning (performances) called for by the standard and the teaching needed to equip students to perform" (p. 8), project-oriented instruction with an end result of student engagement through the innovative use of technology should begin with the goals of creating twenty-first century learning experiences in the classroom. In *H. Sapiens Digital: From Digital Immigrants and Digital Natives to Digital Wisdom* Mark Prensky (2009) asserts that "digital wisdom is a twofold concept, referring both to wisdom arising from the use of digital technology to access cognitive power beyond our innate capacity and to wisdom in the prudent use of technology to enhance our capabilities" (p. 2). This is the true challenge of creating relevant learning experiences in the context of twenty-first century learners. This connection and collaboration between students of varying abilities becomes more challenging to coordinate at the high school level, simply based on the increase of class sizes and the streaming of students into academic and non-academic classes (Ercole, 2009, p. 4). It is not enough to simply use technology in the classroom, teachers must endeavour to find ways to use technology to engage students and digitally collaborate in complex ways that enhance understanding and build cognitive awareness. Where traditional schooling once had an expert transmitting knowledge, many fields beyond the school experience, especially those centered on technology, have very

different notions of learning. In fact, the experiences of "teaching and learning outside the classroom are most often social, collaborative, and peer based" (Ruben, 1999, p. 499). It makes sense that this approach would be of benefit to twenty-first century learners inside the classroom. This approach promotes engagement through incorporation of many of the "engagement activities" delineated by Zhao & Kuh (2004):

Engagement activities including:

1. academic effort;

2. higher-order thinking skill required in the courses;

3. academic integration;

4. active and collaborative learning;

5. interaction with faculty members; and

6. diversity-related experiences.

In the case of this particular study, the technology-focused setting and student-centered instructional approach to video creation engaged students in the process of their own learning. Both elements (classroom climate and twenty-first century instructional approach) were vital to providing students with a classroom experience that facilitated this sort of collaborative, and social practise, both of which enhanced student engagement in their own learning.

In contrast to these studies, Scott Waltz (2003) provides a through-the-looking-glass perspective on twenty-first century learning and the relationship between technology, education and society in general. The author challenges the prevalent technological imperative which states that if you can integrate a technology, then you must integrate the technology. Waltz notes early on that, "the semiotics of the technologically new and

improved blend seamlessly with more general futuristic visions" (p. 377). This is reiterated

by Taylor and Maor (2000) who state that "we must be careful to ensure that technological

determinism doesn't overshadow sound educational judgement" (para. 21). Instead, one

must determine the best practice possible, given all choices, including technology. Waltz

(2003), and Taylor and Maor (2000) propose that the focus should be on the overall results.

As the National Survey of Student Engagement (NSSE) has noted "student engagement is

not just a single course in a student's academic career, but rather a pattern of his or her

involvement in a variety of activities" (Smith et al., 2005, p. 87). Since student-centered

instructional approach was one option for teaching video creation, this study proposed to

determine the benefits of using this approach, if any, and the impact it had on student

engagement.

Shernoff et al. (2003) propose that true engagement involves encouraging students

to become deeply involved in the process of their own learning. "Both academic intensity

and a positive emotional response appear to be integral parts of optimal engagement in

classrooms" (p. 172). Waltz (2003) expands on this concept by noting that technology, like

architecture, exists as part of a set of social relations. The freedom element of creation

becomes paramount to its most innovative uses. Technology isn't an entity unto itself, but a

structure that is a response to the existing societal expectations, social history, conventions,

and expectations. The lines between the artefact (technology) and activity (education) are

innately blurred by its social context. In the field of educational technology, Waltz argues

the importance, then, of establishing true best practises and to allow technology to develop

in naturalistic, effective ways. By doing so, these technologies can alter "their social

function even as their material form remains largely the same" (Waltz, 2003, p. 380). For

Waltz this means that the most important technological advances will occur when people interact with new technologies, finding radical new ways to use them; ways that are not part of their original design or conceptualization, but suddenly make a leap from simple artefact to truly effective technology. These second-generation breakthroughs occurring through use of digital technologies are those changes that will truly transform educational technology. At present, we have an awareness of the importance of encouraging student interaction with all forms of media and all areas of study, but "there remains much important work to be done to translate these insights into common practice" (Ruben, 1999, p. 503) especially in regards to computer technology, gaming, interactivity and online social networking (Prensky, 2001, 2002). By interacting with nascent technologies, we can begin to create truly new and innovative uses for them, thus revealing the hidden potential that exists in all. Within the technology classroom, this means allowing students the freedom to explore the many possible options, rather than following a pre-set, teacher-directed practise of instruction.

Engagement and its Connection to Twenty-first Century Learning and Scaffolded Instruction. One facet of the New Media classroom is the online interface. Students who find it difficult to collaborate in a traditional classroom setting may find that communication technology provides opportunities for interaction and engagement that otherwise may not occur. Research by Motschnig-Pitrik and Holzinger (2002) describes how New Media is capable of "support[ing] the coach[ing role] of facilitator in numerous ways being particularly relevant to the Student-Centered approach" (p. 170). This is supported by the writings of Isman (2011) who proposes a four tiered approach to instructional design which includes an analysis of what needs to be taught, a determination

of 'how' this should occur, attempting the instruction and then reviewing the results. Research by Quellmalz & Kozma (2003) goes further by suggesting that twenty-first century instruction must include an "explicit examination of technologies in supporting, extending, and transforming student learning... [in order that] students use technologies to solve significant, complex problems" (p. 391). This also ties into writing by Duffy and Cunningham (1996) which states, "individuals literally construct themselves and their world by accommodating to experiences" (p. 196). This notion, seen from the perspective of twenty-first century learning and engagement, is particularly relevant to a New Media classroom and the challenges of working in a project-based learning environment that focuses on technology.

That is not, however, to say that these things can (or should) occur in a void. Zydney's (2010) research into the scaffolding of technology instruction provides several suggestions regarding technology instruction and project creation for twenty-first century learning. The first is that scaffolding as a method for increasing student understanding within a technology-rich environment is a benefit to students when problem-solving. In the study, there was a statistically significant difference in the understanding of students who had been provided with the technology alone, and the students who had been provided with one or both scaffolding supports. As the research of Fahy, Wu & Hoy. (2010) demonstrates, a teacher's ability directly affects the classroom environment which they create for his/her students and this teacher's "sense of efficacy is consistently and positively related to student achievement" (p. 5). Within a regular classroom, this result underscores the need to recognize technology as a tool, rather than a particular teaching

method. In today's society, where technology is so often touted as the answer to a problem, it is important to differentiate between what technology does and how it is taught.

This connects to the research of Ames and Archer (1988) which demonstrates the fundamental differences between "mastery" goals and "performance" goals. In their study, students in a performance oriented classroom saw failure in terms of their own abilities, rather than as a changeable attribute. "Conversely, perceiving a covariation between effort and success, as students who perceived a mastery-oriented climate did, reflects a more adaptive or success-oriented motivation" (p . 265). The importance of student engagement to their success is well established. Studies by Assor et al. (2005), Astleitner & Wiesner (2004), Beeland (2002) Carini, et al. (2006), Denson & Chang (2008), Eccles & Wigfield (2002) have looked at the many factors interpersonal, technological, and methodological which can affect student engagement in their own learning. Dweck (2006) describes this attitudinal approach of students as a "growth mindset" and notes that it is key to student success in situations where the final outcomes are, as with technology, given to rapid change. A student's ability to adapt is particularly salient to success and completion in this scenario, especially given that "engagement seems to have a 'rich-get-richer' quality, which portends well for effective early intervention for students showing signs of school withdrawal" (Appleton et al., 2008, p. 374). The sooner we are able to draw students into an active participation in their own learning, the greater the benefits will be.

In regards to student engagement, the complex interconnection between the various factors which culminate in student engagement in the process of their own education become even more relevant to instructional approaches. Research by Appleton et al. (2008) also provides evidence that "students at high risk for school failure... can be differentiated

by their amount of participation in and/or identification with the tasks and activities of the school, *and* these differences are related to important outcomes such as academic achievement and persistence with academic work" (p. 374). Given that student engagement is not a simple objective to measure, nor does it simply contend with one factor, a variety of factors must be considered. These include cognitive engagement, behavioural engagement, and emotional engagement. Vygotsky describes the variation in control which takes place during learning activities. According to Vygotsky, this zone of proximal development is that separation which exists between the "actual development as determined by independent problem solving" and the "potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygostky, 1934, translated 1978, p. 86). In this way, the "zone of proximal development defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state" (p.87).

Another implication that can be taken from the research of Zydney (2010), Ames and Archer (1988), Dweck (2006), and Bleed (2006) is the importance of a teacher's guidance within the process of critical thinking and problem-solving: both vital parts of twenty-first century learning. Students do not automatically understand the process of coming to deeper understanding. The process must be modelled and taught in the same ways that core subjects and concepts are taught. Many students lack the skills to simply intuit the correct problem-solving approach. Zydney (2010) proposes that students do not necessarily know how they should go about the process of solving problems; they need, in effect, to be taught that skill, however, Zydney's (2010) organizational guides and higher-order thinking framework emphasize the need for structured instruction in the process of

learning. This is further supported by Cramer (2007) who notes the importance of learning objects and technology in twenty-first century learning environments where "technology can change the nature of your classroom and increase student learning" (p. 131). Research by Church, Elliot & Gable (2001) goes further by defining the connections between achievement goals, student motivation and engagement within the classroom. "Achievement goals serve the role of proximal predictor of achievement outcomes, thereby highlighting the prominent place of the achievement goal construct in models of motivated achievement behaviour" (p. 53). Broadfoot & Black (2004) expand on this notion of assessment and achievement in relation to twenty-first century learning by asking whether "prevailing modes of student assessment tend to reinforce outmoded notions of curriculum content and student learning at the expense of twenty-first century learning skills and dispositions such as creativity and learning to learn" (p. 21). Each of these studies provides yet another piece of the puzzle which frames the overall concept of engagement and twenty-first century learning.

The concept of scaffolding instruction to assist students in the development of problem solving abilities is strikingly similar to research by Spiro, Feltovich, Jacobson, & Coulson (1991) with their work into the *Cognitive Flexibility Theory*. Their research demonstrates that multi-media learning environment is simply the tool, while the organizational guide and the higher-order thinking framework (and the combined approach) are the actual scaffolding methods. This concept ties closely to Fahy et al. (2010) and their focus on a teacher's attitudinal beliefs and the achievement of students in their classroom. Teachers need to provide their students with the freedom to explore, but the teachers themselves must demonstrate a high skill level which will equip them to assist

their student in gaining mastery as they do so. This factor of "Teacher Academic Optimism" explored by Fahy et al. (2010) links a teacher's attitudinal beliefs and the achievement of students in their classroom. Zimmer-Gembeck, Chipuer, Hanish, Creed and McGregor (2006) further this notion with research which demonstrates the positive effects of student engagement and achievement by "supporting teachers, especially those that have longer histories in the school system" (p. 930). The studies demonstrate the importance of scaffolding, rather than assuming students have the ability to use intuition to select the best problem-solving method available.

Since the way that one approaches problem solving has significant impact on the way one develops an understanding of that topic, this study has particular importance for the use of technology in education. As Zydney (2010) notes, "traditional linear models of instruction are particularly ill-suited for complex domains of knowledge" (p. 360). A student's ability to problem-solve will have significant impact on how they process information and the ability to scaffold this process is of particular importance in the field of education. By providing students with technology structures that are supported by scaffolds such as organizational guides and higher-order thinking frameworks, educators can assist in the development of understanding by students during the problem-solving process. In assisting them to make films themselves, rather than passive consumers of the video medium, they are able to take the next step in becoming media literature, critically conscious creators of film. (Rahn, 2003).

The Fine Art Theory. So how do we get there? Today's teachers are faced with two almost insurmountable truths. First, that they will never have enough time to learn read do everything they want to do in their classrooms. Secondly, that despite these constraints,

that these same teachers will be asked to teach more students, larger classes, and far more divergent cognitive levels than ever before. The fact is, today's teachers must adapt to this paradigm by creating learning experiences that fully engage the twenty-first century learner. We must create an engagement for learning which supersedes the most difficult challenges in every classroom. Price Pritchett (1993) writes, "as kids we did not dread the future, even though it was unpredictable, challenging and full of problems we were unprepared for... We need to act like children again create a culture that knows how to learn" (p. 35). Student engagement is the basis for this to occur.

In practice, the technical side of New Media software, hardware, and technical expertise is less important than the problem-solving aspect of a technology programme. While students must, of course, develop a certain degree of proficiency with the programs, the software itself is secondary to the student-centered process of developing vocabulary, analyzing existing visual texts, and creating their own visual texts based on these models. The shifting nature of technology, which is changing at an ever-increasing rate, means that students, no matter what field they eventually find themselves in, need to be learners more that they need to be experts. In today's society, teachers need to prepare students to be flexible, to synthesize new information, to absorb, and change conventions of communication. The International Society for Technology in Education (ISTE, 2009) states in its *Technology Leadership Standards* that teachers need to "promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes" (para. 4). This concept of twenty-first century learning is integral to our current generation of students since these skills "are not merely ends, but means to a greater goal to help children develop the cognitive, academic and

physical competencies they need to succeed in 21st century life," (Partnership for 21st Century Skills, 2009a, p. 2).

The key is to recognize the software programs as a tool rather than as an end: Supporting both twenty-first century learning and student engagement through the use of technology. Resnick (2001b) makes the entreaty, "teachers need to change the way they think about the medium of computers, to start thinking of them like finger paint- tools of expression rather than like television" (p. 33). Real learning occurs when students can enlarge their ideas of what can be created with these tools, and what messages can be best represented in any particular format. It is this digital fluency that will become a highly prized skill in the future. According to Resnick (2001b),

> Digital fluency will become a prerequisite for obtaining jobs, participating meaningfully in society and learning throughout a lifetime… But there is a real risk that only a small handful will be able to use the technologies fluently. In short, the 'access gap' will shrink, but a serious 'fluency gap' could remain. (p. 33)

At all levels the focus of twenty-first century learning involves creating a media literate generation, but it is up to the individual classroom teacher to facilitate the development of higher level thinking required of these students. Project-based learning projects that instil passion, enthusiasm, and engagement in the learner engender success because of the learner's intrinsic involvement in his or her own learning experience. As Carol Dweck (2006) states: "Great teachers believe in the growth of the intellect and talent, and they are fascinated with the process of learning" (p. 194). Students become active participants and creators rather than simply consumers of media. There is, however, still an essential element missing.

According to the ISTE (2009) *Technology Leadership Standards,* teachers must "design, develop, and evaluate learning experiences and assessment incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes" (para. 2). Any change to teaching practise must be, at its heart, bound to the need for student learning and improvement in teaching practise. In the end, the effects must be tangible.

> ICT can transform schools and classrooms by bringing in new curricula based on real-world problems, providing scaffolds and tools to enhance learning... [but for this to occur] new assessments are required that use innovative approaches to capture the new forms of learning associated with ICT use. (Quellmalz & Kozma, 2003, 389 390)

As research demonstrates, the twenty-first century learning experience must go beyond theory in order to provide measurable effects on students' performance. Most importantly, while technology-integration and active learning processes may be current trends, neither one is enough to warrant a change of teaching process. As teachers, we must see the real application of new ideas for it to inspire us to change our practice**.** To do this, student learning must demonstrate relevance based on research and salience in regards to providing twenty-first century learning experiences.

Summary

Though student engagement has a solid research base stretching back decades, student perceptions of engagement, specific to the New Media classroom, is a field which has not yet been addressed in any significant way. With this in mind, this chapter focused on the theoretical groundwork which formed the basis for this study, primarily student

engagement and its relationship to twenty-first century learning. This research base encompassed work on twenty-first century learning and student engagement as they pertained to student learning in the New Media classroom, specifically during the video-creation unit which was taught with a student-centered approach. Through the writings of various educational writers and researchers such as Appleton et al. (2003), Shernoff et al. (2003), Smith et al. (2005), Zhao & Kuh (2004), Zimmer-Gembeck et al. (2006), Rahn (2003), Domine (2009), Dweck (2006), Prensky (2005, 2006, 2009), and Scardamalia, and Bereiter (2003), the premise of digital literacy through the creation of media texts was analyzed. Twenty-first century learning, student engagement, and the creation of meaning through production of media texts are the pedagogical underpinnings of this study.

This chapter provided the theoretical rationale for the twenty-first century learning for acquiring media literacy. It also included the rationale for this study as to whether the student-centered instructional method used could achieve the level of student engagement desired for producing learning during a student-centered video creation unit. Through a cross-methods approach, this study attempted to answer this query by providing a snapshot of student perception of engagement and twenty-first century learning during a student-centered video creation unit.

Chapter Three: Methodology

Overview

Research into student perceptions of their own engagement within the New Media classroom is in its infancy, and requires detailed exploration and clarification. This chapter provides a summary of the research design methods and procedure used for the study. The study investigated, through qualitative interviews, students' perceived impact of a student-centered instructional approach to video creation on the nature and level of student engagement. The purpose of the study was to determine student perceptions of engagement during a video creation unit. In order to determine this, individual interviews were conducted with eight student participants. These interviews were transcribed and analyzed to identify themes and meta-themes in order to create a thematic structure of experiences with student engagement.

The purpose of using this qualitative instrument (individual interviews) was to create a scenario where it was possible to explore the nature and levels of student engagement from the student perspective. "The specific methods or procedures of research that translate the approach into practice" (Creswell, 2003, p. 5) were carefully considered when developing the qualitative method of interviews and the following interpretation. The CES and GPA ensured that the researcher interviewed a typical and representative sample of students from the class, while the qualitative methods were developed in order to best answer the research question itself. The interview questions used in the research were open-ended, and encouraged student discourse, provided a rich understanding of the student experience. The analysis of these student responses allowed the identification of recurring concepts and patterns in the data using standard qualitative analysis techniques

(Strauss & Corbin, 1990, 1998). To do this, the researcher searched for the "themes, patterns, [and] interpretations" (Creswell, 2003, p. 15) inherent in the students' interviews. This was done through the careful transcription of the interview data, and the creation of marginalia. These concepts were connected thematically, and these larger themes organized into a comprehensive structure in order to interpret the findings. The evolution of research data moved from strands of direct student statements, to themes developed by the researcher based on these strands, to meta-themes connecting the themes into a logical structure.

The data collected by the researcher was both expansive and yet still specific to individual students. Interviewing a representative sample of students, rather than the entire class, enabled in-depth interviews to be conducted, while still yielding a manageable data set. By focusing on a single project (video creation) taught by one teacher at one school, alike in all aspects, this study was able to create a snapshot of student perceptions of student engagement and twenty-first century teaching practises in regards to a student-centered instructional approach to video creation.

Importance of the Study

There are numerous reasons pointing to the importance of a study such as this. As established in the introduction, the world of technology is expanding at such a rate that it is impossible to train students for the jobs they will eventually have in the work world. We simply do not know what those jobs will be. The changes are far too rapid for us to anticipate. Instead, the most important skill we can offer students is not expertise, per se, but the ability to become media literate. The concepts of twenty-first century learning and student engagement are two methods through which these skills can be taught.

One crucial element of twenty-first century learning is identified by Delors (1998) when he writes that "its mission is to enable each of us, without exception, to develop all our talents to the full and to realize our creative potential" (p. 19). To this end, literacy in all fields must be considered and taught. Livingstone (2004), Aufderheide (1993), Galinsky (2010), and Jacobs (2010) suggest that media literacy can be developed through working in new and innovative ways with various media. "Media literacy learning is hands-on and experiential, democratic (the teacher is researcher and facilitator), and process-driven" (Aufderheide, 1993, p. 10). By providing students with a way to navigate through whatever changes occur in the world of the future, we can assist them in becoming critical consumers and producers of media. Within the New Media course that was part of this study, this approach was seen through the thoughtful construction of final projects. In it, a student-centered instructional approach was used with video creation. The teacher fulfilled the role of facilitator, providing a scaffolded approach to instruction for the course and assisting students in coming up with their own large-scale projects. By completing these unique projects, students in this class were able to demonstrate a mastery of the course objectives.

This study has particular importance for Canadian schools, where Information and Communication Technology (ICT) outcomes are embedded in all levels and all curricula. Currently, there are few student-engagement studies specific to the Alberta curriculum and student perceptions of their learning, so this study would provide a new perspective in regards to the ways that ICT outcomes are integrated into the curricula of Canadian schools. By looking at the students' perceptions to one particular twenty-first century instructional approach used in teaching New Media, one may be able to apply these results to other classrooms using this same student-centered approach to video creation. Therefore,

an analysis of student perceptions to a student-centered instructional approach to video creation is a worthwhile endeavour.

There are plenty of studies regarding the exploratory approach to instruction. Duffy and Cunningham (1996), Friesen and Jardine (2009), Gazi (2009), Gonen, Kocakaya & Inan (2006), Gutek (2008), Taylor and Maor (2000), Miller (2002), Perkins (1991), Phillips (1995), Spiro et al. (1991), Taylor et al. (1995) have all written about constructivism in the classroom. However, research into twenty-first century learning and student engagement within a New Media setting is limited, due to its nascent status relative to educational studies. Even studies such as those by Shernoff et al. (2003) and Sipos, Battistini & Grimm (2008) provide only a small portion of the possible data, since they do not focus their methods on a technology classroom in particular, but on schools in general. (For further discussion, see Chapter Two: Literature Review.) Given the dearth of research into student engagement and twenty-first century learning specific to New Media classrooms, a study such as this provides much needed evidence of student perceptions of the student-centered instructional approach to video creation.

Research Design

Research Questions. The core research question for this study was: By way of student focused self-reports and qualitative interviews, what was the perceived impact of a student-centered instructional approach to video creation on levels of student engagement?

There were three sub-questions diverging from this main query. (All of these were in regards to the student-centered approach to video creation.) These sub-questions were as follows:

A) How did male and female perceptions vary?

B) How did the perceptions of high and low engagement students vary?

C) How did the perceptions of high and low achievement students vary?

Student Engagement. The notion of student engagement as manifested in the New Media classroom, has not yet been researched in any significant way. Therefore, there is a paucity of instrumentation by which to investigate engagement in this type of learning environment.

In approaching this research, the researcher considered several measures for gathering and analyzing the student-generated data regarding student engagement. Creswell (2003) provides a summary and analysis of various qualitative and quantitative instruments, along with a review of the positives and negatives of each method. Since the purpose of this study was to establish a perception of student engagement via twenty-first century instructional practises, it was important to select an instrument which measured, without limiting, student perceptions of their own engagement. A broad understanding of student perception of engagement in the process was needed in order to be able to create an accurate measure. Given this, several approaches were considered.

The first consideration was a completely researcher-created questionnaire measuring observed levels of student engagement. While quantitative measures such as questionnaires provide the researcher with clearly measurable amounts of data, the issue becomes removing researcher bias, and the underlying limitations of inter-rater reliability. Given that this study had the researcher functioning as the instructor as well, researcher-created questions included in such a questionnaire would not work well within this scenario.

Another option was to select a pre-existing large-scale, questionnaire which had been tested in the field. This would do a number of things: First decrease this limitation of researcher instructor bias, and secondly, provide a degree of validity to the instrument. Given this option, research which provided perspectives on existing student engagement questionnaires was considered. Fredericks & McColskey (2011) provide a summary of twenty-one different instruments measuring student engagement from elementary through high school. Kuh (2001) adds to this research base by investigating the National Survey of Student Engagement (NSSE), the largest and most broadly known of the North American student engagement questionnaires. In reviewing this literature, the researcher noted that there were several existing questionnaires which were targeted specifically for high schools. Some of them, such as the High School Survey of Student Engagement (HSSE) and the Student School Engagement Survey (SSES) had been used on a large-scale, national level, giving them a degree of reliability which other measures simply didn't have. There were, however, other considerations to using these instruments. As Fredericks and McColskey (2011) point out "instruments for measuring engagement are not easily accessible as a group in a way that allows for comparison because they arise from different disciplinary perspectives and theoretical frameworks" (p. i).

The primary issue for this study was that although many of these questionnaires work well in a large-scale, setting, providing a measure of the engagement of the school as a whole, none of them were focused on the classroom itself, or specifically on the New Media classroom. Another issue involved the definition of student engagement being used for this study (see Definition of Concepts) which includes the three attributes of behavioural, emotional, and cognitive processes (Appleton et al., 2008, p.370) did not exist

in many of the engagement tools. Fredericks and McColskey (2011) note this irregularity in that the "items used to measure behavioural, emotional and cognitive engagement are sometimes used inconsistently across instruments" (p. 10). Lastly, the twenty-one tools analyzed in the study all provided students with pre-selected options for responding, thus limiting student responses to these choices, suggesting that a student-focused interview would be a better option.

Another measure which was considered was Hoy's (1998) "Organizational Climate Tool" which measures various factors that impact student experiences. This tool is based on research by Hoy, Hannum & Tschannen-Moran (1998) which demonstrated that a school's climate influences the students who attend there. The "Organizational Climate Tool" provides a measure of student experiences through the analysis of student and teacher perceptions of organizational climate and student achievement. As such, this tool provides a clearer measure for creating a quantifiable difference of perceptions of classroom climate but it does not connect to student engagement or twenty-first century learning which are both important elements of the instructional approach used in the New Media video creation pedagogy in this study.

Considering these factors, the researcher elected to use a qualitative instrument and to design individual interviews in order to explore the nature and levels of student engagement. Ultimately, the researcher opted to use interviews with the individual students and then analyze the responses in order to identify themes and patterns in the data using standard qualitative analysis techniques (Strauss & Corbin, 1990, 1998). These interviews provided an opportunity to gather rich and comprehensive, but manageable amounts of qualitative data which represented typical student experiences and perceptions of

engagement and twenty-first century learning without the limitations of pre-existing questionnaires.

Research Design and Sample Matrix. To identify and select the most representative cross section of students possible, several sampling techniques were used. Gender was one easily included factor, high and low achievement (as defined by grade point average) another, whereas self-perceived engagement became more of a challenge. The researcher needed to find a way to identify those members of the class who had self-perceived levels of high and low engagement (see Table 1). In order to identify students' self-perceptions of engagement, the researcher chose to use a portion of the questions included in the "Classroom Environment Scale" (CES) designed by Dr. E. Trickett and Dr. R. Moos (2002).

The CES was first published in 1974 and has been updated several times in the intervening years. The most recent version of this tool was developed in 2002, and it was a variation of this particular measurement tool which was used in order to select the appropriate questions to measure self-perceived engagement.

The reasons for selecting a portion of the CES test were threefold. First, it provided a quantifiable measure of difference in student perceptions of classroom climate via nine subscales which linked closely to the three patterns of action in student engagement as identified by Appleton et al. (2008, p. 380). Of the nine subscales, five were most closely connected to the three patterns of action in student engagement. These were: Involvement, Affiliation, Teacher Support, Innovation, and Order and Organization. Cognitive engagement could be connected to the subscales of teacher support, and innovation.

Behavioural engagement could be connected to encompass order and organization, and teacher support. Emotional engagement could be connected to affiliation and involvement.

Considering the purpose of this study, by connecting to the three elements of engagement (cognitive, behavioural, and emotional), the researcher was able to propose a measure of student self-perceptions of engagement via the CES thus allowing the interviewees to be quantitatively selected. Secondly, as a research instrument, it provided an easily interpreted amount of data. It could be completed anonymously and online, which reduced the issue of power from the researcher/educator conflict. The students could complete the questionnaire without the involvement of the teacher at all. The Trickett and Moos CES questionnaire is not specifically designed, through its items, to look solely at engagement within the New Media classroom. Some of its elements focus on classroom climate, which connects closely to twenty-first century teaching practises in regards to a student-centered instructional approach, and the overall goal of this study of student engagement.

The researcher also used student achievement scores to determine high achievers and low achievers, according to the GPA of a student's core classes, within the class and used gender as a third variable of interest. Using this information, a typical and representative sample for qualitative research interviews was constructed. Following administration and scoring of the adapted CES scales, the researcher selected eight students for interview who represented high and low perceptions of classroom climate (CES scale) in terms of student involvement, high and low achievement, and male and female as per Table 1 below.

Table 1

Diagram of Typical and Representative Sample for Individual Interviews.

Academic Performance	High Perceptions of Student Involvement (as identified by CES)		Low Perceptions of Student Involvement (as identified by CES)	
High	Boy	Girl	Boy	Girl
Low	Boy	Girl	Boy	Girl

A last source of data was the teacher's professional notes, reflections, and anecdotal reports. This data informed the researcher's interpretation of the interviews and in illustrating, in narrative form, the way in which engagement manifested itself for each unique learner.

The sample matrix and research design provided a typical and representative sample of students for the interviews. As Creswell (2003) explains, "the idea behind qualitative research is to purposefully select participants... that will best help the researcher understand the problem and the research problem" (p. 185). Each individual in the matrix was interviewed individually to investigate the research questions in order to better portray and understand student engagement, whether and how it is manifested in the video creation learning experiences.

The individual questions included in the engagement questionnaire used in this study were specifically selected due to their connection to those three patterns of action in student engagement as identified by Appleton et al. (2008, p. 380): Cognitive, Behavioural and Emotional engagement. Each of the questions in the research-created questionnaire

were taken directly from the CES (Trickett and Moos, 2002) and included without alteration. The selected questions fit within the subscales of Involvement, Affiliation (0.49), Teacher Support (0.45), Innovation (0.44) and Order and Organization (0.49) and were most clearly related, directly or indirectly, to student-centeredness and engagement (Trickett & Moos, 2002, p.15). (Inter-correlations of these subscales with Involvement are noted above in brackets). The other subscales have very low correlations with involvement.

Trickett and Moos (2002) define these five subscales as follows: Involvement is "the extent to which students are attentive and interested in class activities, participate in discussions, and do additional work on their own" (p. 1). Affiliation is "the friendship students feel for each other, as expressed by getting to know each other, helping each other work with homework, and enjoying working together" (p. 1). Teacher Support is "the help and friendship the teacher shows toward students; how much the teacher talks openly with students, trusts them, and is interested in their ideas" (p. 1). Innovation is "how much students contribute to planning classroom activities, and the extent to which the teacher uses new techniques and encourages creative thinking" (p. 1). And Order and Organization is "the emphasis on students behaving in an orderly and polite manner and on the organization of assignments and activities" (p. 1).

Adaptation and Application of the CES Scale. The five CES subscales that were used in this study were Involvement, Affiliation, Teacher Support, Order and Organization, and Innovation. The items on each of their subscales are included in the Tables below (Tables 2 through 6). Following each table, items which were included and the reasons for their inclusion have been noted. The adapted composite rating scale of items used in this study have been included at the end of this section.

Table 2

Involvement.

CES Questions

CES Numbers	1. Students put a lot of energy into what they do here.
	10. Students daydream a lot in this class.
	19. Students are often "clock-watching" in this class.
	28. Most students in this class really pay attention to what the teacher is saying.
	37. Very few students take part in class discussions or activities.
	46. A lot of students "doodle" or pass notes.
	55. Students sometimes present something they've worked on to the class.
	64. A lot of students seem to be only half awake during class.
	73. Students sometimes do extra work on their own in the class.
	82. Students really enjoy this class.

The items included in Table 2 all fall within the CES subscale of Involvement. This subscale aligns with Appleton et al.'s (2008) pattern of behavioural engagement. The questions deal specifically with the experiences of the student within the classroom as it manifests itself in physical behaviour by the student. Each question investigates how students behave in the context of the classroom, with one another ,and as individuals. (All ten of the questions within this subscale have been included.) Items 1, *students put a lot of energy into what they do here*, 28, *most students in this class really pay attention to what the teacher is saying*, 55, *students sometimes present something they've worked on to the class*, 73, *students sometimes do extra work on their own in the class*, and 82, *students*

really enjoy this class, all have a positive weighting respective to the CES scale. Items 10, *students daydream a lot in this class*, 19, *students are often "clock-watching" in this class*, 37, *very few students take part in class discussions or activities*, 46, *a lot of students "doodle" or pass notes,* and 64*, a lot of students seem to be only half awake during class*, all have a negative weighting respective to the CES scale. By developing a composite ranking of these questions by students in the classroom, the overall perception of students to this particular framework of behavioural engagement was created.

 It should be noted that question 37, *very few students take part in class discussions or activities,* and 73, *students sometimes do extra work on their own in the class* also demonstrate a connection to cognitive engagement as well as behavioural engagement. In these two questions, the connection goes further than students simply behaving appropriately, but also suggests the willingness to go beyond minimum course expectations in order to challenge oneself for higher levels of engagement in a cognitive sense. Lastly, question 82, *students really enjoy this class*, demonstrates a student's emotional engagement. A positive affective reaction to being within the classroom fulfils Appleton et al.'s (2008) pattern of emotional engagement.

Table 3

Affiliation.

CES Questions

	CES Questions
CES Numbers	2. Students in the class get to know each other really well.
	11. Students in this class aren't very interested in getting to know other students.
	20. A lot of friendships have been made in this class.
	29. It's easy to get a group together for a project.
	38. Students enjoy working together on projects in this class.
	47. Students enjoy helping each other with homework.
	56. Students don't have much of a chance to get to know each other in this class.
	65. It takes a long time to get to know everybody by their first name in this class.
	74. There are groups of students who don't get along in class.
	83. Some students in this class don't like each other.

The items included in Table 3 all fall within the CES subscale of Affiliation. This subscale aligns with Appleton et al.'s (2008) pattern of emotional engagement. The questions found in this subscale all contain elements of affective reactions to experiences within the classroom setting. Items 2, *students in the class get to know each other really well*, 20, *a lot of friendships have been made in this class*, 29, *it's easy to get a group together for a project*, 38, *students enjoy working together on projects in this class*, and 47, *students enjoy helping each other with homework,* all have a positive weighting respective to the CES scale. Items 11, *students in this class aren't very interested in getting to know other students*, 56, *students don't have much of a chance to get to know each other in this*

class, 65, *it takes a long time to get to know everybody by their first name in this class*, 74,

there are groups of students who don't get along in class, and 83, *some students in this*

class don't like each other, all have a negative weighting respective to the CES scale. The

questions probe student reactions to one another and to the classroom teacher, within the

parameters of emotional engagement. How the student feels about the class, about his or

her peers and about the classroom teacher are all components of this subscale of questions.

It should be noted that questions 29, *it's easy to get a group together for a project,*

also connects to Appleton et al.'s (2008) pattern of cognitive engagement. In this question,

not only is the emotional aspect of engagement relevant, but given students' choices

regarding group work, it connects to cognitive aspects of engagement as well.

Table 4

Teacher Support.

CES Questions

CES Numbers	3. This teacher spends very little time just talking with students.
	12. The teacher takes a personal interest in students.
	21. The teacher is more like a friend than an authority.
	30. The teacher goes out of his or her way to help students.
	39. Sometimes the teacher embarrasses students for not knowing the right answer.
	48. This teacher "talks down" to students.
	57. If students want to talk about something, this teacher will find time to do it.
	66. This teacher wants to know what students themselves want to learn about.
	75. This teacher does not trust students.
	84. Students have to watch what they say in this class.

The questions included in Table 4 all fall within the CES subscale of Teacher Support. Given the specific nature of the student-teacher relationship, and the affective reactions tangent to this, this subscale aligns with Appleton et al.'s (2008) pattern of emotional engagement. The questions focus specifically with the classroom teacher's connection to his her students, and how that is perceived through students' eyes. Items 12, *the teacher takes a personal interest in students*, 21, *the teacher is more like a friend than an authority*, 30, *the teacher goes out of his or her way to help students,* 57, if *students want to talk about something, this teacher will find time to do it*, and 66, *this teacher wants to know what students themselves want to learn about*, all have a positive weighting

respective to the CES scale. Items 3, *this teacher spends very little time just talking with students*, 39, *sometimes the teacher embarrasses students for not knowing the right answer*, 48, *this teacher "talks down" to students*, 75, *this teacher does not trust students*, and 84, *students have to watch what they say in this class*, all have a negative weighting respective to the CES scale.

It should be noted that questions 3, *this teacher spends very little time just talking with students,* and 66, *this teacher wants to know what students themselves want to learn about,* respectively, have to do with Appleton et al.'s (2008) pattern of cognitive engagement. The connection in these two specific questions goes further than a student's affective reaction to the classroom teacher, but also connects to expectations, class work and engagement in projects.

Table 5

Order and Organization.

CES Questions

CES Numbers	6. This is a well-organized class.
	15. Students are almost always quiet in this class.
	24. Students fool around a lot in this class.
	33. This class is often in an uproar.
	42. The teacher hardly ever has to tell students to get back to their seats.
	51. The teacher often has to tell students to calm down.
	60. Assignments are usually clear so everyone knows what to do.
	69. This class hardly ever starts on time.
	78. Activities in this class are clearly and carefully planned.
	87. Students don't interrupt the teacher when he or she is talking.

The items included in Table 5 all fall within the CES subscale of Order and Organization. This subscale aligns with Appleton et al.'s (2008) pattern of behavioural engagement. The questions deal with student actions within the classroom setting, specifically to do with the larger classroom dynamics and how students react to the events going on within the classroom. It is important to note that although the subscale questions in Table 5 are most closely related to behavioural engagement, a number of them also connect very closely to cognitive engagement. Items 6, *this is a well-organized class*, 15, *students are almost always quiet in this class*, 42, *the teacher hardly ever has to tell students to get back to their seats*, 60, *assignments are usually clear so everyone knows*

what to do, 78, *activities in this class are clearly and carefully planned*, and 87, *students don't interrupt the teacher when he or she is talking*, all have a positive weighting respective to the CES scale. Items 24, *students fool around a lot in this class*, 33, *this class is often in an uproar*, 51, *the teacher often has to tell students to calm down*, and 69, *this class hardly ever starts on time*, all have a negative weighting respective to the CES scale.

Question 15, *students are almost always quiet in this class*, question 24, *students fool around a lot in this class*, 60, *assignments are usually clear so everyone knows what to do*, and question 78, *activities in this class are clearly and carefully planned* all relate to Appleton et al.'s (2008) pattern of cognitive engagement. In these questions, the engagement doesn't only relate to an understanding of rules and following them, but also to a cognitive connection to the classroom work and high order thinking skills. By connecting to both the cognitive processes as well as the behavioural aspects of classroom, they fit two out of three of Appleton et al.'s (2008) patterns of engagement.

Table 6

Innovation.

	CES Questions

CES Numbers	9. New ideas are always being tried out here.
	18. What students do in class is very different on different days.
	27. New and different ways of teaching are not tried very often in this class.
	36. The teacher likes students to try unusual projects.
	45. Students have little to say about how class time is spent.
	54. The teacher thinks up unusual projects for the students to do.
	63. Students are expected to follow set rules in doing their work.
	72. Students can choose where they sit.
	81. Students do the same kind of homework almost every single day.
	90. In this class, students are allowed to make up their own projects.

The items included in Table 6 fall within the CES subscale of Innovation. Given that the questions concentrate on the malleability of classroom routine and the flexibility of student assignments within the classroom, this subscale aligns with Appleton et al.'s (2008) pattern of cognitive engagement. The questions focus on the class work as measured through assignments and projects, and how much student input is allowed within those parameters. Following Appleton et al.'s (2008) pattern of cognitive engagement, the notion of students' ability to actually affect or 'engage' in their own learning is demonstrated here. Items 9, *new ideas are always being tried out here*, 18, *what students do in class is very different on different days*, 36, *the teacher likes students to try unusual projects*, 54, *the*

teacher thinks up unusual projects for the students to do, 72, *students can choose where they sit*, and 90, *in this class, students are allowed to make up their own projects*, all have a positive weighting respective to the CES scale. Items 27, *new and different ways of teaching are not tried very often in this class*, 45, *students have little to say about how class time is spent*, 63, *students are expected to follow set rules in doing their work*, and 81, *students do the same kind of homework almost every single day*, all have a negative weighting respective to the CES scale.

It should be noted that question 72, *students can choose where they sit*, has an aspect of affective relationship to student engagement as well. This is due to the student affective reactions to classroom routine and order, and the subsequent connection to Appleton et al.'s (2008) pattern of emotional engagement.

Analysis of the Five Subscales. The results of this engagement questionnaire is scored by measuring the number of 'correct' answers in each of the appropriate subscales. In this particular study, the raw scores were tabulated on questions taken from only five of the nine subscales.

In the original CES, and in the adapted engagement questionnaire, there are ten questions for each of these subscale items, thus allowing a raw score of fifty points to be measured for the class. Since these are separated out by individual CES themes, the raw scores may be compared to the norms of the CES questionnaire. (See Appendix B for scoring details.)

Students with the highest number of 'correct' answers for these questions would have the highest levels of measured engagement in the class. Students with the lowest

number of 'correct' answers for these questions would have the lowest levels of measured engagement in the class.

Student-Centered Instructional Method. In this New Media course, there was a specific instructional methodology used to teach the video creation unit. This student-centered instructional approach to video creation included key elements of twenty-first century learning where students developed a large, student-centered video project. This video demonstrated both their mastery of the course's learning outcomes and an understanding of media literacy through the creation of their own video narrative.

Learning took place within appropriately selected peer groups. The independent process of video production was gradually emphasized as students became ready, and as student collaborative decision-making and choices developed. Students received student-centred, scaffolded instruction, leading ultimately to a large-scale, independent video project. This project focused on an innovative, personal interpretation of the curricular outcomes for New Media.

In the student-centered approach to video instruction, the teacher functioned as a facilitator of the students' learning, rather than a purveyor of information. The methodology of twenty-first century instruction (discussed in the literature review) was embedded into this instructional approach. Students were provided with the student learner outcomes, and developed their own skill-set during the course via scaffolded instruction. In this approach, the instructor began with specific outcome-focused instruction to develop basic skills, and as students developed and mastered these skills, the instructor began to provide opportunities for independent work until, by the end of the video-creation unit,

students were working completely independently on their own student-generated video projects.

Once students developed enough skills to be able to create video projects, they began generating choices for their own final projects, based on the specified learner outcomes of the course. Students were then provided with an opportunity to work on a large-scale project for an extended amount of time. Following the methods inherent in twenty-first century learning, these projects were formatively assessed during the progress of the video-creation component of the course. The formative assessment was done via class critiques, think-pair-share meetings between peers, and in one-on-one discussion with the instructor. Throughout the video-creation unit, students were provided with the opportunity to alter and revise these assignments using this feedback. When the final projects were handed in, they were marked summatively, using a rubric which was based on the specified learner outcomes of the course.

Procedure

Participants and Sample. The sample group involved in this study was a New Media Class taught during the spring term of the 2011-2012 school year at a small, urban high school. The class make-up was a mixture of 32 students from grades 10 through 12. The gender distribution included 20 males and 12 females. Official approval to complete this study was obtained from the Superintendent of the Holy Spirit School Division, Mr. Chris Smeaton, prior to the study beginning. (See Appendix T.) This permission was obtained through the application through the Human Subjects Review panel of the University of Lethbridge.

Research Implementation Protocol. In this study, the biggest challenge was that the researcher and the teacher were the same person. The results of this was that the researcher both taught the class and conducted the post-course interviews. The challenge was to adequately separate these roles. (This factor is discussed in the Delimitations of the Study). A second concern was that the invitation to participate in the interviews might have been influenced by the power relationship the teacher had with students. These issues were mitigated by involving the school counsellor in the presentation of the research project. The counsellor solicited participation for the engagement questionnaire and later, invited participants to be part of the interviews. Each of these steps were taken in order to minimize undue influence by the instructor researcher.

A school counsellor, with a role completely outside the research project, described the purpose of the study to the students and explained why the teacher was completing the research. This person also described how, after the course had ended, a small group of students would be invited to participate in the interview portion of the research. The interviews would take place after the course was complete. The counsellor explained that in order to pre-select the participants for the interviews, the students were encouraged to complete an online questionnaire. This was not completely anonymous, as the data was used by the instructor researcher to select the participants of the interviews, but none of this information would become publically available. During this presentation of the research study and what it entails, the teacher was not be in the classroom, so as to allow students the freedom to ask questions and have concerns answered without being swayed by the teacher's researcher's wishes.

This counsellor also answered questions regarding the study and the type of research being done during the study. The counsellor made it clear to the class that even if they were invited to be part of the interviews after the end of the course, they had the option to decline being part of the interview process. The counsellor assured students that their identities would remain anonymous in the subsequent write up of the research, and that the interviews would not take place until after the course is complete and grades were already submitted. This approach was used in order to reduce the pressure to participate due to the power relationship between teacher and students, to help ensure student anonymity, and to emphasize to students that the decision to participate or not participate in the research study would have no bearing on their achievement in the course.

The second way undue influence by the teacher researcher was removed was by having this same counsellor invite those students who had been identified, via the CES, as possible participants for the interviews. This took place as soon as the CES had been tabulated at the end of the term. Once again, the teacher left the classroom and the counsellor invited the pre-selected students for the interviews to participate in the interviews. The counsellor re-explained the purpose of the interviews and provided the same assurances regarding participation, anonymity, confidentiality, and classroom marks as previously noted.

Students who were interested in participating in the interviews were provided with parent permission forms which were to be signed and returned to the school prior to the interviews. This form granted the researcher permission to include the students as part of the research study. Students who wanted to opt out of participating could have informed the school counsellor of this choice at this point. Should this have occurred, an alternate

student would have been chosen, and the same process would have taken place on the following day. This way the students would not be influenced in their decision to participate or decline and the persuasive power relationship of teacher to student would have been mitigated. In this particular study, however, all students who were invited to participate in the interviews agreed to participate.

Interviews

The second part of this study was the qualitative individual interview process using the sample design illustrated on Table 1. The interviews were set within a relaxed conversational context using the following questions as prompts with other follow up questions as appropriate to deepen understanding. The purpose of the interviews was to gather enough data that larger trends and themes within all of the interviews could be seen. By engaging a small, representative group of students in the individual interview process, a manageable, yet rich amount of data was gathered in regards to student perceptions of a student-centered approach to video instruction. This depth of research built upon the baseline measurement done via the student engagement CES questionnaire.

1. What does being "engaged" mean to you as a student?

2. What gets you really excited about a class/course? And why?

3. What things affect your enjoyment of a class? And why?

4. What things affect your enjoyment of a particular project? And why?

5. In this particular New Media class, what parts of the video creation unit kept you most engaged? Least engaged? And why?

6. How did you feel about having to develop your own final project for the video creation unit?

7. What did you enjoy about developing your own final video project? Not enjoy? And why?

8. How might your experiences have been different if you'd only been given one option for a final project? And why?

9. What excited you the most about your video final project? Least excited you?

10. What parts of the video creation project held your focus and attention to detail the most? Least focus and attention? And why?

11. How were you able to stay focused on a long-term project that took several days to complete?

12. As a student, what kinds of learning activities teaching help you stay most engaged? Least engaged?

13. What kept you most excited and enthusiastic in this class? Least excited and enthusiastic?

14. If I could go back and re-teach the video creation unit for the class, what do you think I should change, and why?

15. Are there any other things you'd like to mention regarding student engagement?

Data Interpretation and Analysis

Student reactions to this instructional method were discussed during the individual interviews and analyzed using standard qualitative interpretative procedures (Strauss & Corbin, 1990, 1998). Interviews were transcribed and analyzed to identify themes and meta-themes to eventually create a thematic structure of experiences with student engagement. An 'open coding' system of categories based on organizing the information into "chunks" (Rossman & Rallis, 1998, p. 17) was created through reading, rereading, and

making theoretical coding notes. With this completed, concepts, issues, and other themes which reappeared time and again in the responses were identified. From this point, broader meta themes from the interviews were analyzed and interpreted. The relationships among major and minor themes were noted and the thought structure created. Quotes and extracts from the interview data were used to construct illustrative portrayals of themes and other relationships. Comparisons were made across interviews to identify similarities and differences between individuals, considering levels of engagement, gender, and academic performance. (These results, and an interpretation of the data can be found in Chapters Four and Five respectively).

Delimitation of the Study

This study was focused on student perceptions of a student-centered instructional approach to video creation. The study was delimited as follows:

1. The population of the study consisted of a single New Media class at a small, urban high school. The population was drawn from a general population of students, not specifically selected. (This occurred when students registered for the term.)

2. This class was similar to the other New Media classes being offered during the school year in classroom makeup. In other words, this particular New Media class was not pre-selected for student demographics, however, that in itself was an issue regarding validity. (See Limitations of the Study for further details.)

3. The class was provided with the same curriculum and instructed by the same teacher, in the same way, as the other New Media classes offered during the year. The class involved in the study had access to the same technology and software, as well as being instructed within the same classroom space. The single focus of the

study was on student perceptions of engagement during the student-centered
instructional approach to video creation.

4. The engagement questionnaire used was formulated using selected questions from
   five of the nine subscales in the "Classroom Environment Scale" developed by Dr.
   E. Trickett and Dr. R. Moos (2002). This was administered to the class at the end of
   the course in order to provide a measure of student perceptions of classroom
   environment (climate) so as to provide a tool for measuring student perceptions of
   engagement and twenty-first century learning. While not all of the questions in the
   original CES were used in the questionnaire, a number of them were selected which
   fit best within the confines of this study. (See Chapter Three: Methodology for
   details.)

   There are nine subscales of the CES: Involvement, affiliation, teacher
   support, task orientation, completion, order and organization, rule clarity, teacher
   control, and innovation. Of the nine subscales, five are most closely connected to
   the three patterns of action in student engagement as determined by the conceptual
   similarity and the subtest inter-correlations (see Research Design and Sample
   Matrix). These are: Involvement, Affiliation, Teacher Support, Innovation, and
   Order and Organization. Cognitive engagement is intrinsically connected to teacher
   support, and innovation. Behavioural engagement has been extended to encompass
   organization and teacher support. Emotional engagement connects with the CES
   measures of affiliation and involvement. By connecting to these three elements of
   engagement (cognitive, behavioural and emotional), the engagement questionnaire
   was built around the five subscales of the CES (Trickett and Moos, 2002). It

provided a measure of student perceptions of their own engagement via the classroom climate, thus allowing the interviewees to be quantitatively selected.

5. The determination of student affective reactions to the instruction, and an analysis of student engagement in the course was completed with an interview of a representative sample of students who fit the description of high and low academic performance (as measured by grades) and high and low engagement (as measured by the engagement questionnaire).

Limitations of the Study

A limitation of a study such as this is that there was no way to ensure, without specifically selecting classroom lists, that this class was equitable to all other classes offered during the year. Given this fact, the male female ratio of this class was not equitable (there were 20 males and 12 females). The class size, however, (as compared to others during the year) was roughly equitable (there were 32 students in total, compared to the previous term's number s of 34 and 33), and the student abilities and achievement levels were not identical to the makeup of other classes in other years. Knowing this, the findings of this study may not be representative of other classes.

It is a given that there are limits to all forms of evaluative processes, especially those attempting to quantify such potentially abstract concepts as twenty-first century learning, student engagement, classroom climate, and student-centeredness. The first question that arises is how accurately aligned the measurement tool is to the indicators which it is attempting to measure. In this situation, the classroom climate was being analyzed in order to assess students' perceptions of their own engagement given the specific instructional method. The student perceptions of the video-creation project was, in

itself, a qualitative measure, and, may have been affected by their willingness to participate in the interview process.

Another consideration that limits this study were the scales of measurement, and how they were perceived and interpreted by the participants. While the tool was designed to provide a measure of student perceptions, it could not account for answers where students chose to answer incorrectly, to falsify answers or to randomly guess. In addition to this, the interview process was only as effective as the students being interviewed allowed. (Further discussion of this is effect is explored in Chapters Four and Five). If students chose to falsify their answers or became bored and did not respond fully to the questions, the interview was limited by this choice.

During this study, the primary focus was on identifying student perceptions of engagement during the student-centered instructional approach to video creation. In this scenario, the teacher functioned as a facilitator of the students' learning. The students generated their own final projects, based on the specified learner outcomes of the course. These were formatively assessed during the progress of the class so that students were able to make changes to them as they proceeded.

Given that the same teacher, functioning in the dual role of researcher, taught the class involved in the study, a significant challenge was the degree to which the teacher could adhere strictly to her varied roles. The roles involved being the facilitator of the student-centered video-creation instructional method, while still being an impartial researcher of the students' perceptions of engagement. According to the researcher's perception, since this is the usual instruction in this particular New Media classroom, the issue of the dual role was not significantly disruptive. Nonetheless, as both instructor and

researcher, the researcher made a concerted effort to maintain the student-centered approach, while being impartial in the analysis of the interviews.

Another issue that emerged from the dual role of researcher instructor was the possibility that the interviewees were swayed in their answers to both the engagement questionnaire and the interview questions by the affective relationship with the teacher. These issues were partially mitigated by building clear instructional methods and approaches into all course outlines and materials and assignments and instructions etc., though this is still recognized as a limitation to this study.

Though grades were not included as part of the study's analysis, another limitation related to the issue of teacher as researcher was the "halo effect". In a scenario such as this one, where the teacher was also the researcher, it is entirely possible that the teacher's own bias as to the positive nature of a student-centered approach to video creation might have swayed students' perceptions of engagement, their willingness to complete the questionnaire, or their perception of the classroom experiences as described in the interviews. These issues were mitigated by the inclusion of the school counsellor in the role of supervisor of the questionnaire and in the selection process for interview candidates. Despite this, the concerns of teacher/research duality continued to be a limitation throughout this study and should be recognized as such.

A final limitation of this study was the extent to which one could generalize the results and conclusions of the findings. Given that a small sample size was studied, following only one classroom and one methodological approach, the ability to make broad statements on the findings may be limited. This study should, instead, be seen as a snapshot of an existing set of circumstances and student perceptions of one specific class. In contrast

to the above, however, the individual students typically represented in this class do represent many others of similar nature and life circumstances. The student perceptions of engagement can, then, provide potential insights into other students learning to become engaged and the challenges they face.

Assumptions

This study assumed the following to be true:

1. The instrument developed to measure student engagement adequately measured student perceptions as it pertained to the three elements of engagement: Cognitive, behavioural, and emotional engagement (Appleton et al., 2008).

2. The students involved in completing the engagement questionnaire and interview answered the questions honestly and without bias.

3. The interview questions provided an accurate measure of student perceptions in regards to a student-centered approach to video creation as it related to the students' engagement.

Summary

In summary, the purpose of the two research instruments used for this study was to provide a cross-methods portrayal of the perceived impact of a student-centered instructional approach to video creation. This particular study involved the analysis of two different data sets. First, all students who agreed to participate completed a quantitative measure: the engagement questionnaire based around Trickett and Moos' Classroom Environment Scale (CES) which assessed student perceptions of engagement. All students in the class were approached by an outside source, the school counsellor, to participate in this survey. Secondly, eight participants were selected in the categories of high low

academic performance (grades), high versus low engagement (CES) and gender in order to parse a typical and representative sample for interview purposes. By analyzing and comparing students' answers to the interview questions, the researcher could then identify what themes and patterns, if any, existed amongst students in response to a student-centered instructional approach to video creation.

Chapter Four: Findings and Analysis

Overview

The pursuit of instructional excellence for students, no matter what ability level or background, is one of the most important tasks given to teachers today. In order for educators to accomplish this, any number of events must occur, but the end result must be the engagement of the students involved. Without engagement, students become apathetic, separating them from their own learning. Given this, the levels of engagement are of utmost interest to educational researchers as they provide us with clues on how students perceive their own learning and which instructional methods are most effective for 21st century learners.

This study addressed the following questions: First, would students learning in a classroom where the video creation unit is taught through student-centered instruction perceive the classroom climate as engaging? Second, would students taught within a classroom where the twenty-first century learning approach is embedded in the instruction of video creation perceive their own engagement in the classroom task of video-creation in a positive manner? Given that: What is the nature of student engagement? Under what circumstances does it occur and why? And are there any differences between males and females, and high and low achieving students? This chapter provides the student-generated responses to these queries.

In January, 2012, after the class had completed the course, the New Media students participated in the first stage of data research, where individual students completed a selection of questions from five of the subscales in the Trickett and Moos (2002) Classroom Environment Scale (2002) in order to select a typical and representative sample

of students who demonstrated a variety of perceptions of engagement. These measures, together with gender, and GPA (to identify high achieving lower achieving students), were used to select a typical and representative sample of eight students. These eight students participated in comprehensive interviews which lasted between 45 minutes and one hour each. In them, students spoke about their experiences in the class in relation to the nature of their self-perceived levels of engagement. A total of four male students and four female students participated in the interviews. Individual students involved in the research have been given aliases to preserve their privacy, and will be referred to, for the remainder of this paper, by those names.

This chapter provides the results of the sample selection procedure, a description and interpretation of students' interview responses, and an examination of the data from the administration of the CES questionnaire. The research methodology and methodology used to analyze the data is laid out and the final results of the primary questions addressed. The following sections will provide student perceptions of their sense of engagement during the student-generated and created video project.

The Typical and Representative Sample

Students in the classroom were identified as being high or low academic achievers through the students' GPA. The results of this were cross-referenced with the responses from the Trickett and Moos (2002) data and with the gender of the students involved. This provided an eight cell chart of student perception (see Table 7).

Given the data from both the GPA analysis and the baseline measures of student engagement questionnaire and gender, the students were separated into a typical and representative sample of the classroom. Within each cell of the sample design (see Table

7), the highest CES scoring or lowest CES scoring student was selected from each cell. Of

the class of thirty students, sixteen had agreed to participate in the survey questionnaire. Of

those sixteen students, the two highest and two lowest scoring males and females on the

CES scale were invited to participate in the interview process. All eight of these student

invited, agreed to participate in the interviews. The CES score for each student are included

in the chart below.

Table 7

Typical and Representative Sample for Individual Interviews.

Academic Performance	High Perceptions of Classroom Engagement (as identified by CES)		Low Perceptions of Classroom Engagement (as identified by CES)	
High Score	Boy "Hank" HIGH Engagement Score of 43	Girl "Jean" HIGH Engagement Score of 46	Boy "Allen" LOW Engagement Score of 32	Girl "Britney" LOW(ER) Engagement Score of 44
Low Score	Boy "John" HIGH Engagement Score of 39	Girl "Candice" HIGH Engagement Score of 45	Boy "Mike" LOW Engagement Score of 32	Girl "Tamara" LOW Engagement Score of 38

Note: Pseudonyms have been used in order to preserve the anonymity of the students
involved.

Descriptions of Students Involved in the Study

The eight students selected for the representative sample were a diverse group. The

description of each student, and a general overview of their placement in the classroom,

both socially and academically, has been described below. The students in the following

section have been paired by academic ranking and gender, allowing for a comparison of the two ends of the engagement spectrum provided for each couple.

For each of the students, some aspects of their personal and educational backgrounds, relevant to the subsequent interviews, will be addressed. Any particulars which would allow for these students to be identified have been omitted. For six of the students involved, these observations were made over a nine week period in which they attended the New Media class for three hours a day. For two students, these observations were made over two quarters of nine weeks each. In the case of Mike, this had been during two New Media classes in subsequent terms. For Candice, this had been done during an English 10-2 class in the Fall term and the New Media class in the Spring term. The following section provides a description of these students as the researcher perceived them, based on her experience of instructing these students over time.

"Candice": High Engagement, Low Academic Achievement. Candice came from a blended family, though she rarely shared details about them. There was a distinct separation of home and school life, and barring a few phone calls for absenteeism, the researcher didn't meet either parent. Candice was a grade ten student who had been streamed into the lower academic strand based on her marks in grade nine. Her transcripts and overall GPA in the core courses showed a low level of achievement in these classes. She had an Individualized Program Plan (IPP) for minor cognitive disabilities and learning delays. The researcher had taught her earlier in that school year in the 10-2 stream and had found her to be a cooperative, though easily distracted student.

"Tamara": Low Engagement, Low Academic Achievement. Tamara was an outgoing and sociable student from a two-parent home. She was a grade eleven student

whose GPA in the regular, academic stream, placed her in the lower (but not extremely low) academic achievement level. She took the 20-1 courses, but her marks were mediocre. Tamara was passing her core courses, though her marks were average rather than exceptional. Her highest marks were in her non-core courses.

"Jean": High Engagement, High Academic Achievement. Jean came from a stable, two-parent home, and support from them was clearly evident. Both parents attended parent-teacher interviews, and any unexpected absences (which were minimal) were excused. Also, Jean's parents always notified the school beforehand when co-curricular activities meant that she would be away, and Jean was quick to do the work before she even left for tournaments. She was a high academic grade ten student who was involved in both the sports academies at the school, and the academic programming. Jean's marks were in the honours range and her extra-curricular reflected a highly driven student who was willing to go far beyond the minimum for her classes.

"Britney": Low(er) Engagement, High Academic Achievement. Britney came from a stable, two-parent home, and had a sibling who had already graduated with honours, and was now attending university. She was a highly academic grade ten student taking the Advanced Placement (AP) courses. Britney's marks were in the honours range and her drive was apparent in her pursuit of extra science classes. Britney would definitely fit into the stereotypical academic niche. She was particularly interested in getting the highest possible grades and let the researcher know this.

"John": High Engagement, Low Academic Achievement. John came from a stable, two-parent home and had an older sibling who had attended the school a few years before him. He had a very proactive, involved mother who attended interviews and had

been very encouraging of John being involved in the interviews, even though John himself, was less excited about participating. He was a grade ten student who had been streamed into the lower academic strand based on his marks in grade nine. John's transcripts and overall GPA in the core courses showed a lower level of achievement in these classes. He found school challenging, though his attendance was excellent.

"Mike": Low Engagement, Low Academic Achievement. Mike lived with his mother, and had several siblings who were already grown and living on their own. There was no contact with Mike's father whatsoever. Mike was left in the care of his siblings for periods of time, and contact with home was sporadic at best. With extra attention by the school liaison officer and a schedule that kept Mike in the Knowledge and Employability (K and E) stream, he made slow, but effective, progress given his abilities.

Mike had an IPP and had been coded with mild disabilities and cognitive delays along with some very serious social difficulties. He found school particularly challenging, and had difficulty relating to other students. Conflicts with teachers and students had resulted in a diagnosis of oppositional defiance disorder (ODD).

"Hank": High Engagement, High Academic Achievement. Hank came from a stable, two-parent background, where his mother and father were highly involved in their children's lives. He also had a sibling who attended the same school and had also been an honours student too. Hank was hard-working and had a good attitude toward schoolwork.

Hank was a quiet and industrious grade ten student who was in the academic stream and had an honours level average. He was quiet unless he knew the person he was talking to. If this was the case, then he could be (and was) quite outgoing and gregarious.

"Allen": Low Engagement, High Academic Achievement. Allen came from a stable, two-parent family, and both these parents were actively involved in his schooling. Allen had no in-excused absences or lates during the entire course, and he arrived early for class every single day. Allen was a high-academic grade twelve student involved in the AP program. His marks were in the honours range and his focus and determination to achieve the highest possible grades was apparent in all of his endeavours. Allen excelled at school, and had delayed taking the course until his final year of high school.

Nature of the Group

As a whole, the group of students selected for the interviews were reflective of the students in the classroom. Mike, as an extreme case of the low academic, low engagement boy, came from the perspective of students struggling with schoolwork and social issues. Jean represented the stereotypical, high academic, high engagement girl, driven to succeed, with Candice as her low academic counterpart. Allen, with his high academic, low engagement dynamic, presented another extreme. (Details on how the students participated in the New Media class are located in Chapter Five.) The other students in the group, John, Tamara, Hank and Britney, filled in the gaps between these widely diverse individuals resulting in a typical and representative sample of the classroom as a whole. In statistical terms, the mean CES score for this group of interview participants is 39.9 as compared to the overall CES class group score of 40.4, a very close comparison with minimal variation.

Interpretation Procedure for Interview Data

The interview results were analyzed using standard qualitative interpretative procedures. (Strauss & Corbin, 1990, 1998). To this end, the interviews were transcribed, then reviewed for consistency and to assure accuracy of transcription. Student pauses,

repetition of words, use of teen-specific dialect and contradictory terms (incorrect and correct terminology) were recorded verbatim. (See Appendices G through N for these transcripts.) These transcripts were then printed and read and reread over the course of several weeks. After the third reading, the process of making theoretical memos and marginalia began. Particular phrases regarding engagement and student perceptions were highlighted, and notations of similar concepts, appearing in the same interview, noted.

Strands. The next level of interpretation involved the identification of strands and the analysis of the appearance of these phrases within the interviews. In the case of this research, a strand is defined as a statement that appears almost verbatim, in a number of interviews. Variations may occur in the wording, (for example, "I had fun", "it was fun", "this was fun"), but the concept remains identical in meaning. The strand is data-driven and without researcher interpretation. There is no analysis required, since all interview candidates reiterate this statement on their own.

With the interviews open in a Word document, the researcher selected the individual strands which had been identified, and copied them directly into an Excel document. Each unique strand was placed into its own cell. Strands which appeared multiple times in a single interview, or multiple times across interviews, were placed together in this same cell, separated out by quotation marks. By organizing them in this fashion, the researcher was able to see the number of times that a particular strand appeared. During the coding of the transcripts to the Excel documents, several strands began to appear regularly in the data, within and across the majority of interviews.

One common outlier, who did not mention most of the strand characteristics, was John, who was exceptionally shy and whose answers needed to be prompted. For example,

John did not mention that he enjoyed working in groups, likely because as an exceptionally shy youth, group work was very stressful for him.

Following the investigation into strands, the first level of analysis was undertaken. The first worksheet in the Excel document was simply entitled "Raw Data". It encompassed each and every quote from the interviews. Selections were copied directly from the transcripts and placed into this organizational structure. By doing this, it was possible to lay out the information in "chunks" (Rossman & Rallis, 1998, p. 17) as well as easily identify which students had not mentioned the theme at all. Individual strands of information which appeared in various interviews were also identified at this point.

Themes. The organization of these statements into groupings of similar thought required a level of abstraction by this researcher, with connection between ideas being made. Unlike strands, where the statements were identical in thought and meaning, the clustering of similar ideas into categories or themes, meant that meaning was being constructed by the researcher. From the Raw Data worksheet, the quotes, row by row, were reorganized into a structure that made sound, organizational sense. For instance, a row involving the concept of teacher-impact on student enjoyment included a variety of statements: "they have to be nice" (Jean, January, 2012), "the teacher was good and so then it was just like... fun to be in here" (Tamara, January, 2012), "I think teachers really affect it [enjoying a class]. If it's a nice teacher" (Allen, January, 2012), "the work and the teachers and just how the class is presented [affect if I enjoy it]" (John, January, 2012). While phrased in a variety of ways, there are links in perception and thought.

In the case of this research, a theme is defined as a subject of discourse which encompasses a unifying idea. It is the root of a variety of statements; the starting point of

similar thoughts. During the process of separating the data into chunks of similar thought, themes began to emerge. These appeared first in the groupings of like data. As the analysis continued, they were organized in a way that allowed a broader picture of the student experience to appear. Like the first, rough concepts from the comparison of two interviews, threads of thought and variations on similar ideas were organized in Excel worksheets, with a new worksheet created for each of the eleven themes identified during the coding process. In this way, the degree of saturation was ascertained.

Saturation. There are two interpretations of saturation used in this study. One involves conducting interviews with new participants until no new themes appear. In this study, this was achieved for the eight interviews. The second version of saturation used involves identifying which themes appear across a specified number of interviews so that a common theme could be determined and affirmed. Given the broad spectrum of students selected for the interviews, six out of eight interviews was defined as reaching saturation in this sense. All themes reached this level in this study.

Meta-themes. With the organization of themes and strands into the worksheets completed, broader concepts, which reappeared more than once in the eleven themes were identified as meta-themes. These meta-themes were larger concepts taken from the themes directly (rather than the individual statements), and involved an increasing amount of researcher interpretation. Links were made between thematic structure as connections between the existing themes and their groupings were developed. The connection of ideas and a model of their interconnectedness were included in the meta-theme identification process.

Through this process, the relationships among major and minor themes were identified and a visual structure of the process created, illustrating the relationships between student experiences, engagement, and the classroom structure. These meta-themes, and the thematic structure that precedes them, provide the richest explanation of student experience, by linking the eight interviews and the concepts in each.

Discussion of Primary Results: Strands and Themes

Strands of Student Perceptions. These individual statements, while much narrower than the themes that emerged from the broad analysis of the interviews, nevertheless provide an interesting point with which to begin the discussion. For each of the strands, I've noted the number of times this specific statement emerged in the eight interviews, how many students included this strand in their interviews and those that didn't. All strands were manifest by six or more of the participants indicating common saturation across the group.

1. Strand 1: *Students said they had fun in the course and enjoyed being in the class.* In the eight interviews, this strand was noted 22 separate times by six separate participants. Britney and John did not mention this strand.

2. Strand 2: *The students enjoyed the process of designing and creating their own final project for the video creation project.* In the eight interviews, this strand was noted 13 separate times by participants. Tamara and Hank did not mention this strand.

3. Strand 3: *The students noted that they were given creative freedom in the class and projects.* In the eight interviews, this strand was noted 11 separate times by six participants; John and Hank did not.

4. Strand 4: *The student's enjoyment was positively affected by working in a group setting.* In the eight interviews, this strand was noted 10 separate times by six participants; John and Mike did not.

5. Strand 5: *Students noted that the class involved interaction between students and the teacher.* In the eight interviews, this strand was noted 10 separate times by six participants; John and Hank did not.

6. Strand 6: *The students believed they had a positive relationship with the teacher.* In the eight interviews, this strand was noted nine separate times by all eight participants.

7. Strand 7: *Students noted that the teacher was nice.* In the eight interviews, this strand was noted eight separate times by six participants; Candice and Britney did not.

8. Strand 8: *The students said they felt satisfaction after learning how to use the video-creation program.* In the eight interviews, this strand was noted eight separate times by six participants; Allen and Mike did not.

While each of these strands provides insight into student perceptions, the repetition of the statements is also telling. One interesting note is strand 4 which stated that students *"had fun in the course and enjoyed being in the class"* was repeated 22 separate times by the interview participants. It suggests a classroom where a positive climate was an important aspect. No matter the levels of the engagement demonstrated by the students, each of them included this statement as part of their interview, often more than once.

The remaining seven strands listed above were also connected to the broader themes determined from the student responses. The number of repetitions ranged from 10

to 13, suggesting similar affirmation levels for those strands. From them, the researcher made the first thematic connections between the interviews, looking at the broader context regarding the video-creation unit and student engagement in the classroom.

Emergent Themes. The transition from strands to themes was the first level of interpretation. In it, the researcher looked through the Excel document with the various strands, noting which of them had appeared more than once, both within the same interview and with other interviewees. The most similar phrases were organized in the same spreadsheet of the table, whereas the most dissimilar phrases were placed in other spreadsheets of the table. Through this crude process, the first connections between the various student interviews could be made. Like ideas were then 'clumped' according to underlying concepts inherent within the student phrases. Through this process, broad concepts of thoughts emerged. With the inclusion of each new interview's data, the first underlying themes began to emerge.

Interpretation started with the typical interview candidates, and moved toward the more unique or atypical interviewees. During this process, the interviews with Tamara (Appendix H) and Jean (Appendix I) were selected as the more typical responses. Their complete transcripts, along with the emerging concepts in the marginalia, were read in sequence, with similarities between the two interviews identified as they emerged. In this process, the first steps were made in the understanding and conceptualizing engagement in student terms.

For these two students, Tamara and Jean, six main themes were readily apparent. These were originally identified as:

Positive Experiences of the Instructional Approach;

The Effect of Learning and Student Experiences;

Personal Challenges during the Project;

Positive Affect of the Video Project;

Classroom Environment; and

Instruction during the Video Project.

With these first rough descriptors as a guide, the next six interviews and marginalia were reread, using the same process of comparison and review. The initial themes broadened under this second level of analysis, and in some cases, the original descriptions were divided into two separate subthemes. Using the process of theoretical memos and marginalia, all eight interviews were reviewed and reread and theoretical coding notes made, until all themes were characterized. These themes were the central student notions about engagement, around which all other discussion evolved resulting in eleven distinct themes.

These eleven categories provided the first skeletal view into student perceptions. From this, a thematic structure of experiences with student engagement in the classroom was developed. An open coding system of categories was created with each of the newly-identified themes placed into a organizational chart. The columns were identified by student. (For example, Column A were all quotes from Candice, Column B were all quotes by Britney.) The rows were identified by like ideas. In the situation where many students used almost exactly the same terminology, that row was flagged as a potential thematic strand.

Analysis of the interview data showed a number of themes and patterns which were consistent among the various student interviewees. The most general of these concepts

were the themes, items which appeared in various phrasing, in each of the eight interviews, as seen in Table 8. (All of these were saturated, though two of them were at the 75% level rather than 100%: themes 4 and 5. In each case, John did not include this theme in his discussion, though he did not offer any contradictory comments either. See Table 8.) In many cases, specific phrases consistent with this theme came up on numerous, separate occasions. The number of times the theme was mentioned within the eight interviews is also listed in Table 8. A complete list of student quotes, organized by theme, is located in the Theme Anthologies (Appendix P).

Table 8

Themes within the Interviews.

Theme and Saturation	Descriptor	Number of Mentions
Theme 1: Complete Saturation, 100%	Classroom Environment	46
Theme 2: Complete Saturation, 100%	Student-Teacher Relationships within the Classroom	38
Theme 3: Complete Saturation, 100%	Teacher Student Affect	30
Theme 4: Saturation, 75%	Peer Support and Class Interactions	29
Theme 5: Saturation, 75%	Peer Affect	20
Theme 6: Complete Saturation, 100%	Graduated Structure for Independent Learning and Instruction	132
Theme 7: Complete Saturation, 100%	Student Freedom and Choice	62
Theme 8: Complete Saturation, 100%	Supported Student-Centered Learning Independent Inquiry	115
Theme 9: Complete Saturation, 100%	Student-centric Coping and Thriving Methods	31
Theme 10: Complete Saturation, 100%	Personal Challenges during the Video Project	53
Theme 11: Complete Saturation, 100%	Positive Affective Impact of Video	80

While each of these themes has a different focus represented by its title, there are

connections between the various themes which represent their interrelatedness and the

meshing of thought and perception. None of them are mutually exclusive. This interconnectedness provides an understanding of the interrelationships among themes and leads to meta-themes. In the subsequent section, an argument will be made for the organizational structure of the themes (numbering 1 through 11), connections defined between the themes, and a visual model of the thematic structure presented.

Theme 1: Classroom Environment. The theme of *Classroom Environment* emerged in each of the interviews. It is one of the foundational structures of the student experience for a variety of reasons. First, the experience of the classroom is the very first perception of the class as a whole. When students first come into the New Media classroom, they are confronted with an environment that is very different from a traditional classroom model. The structures within the classroom: discussion space, work areas, computers and couches; all play a role in how every other interaction in the classroom will occur. Without the environment of the classroom, the learning within it would be fundamentally different

The *Classroom Environment* theme showed saturation, as all of the students discussed it during their interviews. The classroom was seen as a unique place within the school and the structure of the different areas in the room were seen as important to student learning. Different elements of the layout, such as the discussion space or the table-work area were mentioned as being beneficial. One student noted that she was able to focus because she could go to "an isolated place and go sit down and view what [I] did" (Candice, January, 2012). Other students mentioned that the physical size of the room, which was twice the size of a standard classroom, had positive benefits. "It was a big enough space for everybody to uh... get everything that they needed to be[sic] done" (Jean,

January, 2012) and "you can go anywhere and you can just think about it and stuff. Like even if you can research something about it and like it'll be better and stuff" (Tamara, January, 2012).

Students saw the classroom space as an important part of their class experience. Within the New Media room, student digital artwork was prominently displayed, and sample projects filled the walls. (See Appendix O for images of the flexible spaces in the classroom.) Students mentioned that they "liked how the room was decorated if it's dull… you're just bored" (Mike, January, 2012). The unique physical structure, with the flexible spaces for students to work, was mentioned as being important to maintaining focus on long term projects. "There's the computers and then there's the couches where you can think and just, like, work on it in your head and then you can go back to your computer" (Candice, January, 2012).

Not all students, however, found the larger space, with its unstructured work areas to be positive. The classroom had thirty students, and that meant it was "a battle to get to a computer every time" (Allen, January, 2012). One student noted that "sometimes it's just too noisy and you can't really get your work done" (Hank, January, 2012). The challenges of functioning in a large class, even with plenty of working area, negatively impacted some student perceptions of the course.

Based on this data, the *Classroom Environment* perceived by the students is one where there are multiple spaces in the room, providing the students in the classroom with a flexible workspace. The classroom is brightly decorated, and exudes a warm atmosphere, though the noise levels, and numbers of students had a negative impact on certain students' experiences.

Theme 2: Student-Teacher Relationships within the Classroom. The theme of
Student-Teacher Relationships within the Classroom emerged in each of the interviews.
The development of comfort and excitement about the space and everything that can be
created there, must have some force to initiate it. The student-teacher relationship is this
force. By working together and developing an interpersonal relationship, the generation of
excitement and enthusiasm with trust and connection begins.

The theme of *Student-Teacher Relationships within the Classroom* showed
saturation, since all of the students, to greater or lesser degrees, mentioned the importance
of this aspect of the course experience in their discussions, and the difficulties if it didn't
occur. The strong sense of student-teacher relationships and the impact it had on students'
experiences in the course was very evident. The sentiment that "they have to, like, interact
with you" (Jean, January, 2012) was repeated many times showing that student-
interviewees were very aware of the importance of positive student-teacher interaction and
its impact on their learning. Most telling was the suggestion that there needed to be a
continuing dialogue between the teacher and student throughout the learning process so
that both "the student and the teacher [were] being engaged in the class" (Candice, January,
2012). One student noted, "[Teaching doesn't work] when teachers put something on the
board and say teach yourself. They're not going to say that but they say 'Okay, do the next
questions' but you've got to teach yourself" (Allen, January, 2012). This theme was
reiterated by others who expressed frustration when provided with minimal discussion or
explanation. As one explained, the expectation of many classroom teachers was to "do it
yourself" (Hank, January, 2012). The instructor was described as being deeply involved
with facilitation, balancing support help, not 'spoon-feeding' instruction, while moving

toward independent learning. One interviewee explained that "if they try to like, connect with their students, I think it's better than just like, saying the work and then just letting them do it by themselves... they got to help them" (Tamara, January, 2012). Another noted a willingness to be involved in students' learning. "Some teachers just tell you what you need to do and that's the way they teach, but I prefer a teacher who, like, will actually get involved with the class and stuff" (Britney, January, 2012).

Based on this data, *Student-Teacher Relationships within the Classroom* is one where the teacher is deeply involved in the student learning. As one student described the process, it involves taking both student and teacher approaches and "kind of mixing them together" (Candice, January, 2012).

Theme 3: Teacher Student Affect. The theme of *Teacher-Student Affect* with students showed saturation since it features in all student interviews. This theme evolves from *Theme 2: Student-teacher Relationships within the Classroom*, since it creates a positive emotional connection between the students and their instructor, and this relationship is part of the larger classroom climate. As one student described it, the teacher must "give off a positive environment" (Tamara, January, 2012). Through a supportive affective climate, the teacher is able to facilitate a positive mindset for learning.

Many of the discussions regarding *Teacher Student Affect* were very similar in theme and two main points emerged from the dialogue. The first was in regards to the teacher's personality. Many students described this as being "a nice teacher" (Allen, January, 2012). What this entailed was described in a variety of ways. One student described the forms of teacher to student interaction as "the honest approaches" (John, January, 2012) while another noted, "if the teacher is upbeat like you are then that makes it

a lot more fun or if the teacher's just kind of boring and explains it, it's not really exciting" (Candice, January, 2012). The consensus seemed to revolve around the notion of honesty and willingness to connect with students on a personal level. As Allen remarked, "you're really positive all the time".

Another aspect of the *Teacher-Student Affect* involved the particular way of interacting with students while in the process of instruction. "If I sit down with my teacher and I can like talk to them about something that I'm not... all clear on. That usually helps me work things out" (Britney, January, 2012). Other students mentioned that teachers who attempted to "connect with their students… [were] better than just like, saying the work and then just letting them do it by themselves... they got to help them" (Tamara, January, 2012). The close, personal relationship developed during the course of instruction was mentioned as being an important part of the student's affective response to the class. Negative interaction was seen as times when "the teachers [is] just always on your case or something" (Allen, January, 2012) whereas positive interaction occurred when "the teacher was good and so then it was just like... fun to be in here" (Tamara, January, 2012). Empathy and understanding were described in several interviews. As one student explained, teachers "have to like, interact with you, like be on a level like an understanding level and understand what you're going through if you're going through hard times and everything" (Jean, January, 2012).

Based on this data, the theme of *Teacher-Student Affect* shows that student-teacher relationships are cyclically built on, and result in, trust and understanding through personal interactions during instruction. The teacher's communication with students is positive and affirming, and respects the students' personal background and experiences.

Theme 4: Peer Support and Class Interactions. Both *Peer Support and Class Interactions* and *Peer Affect* (Theme 5) have the potential to enthuse students and push them out of the one-student, one-project paradigm that exists in many classrooms. *Peer Support and Class Interactions* had saturation since seven of the eight students mentioned this theme. The exceptionally withdrawn student, John, however, was the exception to the rest of the group.

The group element of the course was clearly important for many students. The teacher had "set us out in our groups" (Jean, January, 2012), thus avoiding the issues that often plague student-selected groups. Despite challenges, even the least engaged students mentioned the peer relations in the class. Mike explained, "[I got] engaged with the students and working with other kids too" (Mike, January, 2012). Some noted, "I really like class discussions" (Britney, January, 2012), while others were more specific to the actual project. "I'd rather be doing it with people than just all on my own" (Tamara, January, 2012). Overall, the students interviewed felt the group work experience had been beneficial. The main reason for this was interpersonal relationships developed by students in the class. Some students talked about how having friends in the class increased their enjoyment. "You can talk to them at lunchtime, or break, or in the class, if you have them" (Allen, January, 2012). Other students noted that they were engaged by having their "friends and sitting beside them kept me going cause if I got like bored or... it'd keep me going" (Allen, January, 2012). Several discussed how working with friends improved their ability to complete assignments, saying "if you have friends in the class it helps" (Jean, January, 2012).

Not all students in the interview group saw the peer interactions as solely positive, however; some saw it as having both positive and negative aspects (Allen, January, 2012). In discussing the group work, some noted the challenges of working together. "[The group] can do it one way and then you have another way and they just don't like that" (Candice, January, 2012).

Based on this data, the notion of *Peer Support and Class Interactions* represents the emotional and academic connections between the students in the classroom, which, when they work well, function as a support structure for student success.

Theme 5: Peer Affect. The theme of *Peer Affect* reached saturation with seven out of eight students identifying it as important. As with theme 4, however, the exceptionally withdrawn student, John was the exception to the rest of the group.

Of the students that commented on the peer affective relationships, many mentioned the positive emotions experienced by having friendships with other students in the class. As one explained, "if I have my friends… it makes the day easier" (Hank, January, 2012). Others were more specific in what made the relationship a positive element for them. In regards to the classwork, one student mentioned "we had the four people in our group so we all contributed" (Jean, January, 2012). This wasn't a unanimous feeling, however, as Britney stated that peer relationships also hindered her. "If your groups are chosen for you sometimes you end up with people who won't work and that's hard to do" (Britney, January, 2012). Other students echoed this concern about the positive and negative element of working with peers in the classroom. It seemed to depend largely on "which group members are in your group" (Hank, January, 2012).

Overall, there was a positive reaction to the student-student relationships which developed in the classroom. Several mentioned how having this type of connection with other students was particularly beneficial to their outlook on the class itself. Many felt "if you have friends in the class, then you'll enjoy it more" (Tamara, January, 2012).

Based on this data, the theme of *Peer Affect* describes the unique connections that develop, student to student, within the classroom setting. These connections can have both positive and negative effects, impacting the emotions of the students involved.

Theme 6: Graduated Structure for Independent Learning and Instruction. Themes 6 through 8 are all part of the formative facilitating structure in the classroom. *Theme 6: Graduated Structure for Independent Learning and Instruction, Theme 7: Student Freedom and Choice,* and *Theme 8: Supported Student-Centered Learning Independent Inquiry* provide a structure which focuses and channels the student energy, excitement and motivation generated by themes two, three, four, and five into productive learning. It contains and directs student thinking and behaviour rather than it becoming a free for all or chaotic classroom. The classroom has a clear number of parameters, and an instructional methodology that supports students in construction of knowledge, while still giving them freedom and choice. They can still work in their own way, on their own terms, but their success is supported by the structures of the learning environment and the classroom set-up. Positive student enthusiasm and good peer emotions are both affirming and support engagement, but at the far end of the spectrum, this can result in a classroom of chaos. They generate the positive reactions and interconnections, but require balance. The challenge of this is that both of these themes also have the potential to be disruptive to learning.

Although the students used different terms to describe it, the theme of *Graduated Structuring for Independent Learning and Instruction* showed saturation, appearing in each of the interviews. The interviewees had clearly become conscious of the various learning processes going on in the classroom. The student-centeredness of the instruction was key. Students described how the class was given "an example before, and if you need help, you'd still help" (Allen, January, 2012). Detailed instructions which founded the basis of the smaller, scaffolded projects were mentioned as particularly important to their success. "You explained everything to exactly how you wanted it so we knew what we had to do and we knew how to accomplish it" (Jean, January, 2012). Other students noted that the instruction involved "showing them how to do it one way and then the student doing it one way and then... adapting it" (Candice, January, 2012).

Throughout the interviews, the concept of scaffolded learning, where students were given smaller projects and assistance, in order to increase their abilities, was described in a positive light. One student noted, "yeah, that [the smaller daily activities] helped a lot cause you get to learn how to do things" (Candice, January, 2012). Students were aware that these scaffolded assignments were "leading up to the major thing" (Tamara, January, 2012). The inclusion of daily, scaffolded assignments was also important to student success. "[It helped] having like smaller things and then going bigger and bigger which that helped a lot" (Jean, January, 2012). This was echoed by others who noted how that particular approach assisted them in completing the final project because it "was easier than just jumping us into a bigger assignment" (Jean, January, 2012). The interviewees also mentioned the importance of being provided with teacher support as they worked through

the individual challenges of the scaffolded assignments and major project. "You'd show us and then you'd make us do it again, so that we understood it" (Jean, January, 2012).

Based on this data, this theme represents an instructional methodology which develops student skills through graduated challenges which facilitate learning and creativity. This graduated learning structure supports students through the development of a foundation of core skills, students are then able to use these proficiencies while developing their own student-generated final project. These final projects are shared amongst peers through presentation and improved through an iterative process of discussion and critique. (Further discussion of this process is located in Meta-theme 3: Accelerated Lift).

Theme 7: Student Freedom and Choice. The theme of *Student Freedom and Choice* appeared in each of the student interviews, showing saturation. There was a strong expression of the project's importance to the student's experience in the course. Though expressed in a variety of ways, the organizational aspects of the video project, and the way it was presented to students was also a key point in this theme. Comparing the student-centered instructional methodology used in the video-creation project to a traditional digital project, where there was only one correct option, students felt positive about their ability to choose. As one explained, if they only had one choice, then"[students] would just slack off. They won't even care" (Hank, January, 2012). On a whole, the interviewees responded enthusiastically to the classroom instruction and the option to choose their own approach to the video project. Students appreciated the option to select from a variety of choices in order to "pick the ones we're more interested in" (Tamara, January, 2012).

All students in the class were required to create a final video project, but the topic and the process of completion was self-generated and unique. "You saw in your mind how

you wanted to have it so you could develop it that way" (Jean, January, 2012). Students discussed how they were given many alternatives. "I like how you gave us the options like... then we get to pick [from those]" (Allen, January, 2012). The freedom to choose one's own topic, and develop the project was seen positively. As one student described, "you gave us lots of space to do what we wanted to [during the final project]" (Tamara, January, 2012).

The duration of the intense, student focused project was seen in a positive light. One student mentioned having "time to think" (John, January, 2012). Though students described this process in different terms, the culmination of the long-term, iterative process emerged in all interviews. As one student described it, the final part of the video was "presenting it [to the class] and just making the entire thing" (John, January, 2012). At this point, even the least engaged student had remarked that, by the end, he "like[d] doing it free spirit way" (Mike, January, 2012). The students responded positively to the video creation project was taught, and noted that "it was a lot of fun to uh... like to go beyond what you're used to" (Jean, January, 2012).

For some students, their discussion centered on the particular forms of instruction in the class. As one explained, "I learn better hands on than anything else like that's the one thing that if I can do then it's... it's good" (Jean, January, 2012). Some interviewees were more general in their comments regarding the choices provided in the final video project, and how that allowed them to make their own decisions regarding it. "You gave us lots of freedom but you were still like, helped us to stay on task" (Tamara, January, 2012). This positive attitude about the creative choice given to students appeared in many interviews.

Another aspect that appeared in this theme was the project's organization and the impact it had on their final video. Several noted that they had "an option of doing fun, challenging things" (Jean, January, 2012) and that they "[Enjoyed] not doing… what someone told me to do. Just make your own creation" (Mike, January, 2012). The project's instruction was mentioned by several students who explained that "you gave us a bunch of options and you could do it your way but on your idea of a topic" (Candice, January, 2012).

One key idea that emerged in the interviews was that students saw this choice as providing them with the push to go beyond the minimum. As one explained, "It was good to have like a selection of like, your final project… Having the choice is really[sic] it makes it easier to work" (Allen, January, 2012). The students were also aware of how they might have been negatively impacted by structuring the project to have a single correct outcome. "[One choice] that wouldn't really be that fun cause …I can't have all the freedom to do the stuff [I wanted]" (John, January, 2012).

There were concerns expressed by students as well. Primarily these revolved around the need to keep up with the structure and organization of the class. Since the skills were being developed day by day, students who fell behind found themselves out of depth with the rest of the class. "You had those daily assignments so that, like we were learning new things every day so that you had to keep up so that you could put all of it into your work. So if you missed something then your work won't be as good kind of thing" (Tamara, January, 2012).

Based on this data, the theme of *Student Freedom and Choice* involves a project where students are provided with a multitude of possibilities and exemplars, as they develop skills through small daily projects. As the end of the unit nears, instruction

switches to the creation of a final video project. Students work collaboratively to generate ideas to be used on an individual project, then complete this project using a process of independent inquiry.

Theme 8: Supported Student-Centered Learning Independent Inquiry. The theme of *Supported Student-Centered Learning Independent Inquiry* showed saturation as it appeared in all of the interviews. For many students this theme had to do with the way that they learned, and the support they were given. Freedom of expression (often self-defined as "creativity" or "freedom") was important for many. Several students noted that focussing on their interests meant that they were given "more possibilities of how to do it" (Candice, January, 2012). For others, it was the process of learning basic skills. "Going into here… I had like no knowledge whatsoever and I was worried that I wouldn't be able to do it" (Britney, January, 2012). Some students noted the benefits of one-on-one interaction from the teacher. "If I'm actually verbally speaking to someone …I remember it better" (Britney, January, 2012). While others mentioned specific instructional practices that assisted them. "You did a good job getting the students involved" (Tamara, January, 2012) and "we could even come up with our own projects, cause you gave us lots of freedom which was good" (Tamara, January, 2012). Other interviewees were more general in their description of supported student-centered learning and explained their enjoyment was "based on personal preference on[sic] what you like doing" (Allen, January, 2012).

One thread of discussion that connected many student discussions of independent inquiry and student-centered learning was the support system that the classroom teacher provided. "If we had a [question]... if we were stuck on one thing then you'd show us but you wouldn't do it for us" (Jean, January, 2012). For many students, the interactive element

of teacher and student working together was key to their success. Some noted that it was important that "the teacher's not just talking to them and telling them how to do stuff" (Candice, January, 2012). Tamara noted that she liked to "see examples and then you get an idea and you can come up with your own like working off of that" (Tamara, January, 2012). Throughout the interviews, the supportive role of the teacher in facilitating the classroom interactions was evident. As Allen described, "if you need help, you'd still help, you wouldn't say 'oh go look at the example or something'. It's kind of learning yourself, and yet if you need help, it's fine" (Allen, January, 2012).

Another theme which emerged in the discussion of teacher-supported student-centered learning was the freedom of expression that student-generated projects allowed. Many students described how they liked "to be more creative with it and think outside the box and think of something that hasn't already been done" (Britney, January, 2012). This allowed them more control of their projects, and students' were able to determine the final outcome themselves. "You can like add your style to things like when you're designing things" (Jean, January, 2012).

The learning process of inquiry was also described in detail by the interviewees. The process was not always easy, and several students noted that they were initially concerned by both the software programs and the challenges of the video project. "[We had] to come up with this really big idea of how to put it all together and edit it and make it like a good project... it was really, really elaborate" (Candice, January, 2012). Through the development of skills through the larger student-focused projects, the individual students gained an understanding of video creation. "I got to learn a lot about new programs and uh... how you can use them" (Hank, January, 2012). Ultimately, this allowed them to be

able to apply these newly-developed skills to their video project. "I really liked working within Photoshop and Premiere. I think that was what was really exciting for me" Britney explained, "when we actually got working, you know? It was really cool" (Britney, January, 2012).

Based on this data, the theme of *Supported Student-Centered Learning Independent Inquiry* is an approach where students develop a knowledge base through a process of inquiry and through the development of a large student-generated project. The student-centered instruction puts the teacher into the role of facilitator, rather than bearer of knowledge. Students themselves create their own understanding of the processes and demonstrate these skills through the creation of an independently-generated final project.

Theme 9: Student-centric Coping and Thriving Methods. The theme of *Student-centric Coping and Thriving Methods* was one which appeared in every student's interview. By learning to cope with challenges, and thrive in the student-centered learning classroom, they are able to take their learning beyond the minimum, challenging themselves to ever greater heights.

The first student-centric coping mechanism to emerge was to do with working alongside friends. Nearly every interviewee noted that having friends in the class was helpful to them as those friends "can help you out" (Hank, January, 2012). Others noted that they enjoyed "working with… friends" (Mike, January, 2012). It's interesting that some students were aware that this method of coping had its pitfalls too. As one explained, "if you can get a computer beside a friend, they can help you or make it go worse [laughs]" (Allen, January, 2012).

While most students saw the presence of their friends in a positive light, others were aware that this adaptation also posed risks. Given this, there were other methods students used. As the classroom had two AV suites available for student use, students had the choice to work in a smaller room, separate from the class. Candice noted that she found it improved her focus "being in an isolated place [where she could] …go sit down and view" what she'd done (Candice, January, 2012). Other students opted to use the discussion space, bringing laptops and working while sitting on the couch. As another student notes, "sitting on something comfortable" (Mike, January, 2012) helped him stay on track, as did "listening to music while I go through it all" (Mike, January, 2012).

When it came to the large video project, students expressed similar ways of adapting to the challenges of the project. One explained, "if I do like a chunk, a big chunk…then I'll... take a little break for like five minutes and just take a rest so it's not like you're so bored by the end of it" (Britney, January, 2012). Still others worked on different parts of the project at different times in order to maintain their enthusiasm. "I would take pieces that I really liked and then I would work on that. And then I would go on the pieces that I didn't like and then I would go back to pieces that I did like" (Candice, January, 2012). Others interspersed their work time with small, self-appointed break times where they could "let your brain go" (Tamara, January, 2012).

Based on this data, the theme of *Student-centric Coping and Thriving Methods* is characterized by a number of adaptations and approaches which varied greatly across different students. Through these individual adaptations, students found ways to maintain focus, meet challenges, and solve problems during the class. The use of personal listening devices, laptops, AV suites, and the discussion space were all ways various students were

able to manage the expectations of the course. Peer support was also noted as a particularly effective coping mechanism, though it could cause issues as well.

Theme 10: Personal Challenges during the Video Project. The theme of *Personal Challenges during the Video Project* showed saturation in all of the interviews. In the case of this study, the level of personal challenge experienced by students differed, however all of them noted this aspect in their discussion.

One of the most repeated challenges was the detailed work required by the project. Several students talked about how challenging it was "once it was all done and having to go and make sure that everything was perfect" (Britney, January, 2012). Others found the high levels of detail required by the project difficult to manage. "It was so tiring to keep going over and over and over and over" (Jean, January, 2012). This was reiterated by other students who said that "the fiddling [was a challenge]. The very detailed stuff" (Allen, January, 2012).

For some students, the project itself brought with it a degree of unease due to the newness of the approach, and the complexity of what they were creating. "I thought it was really hard. Cause you want it to be perfect but you can't always get it to be perfect and then you would focus so hard and then you would forget which stuff... what you did" (Candice, January, 2012). Mike, in particular, noted that "I didn't want to do it [my first year]; too much pressure when at first you're doing it" (Mike, January, 2012). As Tamara explained, "If you're really confused then you're not going to have any fun" (Tamara, January, 2012). This point was key to the success (or failure) of many students: their ability to truly understand the parameters of the project, while still generating the video and the topic oneself.

Unlike traditional projects, where there was one correct outcome, the video project, by its nature, required students to step away from the standard expectations, and this itself was an issue. Allen noted that compared to a class where everyone produced the same product, that the video project was *more* difficult.

> [If you only had one choice...] It'd be different... I think it'd be easier 'cause everyone's doing a kinetic type so you just choose a song, do your own thing… Be easier, if you seen someone else doing words, you could ask them how it worked… you could go running around to see what they're doing, put that into yours and create your own ideas (Allen, January, 2012).

Other students were less certain that this would be a good choice. Candice argued that in a traditional classroom, with only one project choice, "you might not get the same thing that you need to so it's difficult" (Candice, January, 2012).

Compounding these issues were external challenges which impacted the project itself. As one student explained, "one time I saved it and it didn't save properly and I lost it and then I had to restart the whole thing" (Tamara, January, 2012). Some of the challenges were personal in nature. Mike, for instance, noted, that "if I don't get enough sleep I won't have fun in class or anything" (Mike, January, 2012). One challenge that seemed to affect all students was focusing despite personal interests. Some students were less skilled with working on the computer, so that aspect of video production was difficult to stay focused on. As Hank explained, "sometimes the tools, I didn't know where they were" (Hank, January, 2012). Still others found preproduction didn't fit their personal interests and skills. "When we were doing the scripts, it was really hard for me to keep going. That's another thing that I struggle with" (Allen, January, 2012). And for others, it was post-production

challenges, and being able to fine-tune their finished product. "Sometimes when like Photoshop or something wasn't working… I just get kind of frustrated with it" (John, January, 2012).

Based on this data, this theme of *Personal Challenges during the Video Project* involves the skill-set of the individual student's technical woes, the challenges of changing from a more conventional teacher-directed approach to self-engaged independent learning (see Chapter Five), as well as their ability to manage the increasing complexities and difficulties of the video project. While the personal challenges differed for each student, they all experienced this phenomenon, and had to find their own ways to cope with these issues during the actual creation of their video project.

Theme 11: Positive Affective Impact of the Video Project. The theme of *Positive Affective Impact of the Video Project* showed saturation, as all of the students noted this element in their classroom experience. In the visual representation of the theme structure, this is the final theme: the destination. At the end of the course, students have completed their project, demonstrated their knowledge, conquered their challenges, and experienced positive affective reactions to the classroom experience. Unlike the other ten themes, this theme focuses around final results and looking back.

Overall, the students had a very positive outlook on their own classroom experiences, though the reasons for their positive affective reactions varied. Students described building skills, and bringing them to fruition. As one explained, "[you] may not enjoy doing it while you're doing it... but like the end you're like 'this is really cool, kind of thing'" (Tamara, January, 2012). For others, it was the process of being engaged in the process of creating their video. "If you are really focused and you're really enjoying what

you're doing, you just have fun with it" (Jean, January, 2012). Others were positively

impacted by the final results of the project. "[The best part was] when it finally all came

together and it like was finished and it was really, really good" (Candice, January, 2012).

Mike, who had taken the course twice, noted that his positive feelings for the class had

improved between the two semesters. "It was a little bit better... lot easier though [the

second time]" (Mike, January, 2012). By and large, the feeling of the interviewees was that

they had enjoyed their time in the class and that it had been "fun". Even John, the outlier of

the group, agreed he'd enjoyed his time there. When asked what things he would change

about the class, John responded with "I can't even think of one" before giving New Media

his highest praise… "This class was okay" (John, January, 2012).

The reasons that students reported finding the finished video creation project "fun"

were as diverse as the students themselves. As Allen explained, "I'm like humorous. I like

to laugh. I like to make people laugh so if that... if that video makes me laugh or makes

other people laugh, then I'm happy" (Allen, January, 2012). Both Allen and Hank found

the set up of the instruction, with the project assignments available in digital form,

positively impacted their experiences. Both mentioned how being able to prepare for the

class, got them excited to attend the next day. "[I enjoy it when] I know the assignment,

what the assignment is from the previous day. So what we're doing the next day" (Allen,

January, 2012). "[I feel good] if I know the assignment… what we're doing the next day"

(Hank, January, 2012). For others, it was more simple. "Basically if it's fun, I like it"

(Mike, January, 2012).

This theme demonstrates the positive affective outcomes of the video project within

a classroom where students feel good about the learning that occurs along the way and in

the finished product at the end. The reasons for this affective reaction are multi-faceted: from pride in learning, to peer associations, to project success, to successfully managing challenges, to the environment and interpersonal reactions.

Discussion of Secondary Results: Meta-themes

 Results in the 'Typical' Classroom. Based on the 11 themes identified in the initial analysis, the researcher was able to develop a structure of three meta-themes related to the interview group as a whole (see Figure 1). These were developed by identifying connections across similar themes and placing them into groups. In the following section, the reasoning behind the choices for clustering, and the supporting connections between each theme will be presented.

 Meta-theme 1: Positive Relationships and Affective Climate. Meta-theme 1 was developed through the connection of five separate themes. These themes were:

 Theme 2: Student Teacher Relationships within the Classroom;

 Theme 3: Teacher Student Affect;

 Theme 4: Peer Support and Class Interactions;

 Theme 5: Peer Affect; and

 Theme 11: Positive Affective Impact of the Video Project.

Each of these themes has to do with the affective domain of student experience. Peer relationships, student-teacher interactions, emotional responses to the project and the affective outcomes of these connections are part of this meta-theme.

 Theme 2: Student Teacher Relationships within the Classroom is included based on the positive climate and personal connections noted by the interviewees. Theme 4: Peer Support and Class Interactions is similar in that it connects the student's emotional

response to his or her peers, both in working together and in participating in the classroom. Theme 3: Teacher Student Affect is specific to the emotional response that the instructor elicits in her students, while Theme 5: Peer Affect, describes the emotional connections between peers. Lastly, Theme 11: Positive Affective Impact of the Video Project relates to the students' feelings of accomplishment and pride in their final video project.

At its most basic level, the five themes are all connected through human emotion. Each of these themes investigates a student's experience with other people the course peers his or her project, suggesting how these interactions and experiences cause an affective response in the student. By merging these separate threads of emotional response, a larger meta-theme, can be identified: Positive Relationships and Affective Climate.

Meta-theme 2: Personalized, Student-centered Supported Independence. Meta-theme 2 was developed through the connection of three themes. These themes were:

Theme 8: Supported Student-Centered Learning Independent Inquiry;

Theme 9: Student-centric Coping and Thriving Methods; and

Theme 10: Personal Challenges during the Video Project.

Each of these themes revolves around the concept of student learning and the challenges that this causes. The way that students cope with the difficulties they experience, the student-centeredness of the classroom instruction, and the adaptations that students make in order to succeed are all part of this.

Theme 10: Personal Challenges during the Video Project has been included because of the connection to instruction and the difficulties encountered by the students as they completed their video project. Theme 9: Student-centric Coping and Thriving Methods connects to the concept of personal challenge as it deals with the various different methods

students use in order to cope with the challenges they encounter as they complete the video project. Theme 8: Supported Student-Centered Learning Independent Inquiry encompasses the larger concepts in the previous two themes: personalized, independent investigation of concepts, and the student-focused instruction.

Each of these themes deals with the challenges and success of a student-generated project. The instructional approach used by the teacher, the challenges students encounter as they engage in the creation of their final projects and the coping mechanisms used by these students in order to succeed shape the larger meta-theme which emerges from it. Given these three themes, the meta-theme can be identified as: personalized, student-centered independence.

Meta-theme 3: Accelerated Lift and Independent Learning. Meta-theme 3 was developed through the connection of three themes. These themes were:

Theme 1: Classroom Environment;

Theme 6: Graduated Structure for Independent Learning and Instruction; and

Theme 7: Student Freedom and Choice.

The three themes, while apparently simple, encompassed the entire complexity of the classroom, the physical environment, and the structure supporting student-centered instruction. By combining these themes together, a larger conceptual model emerges.

In this model of classroom, the teacher plays a constantly changing role, which varied, based on the individual student's needs. At the beginning of the course, the teacher plays two roles. One is the traditional model of classroom instructor wherein direct instruction is provided regarding skill building and assignments. The second role is as a coach, assisting students in a hands-on way as they work through the challenges of the

scaffolded projects. As the course continues and these students develop new skills, the role of the teacher changes to match their needs, shifting into a consultant rather than direct instructor. Since the students no longer require the same degree of help, the instructor becomes a mentor, giving assistance and maintaining the level of challenge through individualization as students create their projects. By the end of the course, the teacher's role has altered yet again as students assume more control of their learning. In this new scenario, the teacher has assumed the role of observer and guide to the learning process. These roles may shift and change (and in some cases return to an earlier role) based on individual needs and based on different students. (Further discussion of the teacher role can be found in Chapter Five.)

The term 'Accelerated Lift' is one that was coined during the course of the research. As a model, it encompasses the larger educational process and educational methodology which must be undertaken when engaged in a student-centered approach to instruction. Like a plane which needs to reach the correct balance of thrust and angle of attack in order to achieve flight, accelerated lift describes the process through which students are able to develop the skills needed for an independent project. It provides the challenge needed for all students at all levels. For the academically challenged students, it provides the security of a solid structure of skills. It does the opposite for students who would otherwise speed through the assignments, providing them with the challenge needed to slow down their completion long enough to truly engage them in a challenging way. In the words of R. Butt, "slow learning is best for fast students" (R. Butt, personal communication, May 9, 2012).

In this instructional approach, students are engaged in an increasingly challenging series of assignments, in order to develop a solid base of knowledge. The methodology

behind accelerated lift is thematically similar to the concepts behind flight, where forward momentum (acceleration) is needed along with the correct wing shape (foil) in order to achieve lift. By including each of the components: teacher instruction (propulsion); graduated scaffolded instruction (acceleration); a supportive facilitating classroom structure and appropriately designed assignments (aerofoil shape); students develop the ability to work independently on student-centered projects, (upward lift achieving flight). Missing any of these elements would create a failure for flight to occur. The three themes which form the foundation of this meta-theme expand on each of these concepts.

Theme 1: Classroom Environment is included as it describes the physical environment of the classroom, and the various workspaces that have been set up around the room. Theme 7: Student Freedom and Choice deals specifically with the way that the student-centered video project was organized and presented to students. The structure surrounding this particular project connects closely with Theme 6: Graduated Structure for Independent Learning and Instruction which deals with the inquiry-based, instructional methodology. In it, the instructional approach used by the teacher scaffolds student learning by using a sequence of increasingly difficult challenges that build a student's skill set. It provides individualized learning experiences for every student, challenging them to work at their capacity, and push beyond the minimum expectations as they are immersed in a process of inquiry-based learning. Clearly, Accelerated Lift and Independent Learning are also necessarily supported by the other two themes which are essential for student's to achieve their personal learning goals. There is a synergistic relationship between the environment, the relationships in the classroom, the instructional methods and the

increasing independence and choice. It is the interconnections between all of these elements which allow for Accelerated Lift and Independent Learning to occur.

From the small, daily assignments, to the group collaboration, to the iterative process of critique, to the physical environment, and the final creation of the video project, the three themes encompass all parts of the educational structure of the classroom. These three themes can be connected by the overarching theme of instruction and the meta-theme emerging from them identified as: *Accelerated Lift and Independent Learning.* Figure 1 provides a visual representation of this process, along with the connections to Meta-Theme 1: *Positive Relationships and Affective Climate*, and Meta-theme 2*: Personalized, Student-centered Supported Independence*.

Theme and Meta-theme Structure

Meta-theme 3: Accelerated Lift and Independent Learning

Theme 6: Graduated Structure for Independent Learning and Instruction

Theme 7: Student Freedom and Choice

Theme 1: Classroom Environment

Theme 11: Positive Affective Impact of the Video Project

Theme 5: Peer Affect

Theme 4: Peer Support and Class Interactions

Theme 3: Teacher Student Affect

Meta-theme 1: Positive Relationships and Affective Outcomes

Theme 2: Student-Teacher Relationships within the Classroom

Theme 8: Supported Student-centered Learning / Independent Inquiry

Theme 9: Student-centric Coping and Thriving Methods

Theme 10: Personal Challenges during the Video Project

Meta-theme 2: Personalized, Student-centered Supported Independence

Pitch attitude

Angle of attack

Flight path angle

Velocity

http://www.ehitpc.com/OnlinePubs/AF_weather_/flight-path/Angle-of-Attack-2_Upset-Recovery-FSO.jpg

Figure 1. Theme and Meta-theme Structure, diagram.

Discussion of Tertiary Results

This section provides a comparison of the quantitative data gathered with the CES questionnaire in the research classroom, to the norms of the scale. Through it, certain statements may be made regarding the experience of students in the research classroom. The size of the research group, however, prevents these statements from being applied to other classrooms. The data from the CES scores provide a snapshot of experience for one group of students, rather than a template for a larger group.

Comparison to the Trickett and Moos Norms. The final comparison of results involves a return to the original interview selection process using the data from the Trickett and Moos Classroom Environment Scale (2002). The results of the research were compared to the norms provided by the Trickett and Moos questionnaire for each of the five CES subscales. These norms were developed using the results of 382 classrooms from a variety of socio-economic groups (Trickett and Moos, 2002, p. 10). The mean number of correct answers (out of ten) were included for each of the questions, and then compared to the norms provided for an average classroom by the CES scoring key. The results for the CES subscales used in this study can be seen in Table 9 and Figure 2.

Table 9

Comparison of Norms, Part 1.

CES Subscale	CES Norm	Classroom Results	Percentage Increase
Subscale 1: Involvement	5.17	8.44	63%
Subscale 6: Order and Organization	5.88	9.07	54%
Subscale 9: Innovation	5.00	7.50	50%
Subscale 3: Teacher Support	6.74	8.25	22%
Subscale 2: Affiliation	6.51	7.14	10%

Note: 'Percentage Increase' pertains to the increase of the research classroom, measured out of a possible 10 points, in comparison to the CES Norm, measured out of a possible 10 points. The resulting percentage shows the amount of increase from the norm.
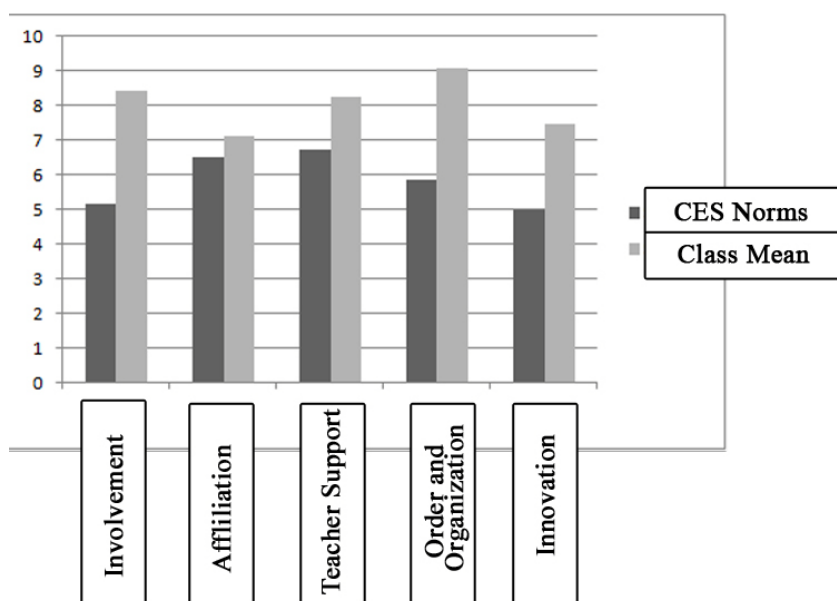
Figure 2. Comparison of Norms, Part 2.

It is notable that all results from the research classroom research were higher than the CES norms. For Involvement, there was a difference of 3.27 points on the CES score, and a standard deviation of 1.5. For Affiliation, there was a difference of 0.63 and a standard deviation of .045. For Teacher support, the difference between the scores was 1.51 and the standard deviation was 1.07. For Order and Organization, there was a difference of 3.19 and a standard deviation of 2.26. Lastly, the scores for Innovation showed a difference of 2.5 and a standard deviation of 1.77. A comparison of the mean scores of the CES norms and classroom research can be seen in Figure 2.

In terms of percentage difference between the CES Norms and this research study, as can be seen in Table 9, in rank order: Involvement was 63% higher, Order and Organization was 54% higher, Innovation was 50% higher, Teacher Support was 22% higher, and Affiliation was 10% higher. Each of these scores is reflective of the approach used in the research classroom. The levels of Involvement reflected a structure that required students to work on intense, collaborative projects in the New Media classroom. The degree of planning required to coordinate these projects was represented by Order and Organization. The Innovation result was determined by both the original, student-generated projects created in the classroom, and the innovative instructional methods. Teacher Support appeared throughout the process of instruction, fluctuating from intense, one-on-one instruction, to a supportive structure, eventually to a very hands-off, mentoring role. Affiliation encompassed the student to student interactions occurring within the classroom. Each of these separate processes were impacted by the instructional methods and approach used in the research classroom.

As both Table 9 and Table 5 demonstrate, the results of the research group are consistently higher than the norms of the CES. There is variation in the degree of difference, but all measured subscales of the CES show that the research classroom scored above the norms of the CES. This offers data which demonstrates that the teaching approach used in this research was perceived as more student-centered than the average classroom by students.

Subsidiary Results 1: CES Scores by Achievement and Gender. Table 10 provides of comparison of the group scores, high and low achievement scores, and combined high and low achievement scores for males, females, and both genders. The detailed analysis of each of these areas is provided below.

Table 10

CES Mean Classroom Scores for Females and Males, with High and Low Achievement.

Academic Reference	Female	Male	Both Female and Male
High Academic	42.8	39.2	46.3
Low Academic	43.3	35.7	38.5
High and Low Academic	43.0	37.9	40.4

The range of CES scores for all students in the research classroom, including those who were not selected for the interviews, was a low of 32 points and a high of 47 points, out of a total of 50 possible points. For highly academic students, both male and female, the range of CES scores were from a low of 32 points and a high of 46 points. For low academic students, both male and female, the range of CES scores was a low of 32 points

and a high of 47 points. For all female students in the research classroom, the CES scores ranged from a low of 38 points to a high of 47 points. For all male students, the range of CES scores was from a low of 32 points to a high of 43 points.

The mean CES score for all students was 40.4 points out of a total of 50. For highly academic students, both male and female, the mean score was 46.3 points. For low academic students, both male and female, the mean was 38.5 points. For all female students in the research classroom, the mean was 43.0 points. For all male students, the mean was 37.9 points. The mean CES score for all low academic students (male and female) was 39.5 points as compared to 46.3 for high academic students, a 17.2% increase from low to high academic students. The mean CES score for all males, both high and low academic, was 37.9 points, as compared to 43.0 points for all females, both high and low academic, a 13.5% increase from males to females in the classroom.

Highly academic students, as a whole, scored higher than their low academic counterparts. There was a 20% increase between low academic students who scored 38.5 points and high academic students who scored 46.3 points.

Summary of Findings

The findings of the qualitative interviews, along with a small amount of quantitative data gathered through the use of the CES questionnaire show a class with higher levels of engagement than the norms of the CES (see Figure 2). From the student responses to the interview questions, a series of 11 themes can be seen.

Theme 1: *Classroom Environment;*

Theme 2: *Student-Teacher Relationships within the Classroom;*

Theme 3: *Teacher Student Affect;*

Theme 4: *Peer Support and Class Interactions;*

Theme 5: *Peer Affect;*

Theme 6: *Graduated Structure for Independent Learning and Instruction;*

Theme 7: *Student Freedom and Choice;*

Theme 8: *Supported Student-Centered Learning Independent Inquiry;*

Theme 9: *Student-centric Coping and Thriving Methods;*

Theme 10: *Personal Challenges during the Video Project; and*

Theme 11: *Positive Affective Impact of the Video Project.*

These themes are clustered into three meta-themes. Meta-theme 1: *Positive Relationships and Affective Climate*, involves positive affective outcomes and relationships. Meta-theme 2: *Personalized, Student-centered Supported Independence*, involves personalized, student-centered independence. Meta-theme 3: *Accelerated Lift and Independent Learning*, involves personalized, student-centered independence and instruction which facilitates accelerated lift. Through the discussion of each of these concepts, an understanding of the student perceptions of a student-centered instructional approach to video creation on levels of engagement can be ascertained.

The eleven themes in this study are reflective of Galinsky's (2010) seven life skills. Though they are described in differing terms, connections can be made for each. Focus and self control (p.12) is similar to the class-appropriate behaviours demonstrated in Theme 4: *Peer Support and Class Interactions,* where students work together in the classroom. Perspective taking (p. 67) involves seeing things from the point of view of others, a skill which connects to Theme 3: *Teacher Student Affect* and Theme 5: *Peer Affect*. Similar to this is communicating (p. 102) which is seen in the behaviours needed to reach Theme 2:

Student-Teacher Relationships within the Classroom. Making connections (p. 157) can also be described by Theme 1: *Classroom Environment* and by Theme 11: *Positive Affective Impact of the Video Project.* In both cases, interconnections are made: in one case with the learning environment, and in the other with the affective element of the video project. Critical thinking (p. 200) is a skill which is seen in Theme 9: *Student-centric Coping and Thriving Methods,* as students adapt and thrive despite setbacks. Taking on challenges (p. 248) is directly connected to Theme 10: *Personal Challenges during the Video Project*. Lastly, self-directed, engaged learning (p. 298) reflects the same concepts as Theme 7: *Student Freedom and Choice,* Theme 8: *Supported Student-Centered Learning Independent Inquiry,* and Theme 6: *Graduated Structure for Independent Learning and Instruction.*

The three meta-themes, by comparison, provide a broad structure in which to organize Galinsky's (2010) seven life skills. Meta-theme 1: *Positive Relationships and Affective Climate* describes perspective taking (p. 67), and communicating (p. 102). Meta-theme 2: *Personalized, Student-centered Supported Independence*, encompasses the same skills as seen in focus and self control (p. 12) and taking on challenges (p. 248). Meta-theme 3: *Accelerated Lift and Independent Learning*, provides insights into making connections (p. 157), critical thinking (p. 200), and self-directed, engaged learning (p. 298). No matter how we look at these themes, the larger connections that occurred during the study are still clear.

First, students had positive affective reactions to the classroom, their peers, and the teacher. Secondly, the process of instruction, interaction with technology, and student inquiry provided positive experiences for students of all abilities. Lastly, the instructional

methodology of accelerated lift was effective in engaging students in their own learning and in reaching their own levels of independently chosen learning projects.

Conclusion

Looked at via the research base explored and identified for this study, one might expect student engagement to contain three separate elements: cognitive, behavioural, and emotional (Appleton et al., 2008) and indeed, each of these elements features strongly in the student responses. The three meta-themes straddled and overlapped the elements identified by Appleton et al. (2008), with concepts from each appearing throughout the various interviews and themes. The results were a complex vision of the New Media classroom as described by the students experiencing the student-centered video creation project. Though divergent, their views carried similar threads as their peers.

Overall, the student interviews portrayed a classroom that was a positive experience for all involved. Students noted that they were highly involved in their own learning, and in that of their peers. "If we were stuck on one thing then you'd show us but you wouldn't do it for us… you'd show us and then you'd make us do it again, so that we understood it" (Jean, January, 2012.) Work was done both individually and collaboratively, with a focus on the eventual creation of a large, student-generated final project. "I think the daily projects especially really helped because they you can kind of like hone those skills and you know what you're doing then. [laughs] Otherwise you're just thrown into it" (Britney, January 2012). The interaction of students with their teacher and with their peers affected student perceptions of the class as a whole. "If I have my friends that can help me and it makes the day easier" (Hank, January, 2012). This iterative process assisted the students in generating their final project. The positive, affective relationships developed between

individuals, the positive classroom climate, the physical space of the classroom, and the

inquiry-based learning which took place were all noted as affecting the students' positive

experiences. "[We had] to come up with this really big idea of how to put it all together and

edit it and make it like a good project... it was really, really elaborate" (Candice, January,

2012)

Some differences to this broad view of the class were identified for some students.

Most notably John was the exception to the rest of the group. His interview was

particularly difficult, as his answers were limited and lacked detail. During his interview,

(see Appendix K), John was prompted twenty-nine times *beyond the fifteen questions,* but

his answers remained minimal. A sample of this type of questioning can be read below:

Teacher: What things affect your enjoyment of a particular project? And why...

why would you enjoy a particular project?

John: Because I might have an interest in it.

Teacher: Anything else that makes you enjoy or not enjoy it?

John: Mmm... no.

Teacher: Anything you might not have been super interested in, but once we got

going, you were like 'oh... okay'?

Student: Yeah, there was stuff there, yeah.

Teacher: Can you give examples of some?

Student: (shakes head and doesn't answer)

(interview with John, January, 2012)

A second exception to the group was Allen, who provided an interesting perspective

on students who found the transition from the traditional classroom into an inquiry-based

instructional methodology particularly difficult (see Appendix N). Allen's discussion touched on many of the concerns which might be experienced by students who are comfortable in the more formal, conventional approach to classroom instruction. When asked about having only one choice, Allen responded, "it'd be easier", since, in this scenario, "you could go running around to see what they're doing, put that into yours and create your own ideas" (Allen, January, 2012). The process of formative assessment was also a challenge. He explained one particular moment of frustration when "we thought we were done but we were below the minimum so we had to keep creating more and more ideas" (Allen, January, 2012). His perception of particular assignments, and the challenges of individualization in regards to achievement, was an interesting contrast to the larger group. "As long as the teacher really um just keeps you on task, to make sure you're not fooling around. That's really all you can do" (Allen, January, 2012). For Allen, even the definition of engagement was telling. There was no mention of interest or passion, nothing about creativity or interests. For him, engagement was simply "being on task working… Doing what you're assigned to do or supposed to do" (Allen, January, 2012).

The group's answers tended to circle around a particular view of the classroom. "It was just like... fun to be in here" (Tamara, January, 2012). "We had a little freedom and space to move so it was like you didn't have to for sure do something on 'this', you could like... use our own creativity in it" (Britney, January, 2012). "We knew what we had to do and we knew how to accomplish it" (Jean, January, 2012). "When you get a lot of choices you probably know what you want to do and you make it to... make it very good. You give your best effort" (Hank, January, 2012). "[Being] focused on my interests helped me keep going (Allen, January, 2012). "[The final project…] That was great. Cause we already

learned everything and now we get to... we get to put everything together and make a big project" (Hank, January, 2012). Throughout the eight interviews, variations on these statements can be seen.

Student perceptions of the classroom were varied, but the three main meta-themes (*1: Positive Relationships and Affective Climate, 2: Personalized, Student-centered Supported Independence and 3: Accelerated Lift and Independent Learning*) formed the foundational base of each interview. Student perceptions of the processes of Accelerated Lift were positive in both academic and affective domains. By taking students through a step-by-step process of learning which provided them with moments of understanding via small, scaffolded assignments, they were eventually able to reach a level where they were capable of independent inquiry. The demonstration of this ability was through the creation of complex, creative video projects which demonstrated the depth of their understanding.

Despite the fact that the sample size of the study is too small to appropriately apply statistical tests of significance to the data, the magnitude and consistency of the trends are evident. Students in the interview groups did perceive their experience to be engaging, though the levels of engagement varied from person to person. Their CES results for the research classroom as a whole were higher than the norms of the CES. Though these quantitative results are not applicable to other classrooms, they do provide evidence supporting the qualitative results from the interviews.

Chapter Five: Interpretation and Discussion

Overview

This study postulates that a teacher can only teach effectively if his or her students are engaged, as without engagement, student learning is hindered no matter how enthusiastic the instructor may be about his or her subject matter. In order to ensure that students remain active participants in their own learning, an educational structure must be established which supports this. According to Appleton et al. (2008), effective approaches will encompass three components of engagement: cognitive, behavioural, and emotional. This should be a synergistic, iterative structure within a positive classroom environment, where social connections are made and student-centered independence is supported. In this study, one such teaching learning approach was used in order to maximize engagement in the New Media classroom. The impact of this student-centered approach on student engagement was explored and the nature of student engagement examined.

In Chapter Four the results of this student-centered approach to video creation on student engagement was assessed through student interviews and the development of themes and meta-themes based on those results. This chapter provides an exploration of the results of the interview group. An interpretation and discussion of these findings is provided, along with the resulting connections which can be made between the particular moments of student learning, and the nature of engagement which ensued. For each of the students involved in the interviews, a detailed analysis of their individual experiences has been undertaken from a teacher's perspective using teacher professional reflections, notes, and anecdotal records of their progress, projects and project evaluations, followed by a discussion of these experiences within the broader spectrum of the larger group. These

accounts of individual student learning experiences during the course will further elucidate the nature of their engagement.

The final section of this chapter will posit the application of Accelerated Lift and the classroom structure which allows it to occur to other classroom situations. The ways in which this could occur will be discussed in detail and exemplars provided. Through the theoretical application of the study's meta-themes to other classes, the broader implications for this type of approach, and the possibility of future research, will be considered in regards to the impact of Accelerated Lift upon varied teaching situations.

The Interview Group

In this section, the results for each of the students involved in the interviews have been summarized. This will begin the analysis with the two students originally selected as the most typical students from the interview group (Tamara, Appendix H, and Jean, Appendix I). From here, results will follow the other interviewees, ending with the most atypical student in the interview group (John, Appendix K). For each of the students involved in the study, the researcher will summarize their particular results in terms of the original research questions, providing explanation regarding their personal experiences within the classroom, their participation throughout the course, and an account of their particular triumphs or failures. Anecdotal evidence from field notes and observations made by the researcher beyond the study's interviews will illustrate the process through which the students engaged in the class work and the video creation unit.

"Tamara": Low Engagement, Low Academic Achievement. Tamara fit the niche of the popular teenage girl. From the first moments when she walked into the New Media class, it was apparent she was there to enjoy herself, and as the class progressed, she was

one of the students whom the researcher most often had to remind to stay on task. Tamara had exceptional social skills, and had many friends in the classroom, chatting with them regularly.

In the first days of the course, the freedom to work at one's own pace was a challenge for Tamara. She seemed to have difficulty managing this independence, often laughing and turning around to talk during class rather than working. Unfortunately, this meant she often found herself off topic, or lost in regards to class directions when she was mid-discussion and the researcher was providing instruction. In other classes, the researcher suspected that this might be one of the reasons for lower achievement.

Tamara's outgoing and gregarious nature was both a disadvantage and a boon to her success. Her easy laughter and quick good humour made her very popular with her peers and she could often be found sitting on the couches in the discussion space talking or texting with friends. She enjoyed checking on friends on facebook, and texting with peers even during class instruction time. In the first week of class the researcher noticed that Tamara was easily distracted by her classmates. She would often begin the small class projects, but not complete them unless prompted. Tamara was also frequently late to class, missing portions of the initial instruction. These absences were excused by her parents. The social elements of the classroom worked in her favour, although missing the instructions at the beginning of class made some of the more challenging assignments difficult.

During those first weeks of New Media, Tamara's off-topic behaviour meant that the researcher had to take extra time to redirect her attention back to the scaffolded assignments, and kept moving her back into the project when her focus drifted. Her interest was in socializing so the researcher encouraged her participation in group projects,

prompting her to be involved in the projects of other students. The researcher also elected to place her in groups where the other students were quieter, and less secure. This assisted in refocusing Tamara's attention without unnecessarily penalizing her for her natural expressive nature. The direct-edited video project, where students were given a selection of classical music and had to create a video telling the story without words, was especially helpful in helping her to make this transition. Tamara was able to 'talk her way through' the project, with the assistance of the teacher-selected group members, finally bringing together a good quality project. This was the important 'first step' in the transition into functioning in the more student-centered classroom setting. Tamara was still able to talk, discuss and process her ideas verbally, but she had the support of group members to ensure she finished her work.

I quickly learned that Tamara responded well to verbal feedback and instruction, and preferred having the researcher tell her what to do, rather than reading through the text-based instructions. Once she understood the directions, she was very willing to attempt the project on her own, working her way through it even if she wasn't sure how to create the effects the project demanded. By the mid-point of the video-instruction unit, she had developed the basic skill set for editing despite any challenges she may have encountered by missing some parts of the full-class instruction. She had also begun seeking help and clarification from the researcher and the other students sitting near to her if she didn't understand what to do.

Tamara really enjoyed the collaborative elements of New Media and excelled in group situations. Her personality was definitely the centre of attention, though she was not necessarily a leader during group projects. She had many friends, and she generated much

of the positive emotional climate of the group. Her outgoing nature meant that Tamara was quick to respond to discussions, an active participant during critiques, and helpful in keeping those peer-to-peer interactions going. Where other students struggled to come up with discussion items, Tamara excelled. As the researcher walked through the classroom observing the 'sharing' moments of the formative assessment discussions and critiques, she would often notice Tamara guiding others into sharing, her laughter and quick smile animating the group's interactions. Her ability to converse effortlessly, even with those she didn't know, brought other quieter students forward. As the course continued, Tamara's unique gift of putting others at ease benefited many other students as they struggled to discuss their video projects, and find ways to improve upon their original creations. The class discussions, formative feedback from peers, and suggestions from the instructor were also helpful, and Tamara was always willing to undertake revisions based on these ideas. Whereas, at the beginning of the course, she quickly tried to complete a project just to be done, by the mid-point, she had begun reviewing and reassessing her work in order to improve it.

As the weeks passed, and the students began working on their self-generated video project, the researcher encouraged Tamara to select a topic that she really enjoyed. It was clear from the small, daily assignments that if intrigued by a project, Tamara stayed focused, but if she wasn't interested, the likelihood she would finish was low. After plenty of discussion with her friends and with the researcher, she selected a kinetic type project where a selection of audio is visually represented through the use of words and images in motion (see Appendix S for samples of student projects).

To complete this project, Tamara selected a piece of audio that included words and began to create a video for it. This required the use of the titling tools, transitions and keyframing effects in order to create a film solely from words and audio. This motion graphics process told the story of the words through the active display of text and imagery. In Tamara's case, she selected a popular song, putting the words together with plenty of special effects. The process for Tamara began with her transferring the existing audio from her computer at home, to school, and then importing the file into the Premiere program. This done, she broke her song into 'pieces' with timeline markers. These markers, along with the *.wav* files, allowed her to 'see' as well as hear where the lyrics appeared. The largest portion of the work was in creating the titles through the use of the titling panel in Premiere. For each word in the song, Tamara placed it in the correct position in the timeline, creating motion through both transitions (special effects) and through the keyframed animation of particular sections of text. The level of artistry required for a project such as this is very time and labour-intensive, but Tamara was determined to see it through to completion. This project was one where the researcher saw things really "click" for Tamara, and her effort reflected a new enthusiasm for completing a project.

Though Tamara needed extra help with the challenges of creating the special effects for her kinetic type, she undertook the assignment with industry and focus, spending extra time during her lunch hour when the transitions and keyframing hadn't worked, and asking for extra help in order to complete it on time. One event the researcher noted was a situation where Tamara lost the audio of her song by accidentally deleting it. She was very frustrated, and near to tears when she told the researcher what had happened. Her concern was that she had positioned all of the titles according to this particular remixed version of

the song, and if she reimported the audio, she'd have to adjust them all. (This would literally mean hundreds of tiny adjustments.) Realizing she was very close to walking away from her work, the researcher assured her that we could go back a step. The researcher advised her to close the project without saving it, then reopen it immediately. When the error message and red screen appeared announcing that the computer couldn't locate the original mp3 file, the researcher talked her through locating the piece of music which had been moved to a new folder in her external drive, thus deleted from her timeline. With the music found and crisis averted, Tamara jumped back into editing, her enthusiasm redoubled.

Tamara responded positively to the one-on-one assistance, and was quick to ask for further tutoring when she found herself having difficulty. In this way, she demonstrated again that she could be (and was) very focused if the project was one that she had selected. With extra reminders about completion, she was very capable and willing to push herself far beyond the minimum. The student-generated project aspect of the classroom worked especially well in her case, and she expressed her enthusiasm with the results. Meeting the challenges of keyframing and creating special effects had reinforced her belief in her own abilities, and in her interview she spoke positively of the video-creation project. Despite the difficulties she encountered, Tamara had found ways to move through the challenges, and thrive despite them.

Overall, Tamara functioned well in the New Media classroom. Her extroverted nature generated much of the positive climate during discussions and she was a benefit to her peers in collaborative assignments. Her marks in New Media, while not exceptional, were well above the marks she had earned in other classes (see Appendix R for the full

rubric). For the portfolio portion of her mark, Tamara completed most, though not all, of

the scaffolded assignments. (The ones she only partially completed were due to coming to

class late and not having time to finish.) For the final project portion of her mark, Tamara

scored well based on the challenge level and skills required to complete the project. Her

Critical Engagement marks improved as the course progressed and she learned to challenge

herself. By the final days of the video creation unit, Tamara had more than proven that she

was able to achieve high levels of effort and detail, and her mark reflected this degree of

persistence, self-reflection, critique, revision, and reworking of her project. More

importantly, however, Tamara felt she'd done very well and the researcher consider this to

be the best measure of her success in the class.

Tamara's CES score was 38 points out of 50. Given Tamara's development of

learning strategies, the nature of her discussion in the interview, and the results of her self-

generated video project, it is clear that while her CES scores show her engagement levels

were significantly lower than other members of the class, she did demonstrate some

important instances of engagement during the New Media class. Tamara's interview results

also demonstrated a positive reaction to the instructional method, despite her relatively low

score. Based on the interview, her perception of her own engagement in the classroom was

positive.

Tamara's connection to each of the three meta-themes manifested itself through her

particular experiences in the course. In Tamara's case, the most clear expression of these

was *Meta-theme 1: Positive Relationships and Affective Climate*, which was evident in all

of her peer-to-peer interactions. By creating much of the positive affect and support of the

peer experience, Tamara engendered this meta-theme through her interactions with other

students, and assisted others in the realization of this meta-theme. *Meta-theme 2: Personalized, Student-centered Supported Independence* was expressed through Tamara's slowly increasing abilities and independence. At the beginning of the course, Tamara found it difficult to stay abreast of the assignments and projects, but over time she learned to manage her own learning style, asking for help when she needed it, and adapting her behaviour to fit the flexible learning environment of the class. This change of learning habits was the biggest hurdle that Tamara overcame in the New Media class. Though she was not a strong, academic student, she still found success through the adaptations she made in order to succeed. *Meta-theme 3: Accelerated Lift and Independent Learning* was demonstrated in Tamara's transition from a dependent, passive learner into an actively engaged participant in her education. The clearest demonstration of this was the creation of her final video project which Tamara undertook with a high degree of attention and artistry. Through this assignment, Tamara demonstrated the skills she had developed over the course, as well as challenged her own learning abilities through self-reflection and revision of the video project. This change demonstrates how the development of Tamara's editing skills, the steady increase of independence and responsibility, and the larger, supportive structure of the classroom environment all combined together to provide a learning experience which accommodated her unique needs.

"Jean": High Engagement, High Academic Achievement. As a high school student, Jean definitely fit the stereotype of the driven, hard working, overachiever. She was polite, focused, and very determined, something that proved very beneficial for her success. One interesting thing about Jean, however, is that she lacked confidence with using technology. The researcher recalled how at the end of her first day of New Media,

Jean came up to her to talk about this anxiety. Jean feared she did not know enough about computers to be successful in the class. The researcher encouraged her to give it a try, assured her that we would be doing many small assignments before we undertook any larger projects. The researcher also explained that she would provide any extra help Jean needed, both in class and during the lunch hour. Jean took this to heart, industriously pursued these scaffolded projects, coming in on her own time, and becoming an expert as the class progressed.

During the first days of the course, the varied challenges of the projects kept Jean moving forward, rather than falling behind. She persistently raised the bar for herself no matter what challenge the researcher gave the group, working far beyond class time in order to complete assignments and frequently doing extra work on her own over the weekends and each weeknight. During one small 'paranormal footage' activity, where students had to create an illusion using special effects in Premiere, Jean wasn't happy with her results because the camera had shifted slightly between the two shots, and she felt it was obvious how it had been created. The researcher showed Jean how she could blend the two videos, using a transition, but also let her know that one choice was to re-film that particular section of her video. After considering it, Jean decided she would rather redo that section, a choice demonstrating her determination to challenge herself rather than just doing an okay job.

As a general rule, Jean responded well to all types of instruction, and she was quick to let the researcher know if she didn't understand what was going on. This occurred frequently in the first few days of video instruction, but became less as the course progressed and her fears were allayed. In the first weeks, Jean seemed particularly

concerned by the amount of information that would need to be remembered. As class progressed, and her worries came to light, the researcher talked to her about the difference between "what to learn" and "how to learn", encouraging her to see the things she didn't know how to do in Premiere as challenges, rather than failures. The researcher was not certain that she believed her at first, but she did see a transition as Jean began to look for answers. By the end of the video unit, Jean would seek out tutorials, and locate descriptions of the special effects she wanted to create before she asked for help. She also reviewed and reread the written instructions the researcher had provided if she was unsure, and asked assistance from those around her, and from the researcher.

Jean was a naturally shy student, who was quick to blush or become embarrassed if attention was brought to her. She had several close friends in the class, and she sat next to them for the entire term. This small group of girls were the people she worked with on several of the small, collaborative projects where the researcher allowed students to choose their own groups. With each of these projects, Jean's confidence in her skills, and her willingness to assist others, grew. Because of her attention to detail, when her group worked together on small projects, the other students would often look to Jean for assistance when the project went awry. With each passing day, she became more confident in what she was capable of creating, assisting others and sharing this knowledge. This ability increased her own confidence in her skills, and by the midway point of the course, her rhetoric of "not being good with computers" had completely disappeared.

Paradoxically, though introverted, Jean worked well in a group setting. In situations where the researcher asked students to work collaboratively but had pre-selected the groups, Jean was willing to participate, though she was often quieter than she usually was.

Despite this, Jean definitely took a leadership role in these small group projects. Her direction kept the group focused on their tasks and working together rather than getting sidetracked. In large group discussions and critiques, she would reluctantly participate, but in a smaller group discussion, especially as the class continued, she was very willing to offer insights. It was in this manner that the researcher was able to see Jean's transition from uncertainty to confidence. Though she didn't participate much in the larger group discussions, the small, think-pair-share discussions demonstrated her metacognition in the work she was creating. Jean's understanding of what needed to be added altered revised increased with each project, and she carried these insights into her work.

Throughout the class, Jean's warm manner made her a favourite with her classmates. By the midpoint of the course, it appeared that Jean had become comfortable with the class and the instructional approach used in the New Media classroom. The set-up of the classroom, with flexible spaces and the organization of the instruction into scaffolded small projects worked well with her learning style. With her newfound confidence in editing and collaboration, Jean became adept at moving from one project to the other, and she often offered assistance to those around her as often as she asked for help. Unlike her fears at the beginning of the course, where she felt she didn't have the skills to succeed, Jean demonstrated that once she had developed the basic skills, she was fully capable of moving well past the minimum. She was no longer a recipient of information. Instead she was finding ways to challenge herself and become an expert as she developed her own knowledge-base. It appeared that her willingness to participate was facilitated by her acquired expertise and her peers need for assistance.

Throughout the term, Jean was one of the few people in the class the researcher didn't ever have to remind to stay on topic, though she suspected this was also true of all of Jean's courses. Jean worked diligently on whatever assignment was given, seeking out extra help and pushing beyond the minimum in all things. She approached the researcher more than once, as the final video project began to near, wanting to discuss the possibilities for her project. It was clear that Jean was already giving plenty of thought to assignment, well before most other students in the class had even begun to consider it. By the time the small groups were in discussions of their possible topics for the student-generated video project, Jean had already chosen hers and was coming in on her own time to work on it (see Appendix S for samples of student projects). The researcher had shown the class many choices for the final project, but Jean chose to adapt one of these choices, demonstrating her creative insight into the project.

Jean elected to create a remixed music mashup video for her final project, a variation of one of the exemplars the researcher had provided the class. This two-part project involved the editing of videos from a variety of sources, in time to the music with transitions and special effects used to enhance the visual and auditory quality of the final video. The first portion of her project required Jean to bring the song file from her computer at home, import it into the project, and then locate, and import the videos she was using as source material. This done, Jean began the task of adding in the special effects, changing the speed duration of each clip, adjusting the colour balance of each file, and adding transitions to move from clip to clip. Each decision had to be selected, the frames cut and edited, while decisions were made regarding how it would enhance the overall project. The second part of the project, which Jean and her friend had come up with on

their own, involved blending Jean's video with a project created by her friend, adding a second layer of challenge to the final video assignment. By choosing to mash-up her own video with another student's video, it increased the complexity of this particular assignment, making it exponentially more difficult. As each student finished, they were suddenly saddled with the task of blending the two parts they had independently created into a seamless whole. Jean and her friend took all the decisions it required to make this happen very seriously, and the final result looked very professional.

Overall, Jean was one of the highest achieving students in the class, and her marks reflected this (see Appendix R for the full rubric). She completed each of the scaffolded assignments that made up the portfolio section of the marking rubric, while also scoring equally highly in the quality portion of the rubric. Most stellar, however, were her results with the Critical Engagement section of the rubric. With each problem she had encountered, Jean had demonstrated both her willingness to accept challenge, her ability to seek out answers, and her engagement with the project. She admitted having some fears about working with computers when she first came into the class, but she went far beyond those initial misgivings. Jean's marks for New Media were reflective of her high level of engagement and her drive and her high engagement levels were apparent in everything she undertook. More importantly than that, however, Jean's confidence is the aspect the researcher felt most benefitted from the experiences she had during the New Media class.

Considering the original research questions, Jean's CES score of 46 points out of 50 further affirmed her as one of the most highly engaged students in the classroom. Both her interview results and her CES score demonstrated that Jean did indeed perceive the

classroom climate as highly engaging. Jean's interview results also revealed a positive perception to her own engagement, in regards to the student-generated video project.

The three meta-themes were readily apparent in Jean's transition from the beginning to the end of the class. *Meta-theme 1: Positive Relationships and Affective Climate* appeared in the transformation of Jean's relationship with herself. In the first days of the course, she was a student who was particularly nervous of making errors, and concerned she should not be in the class, but by the last week, she showed herself to be a confident student, willing to assist her peers. Her positive relationships with others and the support she received and gave all became part of this meta-theme. *Meta-theme 2: Personalized, Student-centered Supported Independence* was evident in the way Jean was able to cope with challenges and thrive during the course. The risks she learned to take assisted her in making this marked transition from uncertainty to self-confidence and independence. *Meta-theme 3: Accelerated Lift and Independent Learning* was revealed through Jean's willingness to ask and receive direction, and to embrace the myriad of choices the final project provided, ultimately adapting it into something completely novel. By this final project, Jean was taking risks with her project, opting to embrace her own, creative vision, rather than following the guidance of others. Jean had excelled at each step of instruction, but the final project demonstrated that she had truly achieved lift. She now had the ability to guide a project from conceptualization, to creation, to self-assessment, and finally revision.

"Hank": High Engagement, High Academic Achievement. Hank was another highly driven student whose work ethic made him particularly successful in the class. Quiet by nature, he was not a particularly strong leader, but he enjoyed working on projects with

his friends. Hank's class work was very high quality and he worked particularly hard to keep ahead of the class. During the first days of the New Media course, Hank came to the researcher, wondering if there were supplementary resources he could access. He would often look through these instructions and tutorials (available online) in order to prepare for the instruction since he liked knowing what was "coming next". The daily activities the researcher assigned to the class were done immediately, though, during the first week of the course, the researcher noticed that Hank didn't always challenge himself to go beyond the minimum. In this situation, Hank would work toward the goal of the assignment, completing it exactly as described, but going no further. For example, if the researcher required students to create15 seconds of green-screened footage, with at least two transitions, posted to his portfolio, then this is what he created. He would include absolutely nothing more and nothing less, whether or not he was challenged.

Seeing this, the researcher took Hank aside to discuss this, and it became clear that he had, as many students in the class did, a concept of reaching the goal, but not pushing himself to go beyond it. The researcher and Hank talked a great deal about this, and she made sure he understood the Critical Engagement rubric that would be used as a portion of his final mark. The Critical Engagement rubric was used to evaluate as student's levels of creative problem-solving, self-reflection, critical awareness, and innovation during the video creation project, and was a separate mark from the Project Quality portion of the mark (see Appendix R for the full rubric). Originally Hank seemed confused by the concept of Critical Engagement, but took the rubric to heart, asking regularly if he'd gone beyond. Hank's perception of reaching the minimum expectations slowly changed as the weeks passed. The researcher insisted that he find ways to challenge himself beyond the basic

level of accomplishment and with each small project, he found this easier to do, until by the end, he was coming up with his own extensions to the projects, rather than constantly looking to the instructor for suggestions.

In group settings, Hank tended to function as the worker and quality-control member of the group. He had no interest in leading the other students, as he was more reserved than some of his peers, but he always completed his sections of the work without delay. With his classmates, he often shared insightful thoughts on improving projects, and was willing to help others to complete their work. The researcher recalled one incident where Hank's group had completed one of the small, collaborative projects with his group, and he and the other group members were going back over the results of their production. In this small, scaffolded assignment, the students had to layer on an existing image atop a different background. During the discussion of the project, Hank expressed his concerns that the background image wasn't working because the frame of it was visible beyond the other images which had been layered onto it. (Essentially, he could see that the background film hadn't been re-sized to correctly fit the sequence.) Hank went on to describe how this might be fixed, and what could be done. He oversaw the revisions to this section of the project, reworking the green screen and special effects until the project had reached his vision of being done right. As an aside, it was a variation and extension of this assignment which Hank elected to complete for his final project.

Hank had several friends in the class, and they'd often take breaks together on the couches in the discussion space. He was also willing to participate with students he didn't know well, and any natural inclination toward shyness didn't hold him back. Though quiet, he was liked by his peers, and found it easy to move between social groups in the

classroom. In this way, Hank's natural shyness, evident at the beginning of the term, slowly faded as he became more comfortable with his classmates.

By the mid-point of the course, when the concept of critical engagement was one which most students clearly understood, Hank demonstrated a willingness to go back and add details to his own projects based on self-review, small paired discussions, and group critiques. He always strove for his own, personal best. He didn't mind asking for further clarification, and would add in details once he did. He was also quick to ask for assistance if he didn't understand how to do a project, and was open to one-on-one instruction and peer mentoring.

As the final project began, Hank found these personal connections to be an asset to his progress. In his interview, he talked of how much he enjoyed interacting with his friends, and creating a project that they liked too.

His final project involved bringing in pieces of other films into a new background and forcing these different source images to meld together. This required the creation of a complicated series of special effects far beyond the scope of most students in the class. To complete this project, Hank first downloaded and resized a series of background film clips. These sequences were used as the background imagery. On top of these, masks were created, using Adobe Photoshop and Adobe After Effects, in order to block out and mask the sections of the background to be reworked. The researcher had shown him several of these techniques, but some of these effects were self-taught, using tutorials he had sought out himself. From this point, additional footage was filmed, matching camera angles, so that Hank could bring these new sequences of people, objects, and images into the footage, adding another layer to the film. The combined multi-layer film was then exported and a

final layer of texture added on top to 'glue' all the pieces together and hide any visible seams, something Hank was keenly aware of. All of these manipulations in his final project were based on the skills Hank acquired during the scaffolded green-screen project, but the techniques he used were far more advanced. This finished film was exported and placed online in Hank's portfolio. He was especially excited about the results and spoke positively of the experience during his interview (see Appendix S for samples of student projects).

Overall, Hank's marks reflected a high level of focus and engagement, and his projects were high quality and very detailed (see Appendix R for full rubric). He completed all assignments in his portfolio of scaffolded assignments. In the final project section of his portfolio which was based on quality, Hank earned top marks by creating an exceptional film project which demonstrated his expertise in using the advanced tools in Premiere. Regarding the Critical Engagement section of the rubric, Hank's scores improved as the term progressed.

At the beginning of the term, he struggled with finding ways to challenge himself. Part of this seemed to be caused by expectations in his other, traditional classes, however, by the time the final film project began, Hank had made the adaptation to the expectations of New Media and was finding his own reasons to challenge and push himself to do further extensions to his work. Hank worked well in the student-centered classroom situation, and was an asset to other students in the class. Most important to his success, however, was the change in perception regarding reaching the minimum, or going beyond it. In this particular aspect, Hank saw the greatest change to his learning style, and demonstrated a significant change to his levels of personal engagement with the class projects.

When considering the original research questions, Hank's CES score of 43 points out of 50 clearly marked him as highly engaged. His interview responses also demonstrated his perception of the classroom climate as engaging, and positive in nature. In regards to the learning approach used during video creation project, it was also clear that Hank perceived his own engagement in a positive manner.

All three of the meta-themes appeared in Hank's adaptation to the class structure. *Meta-theme 1: Positive Relationships and Affective Climate* was shown through his growing connections with his peers, and his relationship with the instructor. By coming for guidance, and by taking suggestions from his classmates, Hank found that he was able to improve upon his initial work, and his discussion of the final project demonstrated his positive affective response to the finished project. He was also then able to contribute significantly to the work of his peers. *Meta-theme 2: Personalized, Student-centered Supported Independence* appeared through Hank's growing inquiry into his own learning, and through him developing his own methods of coping when his project became challenging. Because Hank had taken on such a difficult final project, this meta-theme was more pronounced than with other students, though in his discussion of his experience in the class, Hank focused on the positive outcome, rather than the challenges he'd encountered. Clearly, *Meta-theme 3: Accelerated Lift and Independent Learning* manifested itself in his experience of scaffolded learning, and building of skills. By the time he undertook his final project, Hank was comfortable with the transition into independent learning, and was quickly able to achieve self-engaged independence with this final project. His willingness to take risks, to challenge himself to try new approaches, and to go back and revise when

his techniques needed work, all demonstrate a high level of understanding and critical self-reflection all reflections of him reaching accelerated lift in his work.

"Candice": High Engagement, Low Academic Achievement. Candice was an interesting student to study since her low academic abilities caused her extra challenges with all of the assignments, but that never impeded her engagement. Over the term, the researcher was able to observe how the flexible set up of the classroom worked particularly well for Candice, since it allowed her to set her own pace of learning, and to adapt for her own interests. She expressed her enjoyment of the New Media class many times, and was very successful despite her diagnosed learning challenges.

During the first days of the course, before she got to know many students in the classroom, Candice was very quiet and withdrawn. On the very first New Media class, the researcher started with an ice-breaker assignment. During it, students had to go around and talk to their peers in order to fill in the answers to a series of personal questions on a Bingo card. (For example, "A1: This person has a sibling with a different last name.") The purpose of this task was to get students talking to one another, and to learn at least one thing about several people in the class. The researcher started the assignment, but Candice didn't leave her seat or join in to participate. Seeing her at the side, head down on the computer desk, the researcher came to talk to her quietly and suggested she give it a try. At that point she left her seat, but only begrudgingly spoke to the students nearest to her. On this same day, the researcher assigned students to teacher-selected groups, mixing grades 10's, 11's and 12's into diverse groupings. In these new groups, she had them complete the first, small collaborative assignment. Candice reluctantly participated in the group, but

made it clear she didn't enjoy it. Ironically, these first students she worked with became the ones that she eventually became friends with.

While Candice generally had a positive attitude toward learning, and could be counted on to comply with the researcher's requests (such as to join into the class activity) she could also be moody and distant. Candice had difficulty staying awake during instruction, especially if there was verbal direction for assignments. She had one close friend in the classroom whom she had taken another class with previously, though she would talk to several people in the same social group. Skipping and unexcused absences were occasionally an issue, but only during the first few weeks. The researcher suspected that part of this was due to her dislike of the enforced participation and group projects. As the weeks passed and Candice became more comfortable with the learning structure and grew comfortable with her peers, her attendance improved. Having taught Candice in a prior class, it's fair to say that if she liked the class, she attended. By the end of the course, she no longer had an issue with unexcused absences.

From the very beginning, Candice found written or verbal (group) instruction difficult to follow, and would often go off-topic if that was the approach the researcher used. She frequently would open her facebook account to chat with friends if she became bored. Multi-step instruction was most challenging for Candice, though small, specific assignments with clear outcomes were less problematic. If the researcher saw her on facebook chatting, she would pause in her instruction and come talk to Candice directly, while the other students continued on with their individual scaffolded projects. Candice responded very well to one-on-one instruction or assisted guidance, responding positively to this attention. For instance, if during the larger instruction the researcher stopped to

assist her as soon as she saw Candice was going off topic, then Candice quickly returned to task. She also responded positively to peer mentoring, and would often ask her friend who sat next to her, or the older students she'd met during the first group project, for clarification. The researcher encouraged this behaviour, and by the time we reached the mid-point of the class, Candice would ask those around her for help, rather than simply turning off task, and chatting.

Once she was past her initial hesitation, Candice worked well in a group setting, though she would not take the role of leader. She was most comfortable in following the leadership of others. In discussions and critiques the researcher noticed that although Candice could sometimes see that something was "wrong" with the project, she wasn't always able to make the cognitive jump as to how to fix it. Pairing her with students who had more experience editing, or who were more adept at self-reflection, solved most of this issue. Once she had an idea of how to correct the problems with her projects, she was willing to go back and change them. Candice was very accepting of the challenges she had with projects, and with schoolwork in general. She recognized that some tasks were difficult for her and others were easy. In her interview she spoke of taking breaks from the problematical sections in order to maintain her enthusiasm for a project. Considering her issues with schooling, and learning challenges, the researcher considered this a particularly insightful realization regarding her learning style. If this knowledge was applied to other classes, it could benefit her ability to complete work.

By the mid-point of the unit most students, including Candice, were comfortable with the basic editing process. Once she had the skills to complete video editing projects, she worked for long periods of time, unassisted, on her large assignments. Candice took

frequent breaks, moving to the discussion space or walking around the room, but quickly returned to work without needing to be reminded. She enjoyed the option to move around, and it had a positive impact on her ability to work. The researcher would often stop by the discussion space to talk with her about what was happening in her project in an informal way, thus able to provide feedback without interrupting her while she was working. In her interview, Candice spoke about how this flexible learning structure allowed her to cope with the more difficult challenges of the course, rather than simply zoning off when she couldn't focus. It was clear she needed this type of cognitive down-time in order to rest between bouts of mental activity. Again, the researcher suspected that this insight would assist her achievement in other classes.

In class critiques or small discussions, Candice rarely volunteered her thoughts, though if asked, she would respond. By the time the final project for video creation began, she had found her own niche for working. In small groups, she worked on portions of work, but generally preferred to work on the project on her own, or with her one close friend in the class. Unlike some of the other students in the class, she didn't generate new ideas easily, but was willing to adapt existing projects and exemplars to fit her particular interests.

Candice was very excited to begin her final project, a mash-up trailer (see Appendix S for samples of student projects). This project involved taking a variety scenes from two different movies, downloading them in small sections, and then editing them together in a way that created a 'new' movie trailer from the two source films. Details such as lighting were often a challenge as Candice had to manipulate the brightness contrast and colour balance in order to match the divergent scenes. She also had to unlink and remove the

existing audio and replace it with a new soundtrack which linked the two videos together.

Candice worked diligently at it, coming in during her lunch hours to add in the final

touches. As she neared the end of this final project, the researcher recalled Candice talking

to her at lunch hour about the project, and Candice admitting that she honestly hadn't

thought she was capable of completing it when she had first begun. She was surprised by

how it had turned out. In the last days of the video unit, the video project was exported and

uploaded to her online portfolio for marking. Her excitement upon its completion was

especially heartening, since it was clear that this was one of the few classes where she

found such joy in educational success.

Overall, Candice functioned very well within the flexible freedom of the New

Media classroom (see Appendix R for full rubric). Her completion rate of portfolio

assignments was high, though not exceptional, and her marks on the final project rubric

reflected a high level of focus and hard work. Though her final assignment had a few,

lingering issues, the detail and attention she'd given it was reflected in a mark of excellence

in her Critical Engagement rubric. Candice had certainly excelled in challenging herself to

go beyond the requirements of the assignment. The levels of creativity she brought to the

assignment were evident in the unique way she had formed a new movie out of the pieces

of two existing films. Self-reflection, assisted by Candice's peers and by the researcher,

critique, and then revisions had all resulted in a final video project that was very well done

and highly detailed. Candice's marks in the New Media class far exceeded her other

courses.

Considering the original research questions, Candice's CES score of 45 points out

of 50 placed her as one of the most engaged students in the class, and her interview

reiterated these findings. Candice's discussion demonstrated a positive perception of her own engagement in the classroom and to the instructional method in general. Her experiences were described in a positive manner and showed a classroom where, despite her learning challenges, Candice was actively engaged in her education.

Despite Candice's cognitive challenges, the three meta-themes emerged as she undertook the New Media course. *Meta-theme 1: Positive Relationships and Affective Climate* appeared early on, as Candice learned to adapt to the experiences of working in a group setting. This collaborative work was particularly effective in helping her to achieve *Meta-theme 2: Personalized, Student-centered Supported Independence.* This meta-theme was apparent in the way that Candice developed a support-structure for her class work, and coping mechanisms for her learning challenges. Sometimes this was through one-to-one interaction with the teacher, but other times it was through pausing midway through a project, and allowing herself work breaks. Each of these small supports assisted Candice in achieving *Meta-theme 3: Accelerated Lift and Independent Learning.* As Candice undertook her final video project, several transformations had taken place. To begin, Candice no longer balked at group projects and collaborative work. She was also much more comfortable within the structure of the classroom, and had adapted to the graduated structure of instruction, developing a basic skill-set through the smaller projects. Candice showed her attention to detail and focus on her final project when she came in for extra assistance on her movie trailer. By rising to the challenges and finding ways to adapt her learning skills to the project, Candice achieved lift. She took ownership of her own learning and found ways to make the project exactly what she wanted it to be, a far cry from her earliest experiences in the classroom when even participating had caused her to withdraw.

"Britney": Low(er) Engagement, High Academic Achievement. Britney was a very successful, highly academic student with a clear agenda of earning the highest marks possible. Though she did very well in the class, her lower engagement levels were rooted in frustration with the lack of strictly defined outcomes. From the very first days of class, it was clear that Britney was far more comfortable with traditional models of a classroom. As the researcher was going through the rubric with the class (see Appendix R), Britney stopped the researcher several times for clarification concerning Critical Engagement and what that meant to her in particular. Later that week, Britney came by at lunch hour in order to discuss it again, though it took several one-on-one discussions before she truly understood the purpose of Critical Engagement being included as part of her grade. She seemed particularly concerned that she had to find ways to challenge herself to perform, but that there wasn't a benchmark measure of how much. We spoke at length about the various abilities that each student brought with them, and that this was part of why it was important that each person find their own ways of creatively engaging in their own learning. In retrospect, it was clear she wasn't entirely sold on the explanation. This wasn't the only situation where Britney's previous experiences (of having only very narrow outcomes for projects) affected her ability to work within the broader freedom of the New Media class.

The small, scaffolded assignments, and the basic skill set they helped students develop, made complete sense to Britney as they were marked on a complete incomplete basis, and included into the Assignment Portfolio portion of the marking rubric (see Appendix R). The larger assignments and the collaborative projects were a different matter. Though she did very well in the class, Britney didn't perceive the benefits of choice in the

same way as many other students. In her interview and in our discussions during the course, Britney described how she just wanted to know exactly what the researcher wanted her to do, so she could make sure it was all "perfect". If she got to have a choice, Britney explained, then that was fine. If not, she was fine with that too. Her frustration at having no measure with which to compare herself grew as the class progressed. At all times, her attention was focused on receiving the highest marks possible.

Within the first week, the researcher had the students working in collaborative groups, as they undertook their first video projects. Britney made it clear that she preferred individual work. Again, this seemed to be founded in her experiences in the traditional set-up of the AP classes she was taking. She could be brusque at times, especially if she felt people in her group were not pulling their weight. It was apparent that Britney felt that the purpose of schooling was to earn the highest grades and move onto university. Although her preference was to work independently, she worked diligently if group work was required. As always, her work ethic was evident and she put in a high level of attention and focus. The other students' efforts were not necessarily appreciated and she insisted in a high degree of control in the group setting. Fortunately for Britney, some of the group work was with teacher-selected groups. As the class progressed, the researcher made the decision to specifically place her in groups with older students who had already taken the course. This forced Britney into the role of a novice who had to work to keep up with her peers. This assisted her in seeing the purpose of this group work, and the change in Britney's demeanour in this situation was marked, as she struggled to keep up and carry her weight within the group setting. She respected her peer expertise.

In other peer situations, such as discussions and critiques, she moved into the role of leader. She wanted to ensure that everyone did their job and by leading she was able to control this aspect. Britney wasn't shy in the least, and her extroverted personality served her well. She had several friends in the class, and was very outgoing if sitting with them. Face to face, however, she was quiet and focused. She excelled in class discussion and was a leader where critiques and small group discussions were concerned. Britney's verbal abilities were a benefit in this situation and she was often willing to re-explain the instructions to peers and or ask for further instruction. She was also very skilled in reviewing and analyzing the projects in order to ascertain what needed to be improved upon. A significant breakthrough occurred once Britney understood the concept of Critical Engagement. This occurred when she worked with another student on a collaborative project. Britney and two of her classmates worked on an out-of-school film project, putting together a video project that the young women had written and acted in. She and the other students worked far beyond the expectation of the small collaborative video, creating a finished video that far exceeded the parameters of the original project (see Appendix S for samples of student projects). For the first time, in this project, Britney excelled in challenging herself to work far beyond the project's expectations. By the end of the course, all of Britney's projects demonstrated a skill set the researcher would usually associate with intermediate or advanced editing students. Britney had clearly succeeded in challenging herself beyond the minimum.

Over the term, it became clear that all forms of instruction worked well for Britney. She was very willing to come ask for explanation if she didn't understand what had been asked. (Critical Engagement was one issue we addressed together more than once.) Britney

responded very well to one-on-one assistance and was quick to add the details suggested, often requiring assurance that she had done exactly what the researcher had asked her to do. She rarely went off topic, though she chatted while working, as she was quite sociable. This didn't impede her ability to complete her assignments, and in fact was a benefit as the class progressed, as she was able to see what other students were creating, and be able to compare her own creations to theirs. It is interesting to note that Britney found it easier to ascertain her own accomplishments by a scale of other students in the class, rather than on a scale of what she had accomplished previously in the class. This may have been part of the reason that finding new ways to challenge herself was so frustrating to her.

As the final project neared, it was obvious that Britney was determined to get the best possible grade. She was more than willing to ask and get exactly what she needed in order to do well in the class, and came to the researcher several times for assurance about her final project before she began. During this final film project, Britney created a kinetic type of an existing audio clip taken from a movie (see Appendix S for samples of student projects). This project took place in several stages. The first stage involved selecting her audio track and bringing it into Premiere. This done, special effects and titling were added, along with images. Though she had not adapted the project the researcher had shown the class in the exemplar, (as some of the other students had), Britney worked doggedly at perfecting the technical details of her video. She wanted everything to be exactly "right" and required constant assurance that they were correct.

It's interesting that this was another project where the researcher really saw Britney become consumed by the process of editing. She put in far more time than required, added in details simply because she felt they'd make it look better, and made extra revisions after

the group discussions, and after showing it to her friends. Though she seemed unaware of it, the change from external motivation to internal motivation had clearly occurred. The creative process had taken on a life of its own, with Britney shaping the project into something that was far beyond her original expectations. After this exhaustive process, the researcher spoke to her about how she felt about the project, and she seemed to be genuinely satisfied, though not entirely certain she'd "done it right". Though she'd succeeded without a doubt, it was still clear that an open-ended project made it far more challenging for her than if everyone was required to create an assignment within exactly the same parameters.

Overall, Britney worked diligently in the New Media class; her grades for the modules were all excellent (see Appendix R for full rubric). She worked industriously in the course as I'm certain she does in all of her classes. In her portfolio of assignments, Britney had perfect marks, and these daily, scaffolded projects were completed without delay. In her final video project, she scored excellent on the quality rubric, as demonstrated by the level of detail included in her final project. Britney's Critical Engagement marks, which had been a challenge to her all unit, were also exceptional. Though Britney never seemed to be self-aware if she was doing 'enough', her determination to follow the rubric, and push herself beyond the minimum resulted in some truly outstanding work. The researcher believed that if Britney took the New Media course a second time, the internal motivation, which had only emerged in the final project, would become the norm. Britney's work ethic and drive for grades were clear from day one, and this was reflected in her focus on completing high-quality assignments that pushed her own limits. The frustrations the researcher sensed over the term were simply in regards to going beyond the minimum;

Britney admitted to preferring a checklist of things to complete. Once she and the researcher discussed the expectations, and how to go beyond, she was more than capable of this, and her grade reflected this personal breakthrough.

Regarding the original research questions, Britney was flagged as 'low engagement', though with her CES score of 44 points out of 50, this is a relative term. (As shown in Figure 2, her score, as all in the class, were well above the norms of CES scale.) During the interview, it was apparent that Britney's perceptions of her own engagement during the New Media class were positive, as was her response to the instructional method used. Her interview responses described a classroom where, despite the challenges she encountered, Britney was engaged in the experience of learning.

There was a significant transformation in Britney from the beginning to the end of the course, with all three meta-themes demonstrating this change. *Meta-theme 1: Positive Relationships and Affective Climate* appeared as Britney became comfortable in the structure in the class. By asking for assistance during projects, and through her willingness to participate in group discussions, the positive affect of this meta-theme appeared, along with the supportive structure of peer-to-peer and student-to-teacher interactions. *Meta-theme 2: Personalized, Student-centered Supported Independence* was demonstrated through the transition between Britney's earliest approach to the class assignments, where she wanted to know exactly what was required, and expected to do no more than it required, and her final demonstrations of learning through the student-centered video project. In this long-term project, Britney showed that she not only was capable of managing the difficulties she encountered, but she actively sought out help when she needed to overcome them. By making the clear transition into Critical Engagement, Britney

ensured that she achieved lift through *Meta-theme 3: Accelerated Lift and Independent*

Learning. This was revealed through her focus on challenging herself, and going beyond

the expectations of the assignment. Even though Britney wasn't entirely certain she had

done her kinetic type "right", she gained the ability to review, adapt, and revise her existing

project. All of these transformations in her learning style connect back to the concept of

accelerated lift.

  "Mike": Low Engagement, Low Academic Achievement. Mike was one of the

most atypical students the researcher had taught in the last ten years and one of the most

challenging and aggressive students in the New Media classroom. This particular class was

only the second regular school course he had taken since his return from an alternate

schooling program, a unique school setting specifically designed for students with severe

social and behavioural issues who cannot function in a regular school setting. The first

course, taken earlier the same year, had also been New Media, so The researcher had taught

Mike once before. At that time, he had only just returned to the regular classroom after

being outside the normal educational system for his entire junior high experience. His

personal history of aggression was one that had caused many issues for his education up to

that point.

  Since the researcher had taught Mike in the previous term, she knew from the

beginning that his personality could be (and was) a challenge in a regular classroom setting.

During those first days, it was clear that Mike wanted to be seen as tough and was very

concerned that other students perceived him this way. The first day of classes he

established that although there were no assigned seats in the classroom, that the computer

at the back of the classroom was "his". The researcher recalled how he came up to the

computer station, dropped his book bag down beside it, slumped into the chair and crossed his arms on his chest in a clear, non-verbal statement of ownership. The rest of the students seemed to recognize this, and this computer station became Mike's place for the rest of the term. (It is an interesting side-note that the teacher station for the classroom happens to be at the back of the room, so Mike had placed himself directly beside the teacher.)

The researcher knew from the previous term that any disciplining had to be done outside the classroom, thus removing him from any audience, as Mike would otherwise react loudly in order to impress those around him. In one situation from the previous term, Mike was working on his computer, but using the computer's speakers rather than using his own headphones. In that particular situation, the researcher asked Mike to use his headphones, and he reacted very loudly, basically saying "come over and make him". With a sudden audience of very interested, worried students, the researcher crouched down next to Mike and asked him, very quietly and calmly, if he would come talk about this in the hallway. The class was silent, awaiting his response. Furious, Mike headed to the hallway, but didn't stay to talk, storming away instead. In that situation, the researcher contacted the office, alerting the school liaison officer who was working with Mike, and we had a private meeting before he returned to the classroom. This experience certainly helped the researcher to remember to speak to Mike privately when disciplining even the smallest infraction, and to choose her battles wisely.

By the time Mike entered the New Media class that became part of this study, he and the researcher had come to an understanding on what worked in the classroom. Mike knew that if the researcher was concerned about something, she would speak to him privately, and he knew in return that if he walked away from the instructor during our

discussion, that a meeting with administration and his liaison officer would follow. The researcher had discovered over the previous term that reminders about deadlines tended to aggravate Mike, as did any prompting to work. He was easily frustrated by teacher-student relations, and a careful approach had to be used with him at all times. It was more effective to simply include these reminders for the class in general and hope that Mike would pick up on it too. Sometimes this worked, sometimes it didn't, but it was invariably more effective than having him explode in front of the rest of the group.

Mike found the New Media course particularly problematic the first time he took it during the year. During that class, he regularly asked "is this worth marks?" before he would attempt any project, no matter how small. During the interviews for this research study, he admitted that he found the video project very difficult and unpleasant the first time, but that he enjoyed it more the second time because he knew what to expect. The second time he took the course, Mike and the researcher had developed a tentative rapport. She would often join him in the discussion space to talk with him about his projects, offering thoughts and then moving on before it became evident she was guiding him in any way.

From seeing him one term to the next, it became clear that although it took Mike time to adapt to the instructional style of the New Media class, the freedom actually was very beneficial to his achievement. He learned to self-regulate, and would allow himself breaks where he would get up and walk around the classroom, or go sit in the discussion space. In this environment, Mike was more comfortable in talking to the instructor, though he rarely made eye contact and would often stare at his ipod, clicking through songs as we chatted. In this way, however, the researcher was able to get a sense of where Mike was in

his projects, and since he felt like it wasn't 'work time', the researcher being there alongside him allowed us the opportunity to talk on more neutral ground. Between the two terms, the researcher noticed that Mike developed skills in pacing his own work, planning his work time and completing better quality assignments. All of these skills were a significant improvement to the first class we'd had together.

In both terms, Mike's social dysfunctions were a challenge for group work that required more than two people. Mike did not participate in critiques. In small groups he would discuss though he easily went off topic. The other students in the classroom tended to be wary of Mike, and gave him a wide berth. He had one close friend in the classroom, another student who had been in the alternate school program in junior high. They worked together on most projects. Generally they worked well together, though they also skipped classes at times. In this situation, the school liaison went to find Mike and his friend, and returned the two boys to class if he located them. As with conflicts, the researcher found that the best resolution to the situation was simply to thank Mike for returning and leave it at that. It is worth noting that he skipped class less the second time the researcher taught him than the first time.

When he was having difficulty with project, Mike would not ask for help, he'd simply stop altogether. Over the time the researcher taught him, she discovered that the best thing to do was not to ask him what was wrong, but to guess at the issue, and come up and say "can I show you something cool?" This way, he could still get one-on-one assistance without it being obvious that there'd been an issue at all. He gladly accepted this type of help, though only from the instructor. He didn't want any assistance from the educational assistant in the classroom. Mike also enjoyed the daily projects, simply because

he could learn basic skills and apply them. Over the two terms, the researcher saw a marked improvement in his editing abilities.

By the time the research class reached the point where the final video project began, Mike had already decided what project he was going to attempt. He and his one close friend worked on this project together, with Mike taking on a larger portion of the editing, as they put together a very complicated green-screened video project. Mike explained to the researcher that he wanted to have his friend dancing in an existing music video (see Appendix S for samples of student projects). Though the researcher knew the challenge of this particular assignment was steep, she encouraged him to continue, offering plenty of random instructional moments when she 'just happened' to think of something she needed to show him. The first step in this video was to download the particular music video he wanted to recut. This done, Mike then matched the various camera angles in the video, filming his friend dancing along to the beat, while playing the song on a laptop in the green room in order to match the dance steps. When this footage had been created, Mike imported the clips into Premiere, and began the challenging task of replacing the existing dancer with his friend. At this point, the researcher stopped by his computer station to mention that there was a really cool way that you could mask existing background objects using After Effects, and showed Mike an example with his video. He followed this approach diligently, transforming the background video, and placing his friend into the existing scene. Though his alterations showed a very basic skill set, he had accomplished this edit himself, and the researcher took this as a huge success for Mike. Noticing that the new footage was far too bright for the original video, she once again stopped by his station, mentioning that she had seen a really neat way of altering footage to make it look darker,

and did he want to see it? Again, Mike followed along, making the adjustments without having to actually ask for help. In this way, the researcher was able to help him to complete the video, a project which he was particularly proud of.

The final steps for the video were to export the finished film and upload it to Mike's portfolio. After the course ended, the researcher heard from a colleague who taught Mike in another class that Mike had shown the finished video to his friends in his other classroom, and had talked to them about how much fun he'd had creating it. Though Mike may not have said the words to the researcher directly, the fact that he voluntarily shared his work with other students is a testament to how positive the experience was for him.

Overall, the researcher would consider Mike to be one of the true examples of success in the classroom. Considering his personal challenges, he did very well within the New Media classroom, and is a particularly good example of the unique instructional strategy and how it can facilitate student success. While Mike's marks were never particularly stellar, his experiences in New Media helped him learn to function in a regular classroom, and get along with other students. His ability and willingness to work on long-term projects are skills that would be a boon in other classes. The marks Mike earned for the portfolio of small assignments were acceptable, though he didn't finish some of the assignments due to absences and giving up on some of the earlier tasks (see Appendix R for the full rubric). His final video project earned acceptable marks, as it demonstrated reasonable quality. His skills were basic, an improvement over the previous term, but a huge stride for him. Mike's Critical Engagement marks demonstrated a basic level of achievement. Mike was not yet at a place where he challenged himself voluntarily, but the researcher believed that, given time, he could eventually get to this point. It is interesting to

note that while Mike's engagement levels are, for the sake of this study, considered low engagement, the researcher strongly suspected that if one considered his engagement levels for other classes, given his inability to function in a regular classroom, that the student-based project approach was highly effective for his particular learning needs.

Considering the original research questions, Mike's CES score of 32 points out of 50 put him at the lowest level of engagement for the entire class. This score aligned with evidence gathered during his interview in which Mike demonstrated limited levels of engagement during the New Media class. His self-described perceptions of engagement in relation to the instructional method showed a positive affect. Even though Mike's CES score identified him as low engagement, his interview responses showed he was actively engaged in his own learning, and positively impacted by the experience.

Despite Mike's unique situation, each of the three meta-themes were manifested in his experience of the New Media class. *Meta-theme 1: Positive Relationships and Affective Climate* appeared in his positive reaction to the video project which he noted several times during his interview. His peer affect, while admittedly much lower than many students in the class, did develop over the two terms, allowing Mike to function in a normal classroom, and to interact, at least in a cursory way, with his classmates. *Meta-theme 2: Personalized, Student-centered Supported Independence* was the strongest meta-theme demonstrated in Mike's personal journey. By learning to adapt his learning style in the flexible classroom, finding mechanisms to help him to manage difficulties, and learning to cope with challenges, Mike was put in a better position for academic success in future classes. Each of these elements assisted in him achieving a portion of *Meta-theme 3: Accelerated Lift and Independent Learning.* Unlike some of his peers, Mike's unique set of circumstances made

it difficult for him to take complete control over his learning, and achieve lift in the same way students like Jean or Hank might. Despite this, Mike did find ways to use the classroom environment to his advantage, pausing for breaks when he needed, and moving to different tasks as he worked through the project. In his final project, Mike showed that he was on his way to achieving *Meta-theme 3: Accelerated Lift and Independent Learning.* Though still in a nascent stage, given further support, Mike might reach enough independence to achieve his own accelerated lift.

"Allen": Low Engagement, High Academic Achievement. Allen was one of the most academic and driven students I've taught. The quality of his work was excellent, and it was clear that he had an intense desire to be the best in everything he did. New Media posed a challenge for this reason. From the very beginning, Allen was frustrated by the flexibility of the classroom, and by the collaborative work that was part of the scaffolded instruction. Since Allen was used to the traditional model of instruction, this alternate approach caused him some concern, and during the first days, Allen often approached the researcher to discuss what was required, whether or not it was worth marks, and how exactly it would be assessed. Rubrics were very helpful in dealing with Allen's concerns, as were the smaller, scaffolded assignments which assisted Allen in building skills during the first days and weeks.

Allen made it clear from the beginning of the course that his interest was in knowing exactly what had to be done in order to ensure these top notch marks. He had taken all three of the sciences during his high school career, and had clear plans for university starting the following Fall. His focus was on preparing for this eventuality. With the understanding that all assignments were included in his final mark, Allen worked

diligently on every small scaffolded assignment, completing them before most students had finished them. He took occasional breaks, but not until everything was completed. As the course progressed, he became more comfortable with the notion of revising and improving upon his initial work, though this was a learned, rather than intuitive, process for him. Allen responded very well to feedback, and was quick to review and rework projects with suggestions. His focus, as always, was on achievement.

Allen had an engaging personality, and found it easy to talk to other students in the class. He was generally a positive student, and could often be found laughing and chatting with his friends in the classroom. In groups, Allen often took the role of leader. His personality was certainly part of this, as was his age, but it also allowed him to control what other students produced. When annoyed, Allen could be short-tempered and dismissive, especially to other students in class who he felt were holding him back. His attention was definitely on getting the best possible grades. In one particular situation where he and several other students were working together on a small, collaborative project, the researcher recalled Allen becoming very frustrated with some of the suggestions of the other group members which Allen deemed to be "silly". The researcher paused by the group, watching as they interacted. As the argument grew more heated, she reminded the group as a whole that the only rule in the classroom was "respect" and that the rule encompassed opinions too. The conversation continued on with a more positive tone, and the small, collaborative project was completed despite Allen's earlier concerns.

One negative the researcher noticed with Allen was that he could get very frustrated, especially where marks were concerned. He was frustrated by the lack of check listed assignments, and often asked for detailed feedback as he worked. When the

researcher provided this in one-on-one discussions, Allen often made notes in a Word document to make sure that he could go through his assignment afterward and complete everything the researcher had asked for. (Creating, ironically, his own checklist.) If he didn't feel that the parameters on large assignments were clear enough, as with the collaborative video projects, he would become aggravated. During the first weeks when the class was assigned the smaller, scaffolded assignments, Allen came up to the researcher for several discussions on "exactly what was needed" and what Critical Engagement actually required him to do. Allen struggled to identify improvements without the use of the Critical Engagement rubric. Again, his preference for check-listed marking was clear.

Allen worked diligently in group settings and was particularly keen on keeping the group on task. He also did very well in both small and large group discussions. After critiques he was quick to add in the suggestions, and his ability for self-reflection and revision increased as the course continued. During the first part of the class, when the researcher asked Allen to come up with possible ways he could improve on his own work, he seemed uncertain how to do it, but as the class progressed, his ability for self-reflection and improvement came more easily, until by the end of the course he was working through his own process of creation, assessment, revision and improvement. This change was a major breakthrough for Allen, as he was particularly bright, and could easily visualize what wasn't working in a video, and come up with ideas on how to fix it. He found the student-generated process more challenging than many students, simply because of how different it was from other projects in his regular classes. This struggle continued, though he did develop a better understanding of it with each passing unit until, by the end of the course, he was coming up with his own revisions and adaptations without any prompting. This

marked a major shift in the way that he undertook work. His projects after this point were far more detailed, showing a marked increase in quality and challenge. He was no longer looking for the "right way" to do a project, but actively searching for the best way to achieve his results.

As the video unit came to a close and students began working on their final assignment, Allen's anxiety increased. He clearly was more comfortable in a traditional classroom, which would have been reflective of most his other classes. This was one of the few options classes he'd elected to take during high school, and it challenged and pushed his vision of project-creation and class work through its set up. Struggling to choose a topic, Allen opted to extend on an idea he'd attempted in one of the smaller, collaborative assignments. In it, he created a video spoof based around a television series, using his friends as the actors (see Appendix S for samples of student projects). This project involved writing a script for the video, parodying an existing televisions series. A storyboard was then created for the project, where Allen selected camera angles, made director's notes, decisions on lighting, sound, and soundtrack selections. Allen and a group of friends filmed this project during class time in the hallways of the school. This film was imported into the Premiere project and edited to match the existing look (colour, sound quality, and editing style) of the existing television program. This done, final details like special effects, titles, and non-diagetic sound were added. During the final step of the filmmaking process, Allen exported his finished film and uploaded it into his portfolio. All of this was done with particular attention to detail, and the final product was exceptional.

The video project started off particularly challenging for Allen because it was the first large-scale, self-generated, independent project he'd been asked to complete during

high school. He seemed frustrated that everyone was working on different projects because, in Allen's eyes, there would be no way to compare them. In the first days of working on his final video project, he asked for guidance on every single decision, but slowly developed competencies and confidence as the project continued. Like Britney, it was clear Allen would have been more comfortable if the project had been a standard project where every student completed the same thing. Given the Critical Engagement rubric, Allen focused on the details it provided, raising the bar for himself ever higher.

Overall, while Allen found the student-generated projects a challenge, his marks certainly reflected a willingness to go back and add detail when needed. His grades were some of the top in the class that term (see Appendix R for full rubric). His portfolio of small, scaffolded assignments received full marks, as every assignment was completed. For project quality on the final project, Allen also received excellent marks due to the detail, quality and finishes of the final video. On the Critical Engagement rubric, which had concerned Allen for so long, he also received high marks owing to his focus on improving his projects. The ability to do this had improved over the term, with his grade improving in turn. The final mark he received for Critical Engagement reflected this transition. Without question, Allen was one of the highest achieving students in the New Media class.

An interesting side note is that Allen had an AP class the next term, along with a spare. He would sometimes spend his spare studying, but about three weeks into the term, he showed up at the New Media classroom and asked if he could come in to work on a project for himself. For the remainder of the term, he came back regularly to work on self-generated projects: print-making, video-creation, and several posters both for the class he was in, and his own use. Despite the frustrations he expressed during the interviews, and

the challenges that Allen had faced in New Media, it appeared he had made a mind-shift and developed the competencies needed to create his own, independently-generated projects. The researcher considered this to be the best, possible example of the class's success for him.

Allen's CES score was 32 points out of 50, tying with Mike as the least engaged student in the class. In regards to the original research questions, Allen's interview demonstrated that he perceived the classroom climate and instructional method as personally engaging and positive, though not to the same degree as his peers. Allen's low engagement scores reflected his self-described frustrations with the class structure, though considering the amount of interaction, involvement, and positive commentary in his interview, he was still engaged by the instructional approach.

As a student who had spent his entire high school career in the AP stream, Allen was unique in his demonstration of the three meta-themes. He came into the course with a preconceived notion of how assignments should be marked, and projects completed. The New Media course did not match this idea. For Allen, the first stage was adapting to the instructional approach. This occurred with *Meta-theme 1: Positive Relationships and Affective Climate.* By working closely with the researcher he was able to develop an understanding of Critical Engagement, and what that meant to his experience in the class. The relationship that developed had positive affect on Allen's class experience, as did his interaction with his peers. This support became integral to the understanding that Allen was finally able to make with *Meta-theme 2: Personalized, Student-centered Supported Independence.* This meta-theme was shown through Allen's ability to adapt to the difficulties he encountered, and find ways to adapt to these challenges. He strove for the

best possible grades, but this meant a transition in his concept of how to do this. With the support of classmates and the classroom structure, Allen's manifestation of *Meta-theme 3: Accelerated Lift and Independent Learning* appeared through his transition from a student who was only willing to do the minimum, to one who undertook projects as challenges, seeking out the best way to complete them. His behaviour beyond the class itself, when he returned to work on self-generated projects on his own time, are the best demonstration that while he did, indeed, struggle, there is no doubt he achieved accelerated lift.

"John": High Engagement, Low Academic Achievement. John was the second atypical student, though the differences in John were more to do with personality than with behaviour, as Mike's issues were. For John, the results of his CES score showed him to be highly engaged but the issue was that John found it very difficult to talk about his experiences during his interview and his responses, even when prompted, were minimal.

From the very first day, it was clear that John's natural reticence and introversion meant that working with groups was highly stressful for him. During the first icebreaker activity, John lingered at the side of the room, speaking when spoken to, but not initiating conversation. The researcher encouraged him to participate, but it was clear that even though he knew what needed to be done, and wanted to, his shyness prevented him from talking to students he didn't know. Unlike Candice, who remained at her desk, John knew he needed to be involved in the assignment, but he found it painful to participate. Prompted by the researcher, John came from the side, and stood silently amongst his peers. Seeing this, other students took the initiative and came up to him to talk which assisted in the first steps of interpersonal connection for John with the other students.

Collaborative work was also a challenge for John. One issue that became apparent in the first weeks was that he didn't ask for help right away because he was so shy. Once the researcher noticed he was falling behind on one of the small, daily assignments, she came to assist him. He responded very positively to this offer of assistance, and the researcher noted that if she came up and offered help, he was very good about taking one-on-one instruction and assistance. For John, the most effective approach to learning seemed to be hands-on work on a project whose boundaries he understood. The daily work was one of his favourite parts of the class because it allowed him to work on a confined project, in a clearly-defined way, and build skills along the way.

John responded well to the specific project-by-project instruction of New Media. The daily work was challenging enough that he didn't have much free time; he always had something he needed to complete. The large student-generated project seemed to excite him more than other projects, though he was leery of doing it wrong. In the initial discussions where the researcher had students talk through their ideas for the project, John was quiet, and offered nothing to the discussion. The researcher believed this was a good process for him, however, as he was a very attentive listener, and many of the discussion ideas appeared in his later work.

Compared to other students in the class, John was exceptionally quiet and withdrawn, and generally didn't connect with his peers. John's natural introversion made group involvement a challenge, and that impacted his learning. Group interaction where the researcher required students to work together on projects was not particularly effective for John. Because he was painfully shy, he didn't want to talk with other students in his group. In the first small group assignment, with teacher-selected groups, John essentially stayed

silent the entire time, and his group members assigned him the task of cameraman. His introversion severely limited his interaction and participation with his group. John's friend-group, though small, was stable, though he didn't have any close friends in the class. The friends he did have, tended to come by mid-class to visit during the break. Even with these friends, John was very quiet. He did have two acquaintances in the New Media classroom to whom he spoke on a regular basis. As a general rule, John was easy-going and kind, though his shyness kept him on the periphery of any group work.

In situations where the class needed to work together for discussions, John would delay going into a group until the researcher had to assist him in finding one to work with. Once there, he would do the minimum possible. John's shyness also prevented him from participating in both class critiques and small group discussions. During two-person sharing sessions, he would participate if he was paired with one of his acquaintances, but not with anyone else. There was improvement in this situation over the term, but it was due to plenty of assisted (hand-chosen) grouping. During the research portion of the study, the researcher was rather surprised at how engaged John perceived himself to be, since many time during the course it felt like she was forcing him into social situations which made him anxious and uncomfortable. The researcher did not believe this is because he disliked the class, but because of his natural temperament.

Overall, John did very well in New Media. His work, though slow, was conscientious and high quality, and demonstrated a clear understanding of the outcomes. He particularly seemed to enjoy the long-term project, once he was clear with what he needed to create. The final video project allowed him to work independently, removing the stress of interacting with others. For this assignment, John created an alternate movie trailer

for a video game for his self-generated video project (see Appendix S for samples of student projects). The first task of this assignment required him to gather existing trailers for the game, to create and record his own footage of game-play, and then import these pieces of video into Premiere. John began to edit and alter these pieces of footage in order to create a new version of a trailer, which told a slightly different story than the original, professional game trailer. John spent much time adding in special effects, and music, as well as downloading sound effects from a creative commons site in order to accentuate the final results of the video. With the finishing touches complete, John exported this video and uploaded it to his online portfolio.

The final video project was clearly his favourite assignment because it allowed John to showcase the skills he'd develop over the term and to work independently, without interacting with other students. John's editing skills were adequate, and he made small alterations based on self-reflection and suggestions that the researcher provided. (He didn't participate in the group critiques, though he included some of their suggestions too.) The final result was a good quality video that demonstrated his editing skills.

As the class came to a close, John's marks, while not stellar, were certainly strong and reflected a good understanding of the subject matter. He had completed all of the small, daily projects and received full marks for the portfolio section of the rubric (see Appendix R for the full rubric). The final project section of the rubric earned good, but not exceptional marks. There were some issues with the video, but overall it was certainly a good reflection of John's abilities. John's marks for the Critical Engagement rubric were similarly good, though not exceptional. John's inability to participate in discussions meant that he wasn't able to use these situations for self-reflection as effectively as other students.

While he was willing to make the changes the researcher suggested and those of others, a willingness to participate in discussions and critiques would have assisted in his ability to reflect and improve upon his existing work. Given all of this, however, his marks were solid and a good reflection of John's work over the term.

John's CES score was 39 points out of 50. Considering the original research questions, John's interview, though very minimal in responses, still provided a snapshot of his engagement in the classroom. John's interview also demonstrated a positive perception of his own engagement and to the instructional method in general. John's self-described experience was positive and reflects a classroom where, despite his natural inclination, actively engaged in his own learning.

John's unique personality makes his expression of the three meta-themes less overt. *Meta-theme 1: Positive Relationships and Affective Climate* was shown through the positive affect of the final video project, though his difficulty with peer interactions continued right through the class, and he did not demonstrate significant positive affect to peer interaction. *Meta-theme 2: Personalized, Student-centered Supported Independence* was evident in John's willingness to work through the challenges he encountered during his projects. This ability increased as the class continued, and John became more comfortable in asking and receiving assistance. He demonstrated *Meta-theme 3: Accelerated Lift and Independent Learning* through his experience with the larger, long-term projects such as the video creation. In them, John demonstrated that he was capable of making independent decisions to improve the quality of his work. The development of a solid structure of skills served John well as he began his final project, creatively adapting one of the exemplars,

and coming up with a new project. Through this project, and the revisions made to it, John demonstrated that he achieved accelerated lift in his learning.

Summary of Group Results

Any experienced teacher can tell you that no matter how well-planned a course may be before it begins, the class instruction is as changeable as the students who ultimately inhabit that classroom. In the case of this study, that reality couldn't be more obvious. While the eight students selected for the study fit the various niches in the template of high and low engagement and high and low academic achievement (see Table1 for the Sample Matrix), their individual personalities provided a far more complex picture of the classroom. The personal challenges that each student encountered as they experienced the class gave far more insights into the possible implications of the instructional method used, and the impact of the class on student engagement than the simple CES scores ever could. Their failures, as much as their successes, inform the larger concepts behind the original research questions.

In terms of themes, the student profiles highlight and elaborate that one of the main thematic subtexts of Theme 9: Student-centric Coping and Thriving Methods and Theme 10: Personal Challenges was the whole issue of changing from traditional teacher-centred learning to the very new structure and intellectual process required by student engaged, independent learning. The individual hurdles each unique type of student had to work through with differentiated support, mentoring, and coaching from the teacher, further illustrates a deeper understanding of both of these themes and the meta-themes of *Meta-theme 1: Positive Relationships and Affective Climate, Meta-theme 2: Personalized,*

Student-centered Supported, and *Meta-theme 3: Accelerated Lift and Independent Learning.*

All eight interviews clearly showed that students learning in a classroom where the video creation unit was taught through student-centered instruction did perceive the classroom climate as engaging. The interviewees spoke at length about their final video projects and, without exception, the positive nature of this experience. Even the least engaged students of the group, Mike and Allen respectively, described their positive experiences within the classroom, and in completing the final video project. Peer affect and interpersonal relationships appeared in each interview, providing insights into *Meta-theme 1: Positive Relationships and Affective Climate.* Through the development of the relationships in the classroom, students found support in their experiences, and interactions were impacted in a positive manner.

Not all of the experiences, however, were positive. Personal challenges, difficulties with the video project, and individual frustrations were also part of the group's experience. *Meta-theme 2: Personalized, Student-centered Supported Independence* was seen in the independent inquiry element of the classroom, as well as the individual problems that all students in the classroom experienced. The frustrations were just as often tied to the difference in the instructional approach, such as with Allen and Britney, as to the editing work itself, as with Candice and Mike. Once students understood the expectations, however, and knew how to manage the instructional approach used in the classroom, they found success in the New Media course. It was the mind shift from a traditional classroom, to one where Accelerated Lift was the approach used, that appeared to be the stumbling

block for many. By developing personalized coping mechanisms, individuals in the classroom were able to adapt to the difficulties they encountered.

The student-centered video project, and the larger classroom structure which facilitated this project were noted by all interview participants in *Meta-theme 3: Accelerated Lift and Independent Learning.* The classroom environment was perceived in a positive manner, as was the larger structure of scaffolded assignments, building to a larger project. The feedback from the technology also impacted students' perceived engagement, as the class worked through an increasingly difficult series of activities, in preparation for their final video project. The one area which, interestingly, became an issue was the concept of freedom in the final project, and the independent learning. Students most adept and comfortable in a traditional classroom had more difficulty adapting to this model of instruction, though their final results, such as with Allen and Britney, showed that the experience had been positive. They had excelled despite their original concerns. For other students, such as Candice and Mike, for whom traditional classrooms were not effective, the flexible learning environment proved particularly effective.

A second question that this study addressed was the question of whether or not students taught within a classroom where the twenty-first century learning approach was embedded in the instruction of video creation would perceive their own engagement in the classroom task of video-creation in a positive manner. Without exception, the response was overwhelmingly positive. Despite the wide variation in student engagement levels, even the least engaged students spoke of their experiences in a pleasant light. Both interview results and CES norms provided clear evidence that students within the research classroom

perceived their engagement in a positive manner. Looking back on the study itself and comparing the engagement norms (see Table 9) it's intriguing to ask why that occurred.

There seemed to be a particular set of circumstances that affected the students involved in the study and their individual perceptions of their own engagement. To begin, the students who were most comfortable with traditional classroom approaches were those in the high-academic, AP stream. These students, Allen and Britney, found the transition to a non-traditional model of instruction used in the research classroom particularly challenging, though both of them were successful in making the shift of perception. Both their interviews and their classroom work reflected the difficulty in managing the new learning model and classroom expectations, with the challenges it posed for them. Interestingly, though each of those students had difficulty with it, both Allen and Britney ultimately excelled within this new framework. Other students, for whom the traditional classroom structure posed difficulties, such as Mike and Tamara, found success in the non-traditional approach to New Media. Tamara's natural talkativeness became a beneficial aspect in class discussions, assisting others in their ability to discuss their work. Mike's antagonistic personality was diverted by the flexible structure which allowed him to move around without penalty. Though he still experienced difficulties working in the classroom, the fact that he was able to succeed at all, given his volatile personality and history of aggression, speaks to the positive nature of the non-traditional New Media room.

The pre-existing work habits, which students had upon entering the class, were yet another set of circumstances which affected the students in the study. Students who were already independent learners, like Jean and Hank, found it particularly easy to transfer this learning mode to the instruction used in the class. Jean's concerns on the first day were

resolved as she gained confidence during the small, scaffolded assignments. Hank's change

from doing the exact assignment, and nothing more, changed as he grew to understand the

concept of Critical Engagement. His willingness to seek out the assignments before class,

and to go back to these directions when unsure ensured his success. Both these pre-existing

work habits assisted Hank and Jean, whereas students who already had learning difficulties,

like Candice and Mike, had more trouble adapting to this method. As the classroom

teacher, it became the researcher's task to find ways to assist those students who were

struggling with developing skills to succeed within the classroom's framework. For

Candice, that meant pushing her to become involved with the group assignments. For

Mike, it meant hand-picking his group members and dealing with outbursts in a manner

that limited Mike's reactions. The pre-existing classroom structure, with its flexible

learning spaces and scaffolded instruction, certainly helped with this, but individualization

for each student was also used extensively in order to ensure their success.

Another set of circumstances which affected students in this study were their

personalities, moods, and openness to interaction and collaboration. As mentioned before,

John's extreme shyness became an issue for interaction with other class members. The

researcher was concerned that by insisting John become involved in class interactions, that

she would negatively impact John's engagement in the class, but quite the opposite was

true, as he demonstrated high levels of engagement. In his interview, however, John's

unwillingness (or inability) to discuss his perceptions and opinions at length made it

difficult to ascertain some of his thoughts about the classroom. Mike's social dysfunction

and aggression was another case which impacted students in the study. In his case, the

impact went both directions: to Mike himself, and to those classmates who dealt with him

on a daily basis. With both Mike and John, the researcher was able to mitigate some (though not all) of these issues by hand-selecting group members and by providing one-on-one support during the class work for both of them. In each case, the experience in the New Media classroom was still a positive one for these unique students, but their particular personalities did affect their experience of the classroom in general. In each case, however, their interviews demonstrated a positive perception of their own engagement and of the class as a whole.

The primary difference the researcher noted between male and female students was that, as a whole, female students scored higher on the CES questionnaire. (This wasn't reflective of the interview results, as both males and females responded with equal amounts of enthusiasm to the questions posed.) One possible explanation for this difference is that, given that I'm a woman teaching in a technical field, the female students in the class might be inclined to respond more positively to the climate in the classroom in regards to the CES whereas the males in the class might be less inclined to identify with the researcher in this same way. This is entirely conjecture, however, since there is no other evidence beyond the CES scores to even suggest there was a difference at all. The researcher suspected it was far more likely that given the very small group involved in the study that this variation may simply be due to the makeup of this particular group.

The differences between high and low achieving students were not statistically significant, though the key differences are noted here. Interestingly enough, the two lowest CES scores in the class came from one of the highly academic AP students, Allen who scored 32, and the very lowest, non-academic student, Mike who also scored 32. Overall, there was a wide variety of self-perception of engagement from the students in the class,

though as a general rule, the students in the research classroom scored significantly higher than in the CES norms (see Figure 2).

Taken as a whole, one of the most significant findings was the impact of teacher involvement during the adaptation of student instruction. This key aspect of the instructional method, commonly defined as differentiation, was obviously a crucial part of the structure of the New Media classroom. Each student involved in this study received varying degrees of differentiation which was specific to their needs. When particular aspects of the instruction were not working for individual students, it became the researcher's job to find ways to alter the instruction to make it work. For Tamara, this meant redirecting her when she became distracted and lost. For Candice, it required leaving the larger group instruction in order to give one-on-one attention to her skills in order to keep her working with the class. For Jean, it involved providing reassurance and support during the first stages of skill-building when she felt overwhelmed by the class. For John, it involved hand-picking group members and assisting him in locating groups to work with when he found himself incapable of involvement due to his exceptional shyness. For Britney, it included placing her in peer groupings which challenged her own perceptions and understandings, raising the achievement bar for her, until she was capable of challenging herself. For Hank, it required assistance in preparing him for the larger project, by providing supplementary instruction, and by assisting him in the development of advanced techniques for his final project. For Allen, it meant a number of one-to-one discussions to assist him in making the transition from passive learning to independent inquiry. For Mike, it involved adapting all of the instructional practises in order to maintain a positive climate in the classroom.

These teacher interventions and adaptations of the expectations were particularly important in ensuring that the experiences of those students were a success. Without this constant adjustment, fine-tuning, and revision to fit the particular needs of each student in the classroom, the instruction might have failed, and the engagement levels would have dropped. From direct instruction, to coaching, to mentoring, to a hands-off approach, the various roles played by the researcher were all key to student progress. The instruction had to adapt and change as the student needs evolved, and the researcher played various different roles for different students. In this way, each student was truly able to move at their own pace, with their own needs being met along the way. Ultimately, this was the largest factor in ensuring that each element of the class, including *Meta-theme 1: Positive Relationships and Affective Climate, Meta-theme 2: Personalized, Student-centered and Supported Independence* and *Meta-theme 3: Accelerated Lift and Independent Learning* worked in a coordinated way to bring these students to their own experience of lift. Left on its own, the structure would not be enough to ensure its success.

Further Research

Student engagement is crucial to student success no matter what the subject matter. Given the success of this study, the results of the student interviews, and the teaching method used in the research classroom, the next step for this particular vein of study would be to explore the application of this method to other classrooms. As Hattie (2003) suggests, the focus should be on "the quality of teaching rather than the quality of the students that a school receives" (p. 19). One possible instructional adaptation is the application of Accelerated Lift to other courses. By moving beyond the New Media classroom to other, core classes, the true impact of this instructional approach, with student-centered, self-

generated projects and flexible classroom structures, could be ascertained in terms of the curriculum–based learning outcomes experienced therein.

In the researcher's particular teaching load, she has had the opportunity to use this teaching method in her English 10-2 classroom, following the same, basic principles, with equally positive results. The differentiated instruction and increasing challenge of the scaffolded instruction have been positive in building skills in English Language Arts. In this class, the researcher incorporated the same classroom structure, where basic skills were built with small, scaffolded assignments, and group interactions were included for self-reflection and cooperation. At the end of each unit, the students created a self-generated final project to demonstrate their understanding of the curriculum through a variety of means. These projects were as divergent as those created by the New Media students, but were focused around the learner outcomes of the English Language Arts curriculum.

Having attempted Accelerated Lift in this situation, the flexible, differentiated instruction appears to provide positive experiences for the students involved. Further study, however, would be needed to ascertain with any degree of statistical significance if these general perceptions have any basis in fact and, indeed, if 'traditional' achievement is maintained.

Implications

As both instructor and researcher, one of the most important developments of this study was in constructing a clear, theoretical understanding of what was occurring in the classroom during the student-centered video creation unit. The concept of Accelerated Lift and Independent Learning as an instructional methodology is one which is particularly intriguing as it lends itself to application far beyond the New Media classroom. It is a

teaching model which moves from a very tightly controlled, skill-building approach, through coaching of students toward independence, all the way to student-centered autonomy and creativity. To describe it, the structure found in Figure 1 will be used, followed by a discussion of each of the Meta-themes as they appear within the process of instruction.

Positive Relationships and Affective Climate (Meta-theme 1). The first structure within a classroom using Accelerated Lift and Independent Learning was the creation of a basic foundation of trust and support. In the New Media classroom this involved creating positive relationships with students, and assisting in the development of peer communication through small, group projects and discussion. Through positive interpersonal interactions, supported peer collaboration, and a warm, inviting atmosphere, the students began to trust one another. Until this supportive, positive atmosphere had developed, students would not risk themselves in order to attempt projects that went beyond their comfort zone.

The physical space of the research classroom was full of reminders of the importance of this aspect of the class. A poster on one wall announced "the only rule in this classroom is RESPECT: for yourself, for others, for the equipment" and this truly encapsulated this aspect of the course instruction. Other physical and non-physical elements assisted in the development of this positive atmosphere. The discussion space encouraged students to interact in a friendly, non-confrontational way, while small, easily-completed projects allowed them to work together without the stresses of final projects, and think-pair-share moments built interpersonal connections between students. With each

small step, the trust, peer support, and positive affect of the classroom developed until, by the end of the course, the true impact of the student experience could be felt.

The positive relationships and affective climate became the foundation of the rest of the learning that occurred in the classroom. In Figure 1, this structure forms the runway on which the plane can build up speed. It smoothes the issues of negative interrelationships, assists students in gaining confidence (momentum) in their own abilities and prepares them to ultimately take flight.

Personalized, Student-centered Supported Independence (Meta-theme 2). The second structure within a classroom using Accelerated Lift and Independent Learning as the teaching method was the process through which students are encouraged toward independent learning and personalization. As many of the interviews showed, this doesn't necessarily occur easily, since many students have little experience with generating their own projects or working independently in a traditional classroom. By starting with a very structured, outcome-based set of assignments and then moving, gradually, toward independence, students were able to learn how to adapt to this instructional method while still working on class projects. The independence was developed over the term, rather than rushed into, with each step given plenty of support along the way.

Independent inquiry helped the students to develop an understanding of the coursework, along with a metacognitive understanding of their own learning processes. This process was gradual, and very similar to a plane gaining speed as it moves down the runway. The first assignments were simply to provide students with a basic set of skills for editing, while the collaborative projects assisted them in reviewing and discussing the potential improvements to their own work. At each stage, students had to manage the

increasing challenges, until they were finally able to manage and succeed. Each student learned to cope, adapt, and thrive in their own way. Some, like Mike, took longer to make this adjustment than others, but the individualization of the instruction kept the increasing challenges manageable for him.

Though each student reached the point of lift-off at a different moment, the gradual transition from a receiver of information, to an active developer of their own knowledge was essential to the success of this approach. Like a plane reaching that critical balance of thrust and lift, students were finally able to move past the drag that had kept them on the ground up to that point, achieving lift.

Accelerated Lift and Independent Learning (Meta-theme 3). The final structure within a classroom using Accelerated Lift and Independent Learning as the teaching method were the elements which allowed students to truly work at their own pace, on self-generated projects, within their own timeframe, while using their own learning approaches. Some of these items were physical in nature while others were related to the choices that students are given regarding their own learning. Each of them formed an important part of the structure of Accelerated Lift.

The research study classroom had flexible learning spaces which meant that it provided students with a variety of learning environments that they might opt to use. Some students chose to work independently at the computers, while others elected to use a laptop at the discussion space so that they could talk to their peers, and still others worked at the tables to work collaboratively on group projects. (Most students, in fact, used more than one of the spaces each day.) The physical structure of the classroom was as important to the

class' success as the option to move around. If that physical structure didn't exist, then the students would have already been limited in what they could do.

Students also had the option to pick and choose the type of project they wanted to complete. This freedom allowed them to narrow their final projects onto a topic which interested them. This was not without a foundational structure, however, as the entire process of scaffolded instruction, in place in the classroom, had already prepared them for the eventuality of working independently. With each new assignment, small, daily assignments increased in difficulty level so that, a few weeks into the course, the expectations for students had moved them toward a high level of independence. This process, with the development of a skill set and the confidence-building that went along with it, helped students transition from passive learners to independent, engaged participants.

The role that the teacher played varied throughout the course and for each student. At the beginning, when the challenges were high and confidence was low, the researcher took on the role of coach, leading the students step-by-step through the process and cheering on their successes. Weeks into the course, the researcher had become a mentor, providing insights and observations, while leaving most of the actual hands-on learning to the student themselves. By the time the students were working on their final projects, the researcher had stepped into the role of consultant and advisor, keeping the students on task, and focused, while providing feedback, but leaving most of the decision-making entirely up to the students themselves. The final stage of this process took place when the students took complete ownership of their own learning. At this point, the researcher had become an

observer, rather than a participant. The students no longer needed the constant help, as they'd learned to fly on their own.

The researcher's original role as co-pilot had transitioned into an air-traffic controller, watching and ready if they needed assistance, but not actively participating. In the best possible way, the researcher was no longer needed. The students had learned to fly on their own.

Discussion of the Instructional Method

The Challenge of the Non-traditional Classroom. For the majority of students in the research classroom, the approach used in this research study worked very well, but there were some students whose engagement levels were relatively lower. A question which must be posed is whether it was worthwhile to use this approach if there were 20% of students who fell into the lower end of engagement. As discussed in the section on Accelerated Lift and Independent Learning, the researcher adapted and modified the instruction based on the needs of the different students. For someone like Mike, for instance, forcing him to work with peers who he didn't know, nor like, would have resulted in a negative experience for everyone involved. By understanding Mike's particular situation, inherent abilities, and challenges, the researcher was able to adapt her particular expectations to fit Mike's unique needs.

Allen was another student who found this particular instructional approach very challenging. In his case, it was because of the inclusion of Critical Engagement as part of the course expectations, and the demands this put on him. The researcher developed a rubric for "Critical Engagement with the Media" along with Dr. J. Rahn (see Appendix R), and this became vital in assisting students like Allen in understanding what was expected.

By providing the details of his learning in rubric format, he was able to see exactly what he needed to do in order to succeed.

The concept of critical engagement and self-critique self-evaluation was another challenge for many students, but potentially one of the most important aspects of this instructional approach. Throughout my years of teaching with this method, I've observed that it is often the highly academic students who find it most difficult to shift into this form of learning, since they are used to being provided with very narrow parameters for assignments. Considering the nature of today's every-changing work market, and the requirements of students to be flexible workers, it seems to me that as teachers we are doing a disservice by not challenging these highly academic students.

In a recent New Media class, the researcher had a student very similar to Allen, who began the course very frustrated by the open-ended expectations for the final project, but who took the critical engagement rubric to heart. In the first weeks of class, this young man demanded to know each and every thing he had to do, wanting to fulfil the minimum requirements and nothing more. By the last week of class, however, he'd gotten to a point where he was calling me over to show me the "cool thing he found" while researching tutorials for his own use, without prompting. His major assignments had transformed into challenging, self-generating projects that took him far beyond what the rest of the class was doing. The transition from frustrated student, demanding she give him the right answer, to highly-engaged and excited learner was well worth the extra time it took in order to assist him to find his own success. His learning had gone far beyond simply learning the curriculum, to becoming aware of his own abilities, and of how to challenge himself.

Adapting the Model. The process of instruction described in the study is one that challenges the classroom teacher to find ways to adapt and alter his or her instruction in accordance to the students' needs. In the case of the New Media classroom involved in this study, that meant shifting expectations according the needs of the particular students involved. For some, like Jean, the alterations were minimal, while for others, like Mike, it was a significant process encompassing each and every interaction the researcher had with the student. Beyond this, the larger classroom structure of graduated instruction leading to independent learning, freedom of choice regarding projects, and the flexible learning space all became part of the environmental support system for this model of instruction. The supportive climate and the affect were developed through specific collaborative assignments, the inclusion of discussions, and critiques. From here, students developed their own methods to cope with the increasing challenges, ultimately reaching their own moment of 'lift' as they took control of their own learning experiences. The question then becomes: Can this work for all students?

My immediate reaction, given that question's broad inclusion is that no instructional model will ever be the perfect choice for every single student. There are situations where students have extremely exceptional needs for whom "accelerated lift" would simply be too difficult. I will argue, however, that these situations are rare.

If we change this question to: Can this work for all students in a regular classroom? then my response changes to a wholehearted "yes". This is not to say that exceptional students, and those who fall into the extreme ends of the regular classroom setting, don't have unique needs. They do. Students like Mike and John are good examples of the extremes seen in a regular classroom setting, and in both of these cases, these students were

still capable of coping and gaining an important level of independence within this model. The crucial aspect, however, is that the instructor must take into account the needs of these unique students and adapt the instruction to best fit their particular challenges. These adaptations are approaches that can be used in all classrooms. This form of differentiation is absolutely vital if the method of student-centered engagement is to be effective.

Instructional adaptations must be made for all atypical students, and in saying that, I actually mean *all students,* since every individual has his or her own unique needs which must be addressed. In order for Accelerated Lift to actually occur, it's essential that instruction is adapted to fit the particular learning style of the students involved. For the highly academic students in the study, this involved creating a clear educational support structure through the use of rubrics, exemplars, and written assignments. Low academic students, by comparison, may have similar issues, but for different reasons. Specialized instruction, such as individual re-teaching, one-to-one assistance, and peer mentoring, are all effective tools for these students. By recognizing, and adapting to, the various needs of the students in a classroom, the teacher can assist these students in doing well and becoming more independent as learners.

Within the classroom, there are also bound to be students who fall within a wide range of interpersonal as well as social skills. Hand-selecting groups, taking an active role in the first peer interactions in the classroom, and providing the support to introverted students, can assist them in making the transition into peer exchange and collaboration. For those students struggling with learning challenges, special needs, and attention deficit and hyperactivity disorder (ADHD), the Accelerated Lift classroom provides a unique opportunity to fit the approach to the specifics of their learning abilities. The flexible set up

of the classroom can assist those students in excelling despite these challenges. The onus falls on the classroom teacher to make these adaptations to the assignment, the instruction, and the approach in order to address the needs of each student.

Lastly, the very atypical students, such as those struggling with extreme behavioural challenges, must be provided with an environment which supports not only their success, but also the continued success of those students who share the classroom with them. As Mike's particular case demonstrated, this isn't something that necessarily happens easily or at once. It is, however, integral to the success of the entire classroom that these atypical students are able to achieve without impeding their peers. Adaptations to instruction, discipline, and the development of a clear system for the classroom are all particularly effective in dealing with these students. As the research in this study showed, every interaction with Mike was adapted in order to ensure his success without damaging the positive climate of the classroom.

Visible Teaching and Learning. The concept of independent learning in the classroom is not a new one, though it has taken many different names along the way. John Hattie (2009) provided a description of exactly this type of learning when he wrote:

> Visible teaching and learning occurs when learning is the explicit goal, when it is appropriately challenging, when the teacher and the student both (in their various ways) seek to ascertain whether and to what degree the challenging goal is attained, when there is deliberate practice aimed at attaining mastery of the goal, when there is feedback given and sought, and when there are active, passionate, and engaging people (teacher, student, peers, and so on) participating in the act of learning. (p.23)

The issue, however, is that so often we as teachers say we want to accomplish these things, and then we go back and teach exactly the same way that we were taught. The problem with that approach is that society, children, and the world have all changed in the time between our childhood and now. The end result is that we do *not* engage our students, and with each passing day, the chance to impact student learning dwindles.

By broadening our instructional approach, rather than narrowing it, we can focus on the larger life skills that engender life-long learners. "It is clear that there is information children need to learn facts, figure, concepts, insights, and understandings," (Galinsky, 2010, p. 1) and our education system focuses ample attention on accomplishing this. Unfortunately, this is sometimes at the cost of another element of education: life skills. To teach these skills, a structure must be implemented that supports their instruction. These life "skills are not only important for children; we as adults need them just as much," (Galinsky, 2010, p.2). Teaching children to be effective lifelong learners should be considered with the same fervour as to learning the structured curriculum. Student engagement is vital to Galinsky's seven essential skills for twenty-first century learners. Focus and self control, perspective taking, communicating, making connections, critical thinking, taking on challenges, and self-directed, engaged learning are crucial to student success, not just while students are in school, but beyond.

To be truly effective educators we need to reconsider our roles. One way this can be done is to encourage students to be learners rather than receivers of knowledge. We need to create a situation where student engagement can be fostered through class structure, the environment, and through twenty-first century teaching methods. Students need to have the experience of struggling, adapting, and conquering challenges, to try and fail, but to do it in

an environment where it is okay to take risks. In this way we can ensure that students will be willing to try again and again, until they do actually succeed. We need, as teachers, to be less the 'sage on the stage' and more the behind-the-scenes supporter. By providing adequate support and increasing challenges, our students can, and will, develop the ability to be in control of their own learning. In many ways, we need to step back and allow the magic to happen without us directly involved.

Young (2005) asserts that "students will be intrinsically motivated only for activities they find intrinsically interesting" (p. 38). Given that the process of engagement is highly personal, a classroom must emphasize active student participation in the learning process and construction of personal understandings (metacognition). This is through the creation of a supporting classroom environment. In it, creative freedom can be structured and organized. By developing an environment and instructional practise which teaches students how to manage their own freedom, the classroom structure can support creative license. We can teach the curriculum and allow our students to be creative too. The successes of students who have taken New Media certainly underscore this belief.

A few years ago, several students in the New Media class decided to set up their own print-shop online, creating an online business after discovering how readily their digital manipulation and printing skills could be applied to real life. Many other students from have taken their editing skills into other fields. New Media students who have gone onto other classes have asked their new teachers if they could do creative final projects as an alternate to the standard choices. The willingness to ask for this option is just as telling as the videos, posters, and animations they have created. Most powerfully, however, are the testaments by students, much like Mike, who struggled to find any success at all in school,

and yet come back to visit years later to say: "I loved your class." These students are the reason I teach.

Conclusion

From my current perspective, months after the fact, many of the details of the research classroom have begun to fade, but the words from the student interviews still ring true. I'm confident in stating that the students who were in my New Media classroom, where the video creation unit was taught through student-centered instruction, did indeed perceive the classroom climate as engaging. I am also confident in stating that the students in the New Media classroom where a twenty-first century learning approach was embedded in the instruction of video creation perceived their own engagement in a positive light. The differences between high academic and low academic students, and males and females were not significant enough to suggest a trend, though within the research classroom, females tended to demonstrate higher levels of engagement as measured by the CES. In general, the results showed a classroom where the levels of engagement were above the norm (see Table 9, and Figure 2) and students did perceive themselves as engaged in the process of learning.

While the overall trend was a positive experience, and high levels of engagement in the New Media classroom, some students found the instructional approach to be challenging, and that impacted their level of engagement. Generally, the students described a very positive classroom experience where they were allowed freedom to choose projects which interested them, could work when and where they wanted, and which, in the end, left them with a positive affective experience of the course as a whole.

Final Thoughts

This study provides strong evidence that the instructional method used in this particular New Media classroom had a positive impact on the students involved in the study. Students spoke of their learning in regards to their own experiences. In each of the interviews, the three elements of engagement: cognitive, behavioural and emotional; were described and expanded on in students' own terms. The three meta-themes which emerged from the student interviews were reflective of this three-pronged perception of engagement.

Meta-theme 1: Positive Relationships and Affective Climate described the emotional level of engagement, where the affective domain was addressed and emotional needs met. *Meta-theme 2: Personalized, Student-centered Supported Independence* addressed the behavioural aspect of engagement. In it, the students were physically engaged in their tasks, an experience which was supported by the classroom environment itself. Lastly, *Meta-theme 3: Accelerated Lift and Independent Learning* encompassed the cognitive element of engagement. Through the carefully constructed instructional approach which used scaffolded instruction, eventually leading to student-centered independence, students' engagement in the class was supported.

The goal of this research was to create a clear snapshot of what was happening in one New Media classroom, in one school year, and it has provided that. Beyond this are numerous potential opportunities to address this educational approach within other fields of study. Future research could investigate whether the concept of Accelerated Lift and Independent Learning is applicable to other classrooms. The potential benefits that student-centered, supported independence, flexible learning spaces and flexible learning environments can have on student engagement are well worth consideration, since many of

the elements are easily transferred. Considering the current push in education to promote critical thinking, and metacognition, as part of twenty-first century learning, the concepts in Accelerated Lift are as relevant to a Biology classroom as they are to a New Media classroom. By allowing our students the freedom to approach learning in their own way, we empower student success and engagement. By helping them to become engaged participants in their own education, we teach them to actively seek out opportunities to learn. And that, ultimately, is the most important thing that any teacher can hope to instil in a student.

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Appendices

Appendix A: Classroom Environment Scale, Form R

Classroom Environment Scale

Form R

Item Booklet

Edison J. Trickett

Rudolf H. Moos

Instructions

There are 90 statements in this booklet. They are statements about high school and junior high school classrooms. You are to decide which of these statements are true of your classroom and which are false.

Make all your marks on the separate answer sheet. If you think a statement is *True* or mostly *True* of your class, make an X in the box labeled T (true). If you think the statement is *False* or mostly *False* of your class, make an X in the box labeled F (false).

Please be sure to answer every item.

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Work Across →

1. Students put a lot of energy into what they do here.

2. Students in the class get to know each other really well.

3. This teacher spends very little time just talking with students.

4. Almost all class time is spent on the lesson for the day.

5. Students don't feel pressured to compete here.

6. This is a well-organized class.

7. There is a clear set of rules for students to follow.

8. There are very few rules to follow.

9. New ideas are always being tried out here.

10. Students daydream a lot in this class.

11. Students in this class aren't very interested in getting to know other students.

12. The teacher takes a personal interest in students.

13. Students are expected to stick to classwork in this class.

14. Students try hard to get the best grade.

15. Students are almost always quiet in this class.

16. Rules in this class seem to change a lot.

17. Students who break rules in the class are sure to get in trouble.

18. What students do in class is very different on different days.

19. Students are often "clock-watching" in this class.

20. A lot of friendships have been made in this class.

21. The teacher is more like a friend than an authority.

22. We often spend more time discussing outside student activities than class-related material

23. Some students always try to see who can answer questions first.

24. Students fool around a lot in this class.

25. The teacher explains what will happen if a student breaks a rule.

26. The teacher is not very strict.

27. New and different ways of teaching are not tried very often in this class.

28. Most students in this class really pay attention to what the teacher is saying.

29. It's easy to get a group together for a project.

30. The teacher goes out of his or her way to help students.

31. Getting a certain amount of classwork done is very important in this class.

32. Students don't compete with each other here.

33. This class is often in an uproar.

34. The teacher explains what the rules are.

35. Students can get in trouble with the teacher for talking when they're not supposed to.

36. The teacher likes students to try unusual projects.

37. Very few students take part in class discussions or activities.

38. Students enjoy working together on projects in this class.

39. Sometimes the teacher embarrasses students for not knowing the right answer.

40. Students don't do much work in this class.

41. A student's grade is lowered if he or she gets homework in late.

42. The teacher hardly ever has to tell students to get back in their seats.

43. The teacher makes a point of sticking to the class rules.

44. Students don't always have to stick to the rules in this class.

45. Students have very little to say about how class time is spent.

46. A lot of students "doodle" or pass notes.

47. Students enjoy helping each other with homework.

48. This teacher "talks down" to students.

49. We usually do as much as we set out to do.

50. Grades are not very important in this class.

51. The teacher often has to tell students to calm down.

52. Whether or not students can get away with something depends on how the teacher is feeling that day.

53. Students get in trouble if they're not in their seats when the class is supposed to start.

54. The teacher thinks up unusual projects for students to do.

55. Students sometimes present something they've worked on to the class.

56. Students don't have much of a chance to get to know each other in this class.

57. If students want to talk about something this teacher will find time to do it.

58. If a student misses class for a couple of days, it takes some effort to catch up.

59. Students here don't care about what grades the other students are getting.

60. Assignments are usually clear so everyone knows what to do.

61. There are set ways of working on things.

62. It's easier to get in trouble here than in a lot of other classes.

63. Students are expected to follow set rules in doing their work.

64. A lot of students seem to be only half awake during this class.

65. It takes a long time to get to know everybody by their first name in this class.

66. This teacher wants to know what students themselves want to learn about.

67. This teacher often takes time out from the lesson plan to talk about other things.

68. Students have to work for a good grade in this class.

69. This class hardly every starts on time.

70. In the first few weeks the teacher explained the rules about what students could and could not do in this class.

71. The teacher will put up with a good deal.

72. Students can choose where they sit.

73. Students sometimes do extra work on their own in the class.

74. There are groups of students who don't get along in class.

75. This teacher does not trust students.

76. This class is more a social hour than a place to learn something.

77. Sometimes the class breaks up into groups to compete with each other.

78. Activities in this class are clearly and carefully planned.

79. Students aren't always sure if something is against the rules or not.

80. The teacher kicks students out of class if they act up.

81. Students do the same kind of homework almost every day.

82. Students really enjoy this class.

83. Some students in this class don't like each other.

84. Students have to watch what they say in this class.

85. The teacher sticks to classwork and doesn't get sidetracked.

86. Students usually pass even if they don't do much.

87. Students don't interrupt the teacher when he or she is talking.

88. The teacher is consistent in dealing with students who break the rules.

89. When the teacher makes a rule, he or she means it.

90. In this class, students are allowed to make up their own projects.

Appendix B: Classroom Environment Scale, Answer Sheet

Classroom Environment Scale

Answer Sheet

Look at your Classroom Environment Scale item booklet and check the Form printed on it here:

Form R___ I___ E___

Please provide the information requested below.

Your Name_____Age_____

Address _____ Gender: Male Female
(circle)

How long have you been in this school?_____years _____months

How long have you been in this classroom?_____years _____months

Today's Date_____

Now, please read the instructions on the front page of your Classroom Environment Scale Item booklet and be sure that you understand them. When you are ready, read each statement in your booklet and then, in the boxes on page 2 of this sheet, mark T (true) if you think the statement is true of your class, and F (false) if the statement is not true of your class.

Use a heavy X, as in the example: Please use a pencil with an eraser, not a pen. Be sure to match each number in the booklet with each one on this sheet.

	T	X		2
	F	1		X

START HERE

T / F	1	2	3	4	5	6	7	8	9	T / F
T / F	10	11	12	13	14	15	16	17	18	T / F
T / F	19	20	21	22	23	24	25	26	27	T / F
T / F	28	29	30	31	32	33	34	35	36	T / F
T / F	37	38	39	40	41	42	43	44	45	T / F
T / F	46	47	48	49	50	51	52	53	54	T / F
T / F	55	56	57	58	59	60	61	62	63	T / F
T / F	64	65	66	67	68	69	70	71	72	T / F
T / F	73	74	75	76	77	78	79	80	81	T / F
T / F	82	83	84	85	86	87	88	89	90	T / F

----

do not mark below this line

	I	A	TS	TO	C	OO	RC	TC	Inn
R/S									
S/S									

Appendix C: Classroom Environment Scale, Scoring Key

Class Environment Scale Scoring Key

Forms R, I, and E

Line up your completed ☐ CES answer sheet here

Keyed Responses

	I	A	TS	TO	C	OO	RC	TC	Inn
	1 (T)	2 (T)	3 (F)	4 (T)	5 (F)	6 (T)	7 (T)	8 (F)	9 (T)
	10 (F)	11 (F)	12 (T)	13 (T)	14 (T)	15 (T)	16 (F)	17 (T)	18 (T)
	19 (F)	20 (T)	21 (T)	22 (F)	23 (T)	24 (F)	25 (T)	26 (F)	27 (F)
	28 (T)	29 (T)	30 (T)	31 (T)	32 (F)	33 (T)	34 (T)	35 (T)	36 (T)
	37 (F)	38 (T)	39 (F)	40 (F)	41 (T)	42 (T)	43 (T)	44 (F)	45 (F)
	46 (F)	47 (T)	48 (F)	49 (T)	50 (F)	51 (F)	52 (F)	53 (T)	54 (T)
	55 (T)	56 (F)	57 (T)	58 (T)	59 (F)	60 (T)	61 (T)	62 (T)	63 (F)
	64 (F)	65 (F)	66 (T)	67 (F)	68 (T)	69 (F)	70 (T)	71 (F)	72 (T)
	73 (T)	74 (F)	75 (F)	76 (F)	77 (T)	78 (T)	79 (F)	80 (T)	81 (F)
	82 (T)	83 (F)	84 (F)	85 (T)	86 (F)	87 (T)	88 (T)	89 (T)	90 (T)

↑ Line up your completed CES answer sheet here

Sample

Class Environment Scale Scoring Key Instructions:

1. Position your completed answer sheet to the right of the scoring key so that each horizontal row lines up.

2. Working across each row, use a colored pen or pencil to highlight each given response on the answer sheet that matches the keyed response on the answer key.

3. Count the number of highlighted responses in each column of the answer sheet, and enter this raw score in the R/S boxes at the bottom of the answer sheet.

4. Convert these raw scores to standard scores (S/S) using Appendix A the CES manual.

Appendix D: Classroom Environment Scale, Profile

Classroom Environment Scale Profile

Circle form used   R   I   E

Name _____   Date _____

Comments _____

_____

_____

_____

Standard Scores	I	A	TS	TO	C	OO	RC	TC	Inn	Standard Scores
100										100
90										90
80										80
70										70
60										60
50										50
40										40
30										30
20										20
10										10
0										0
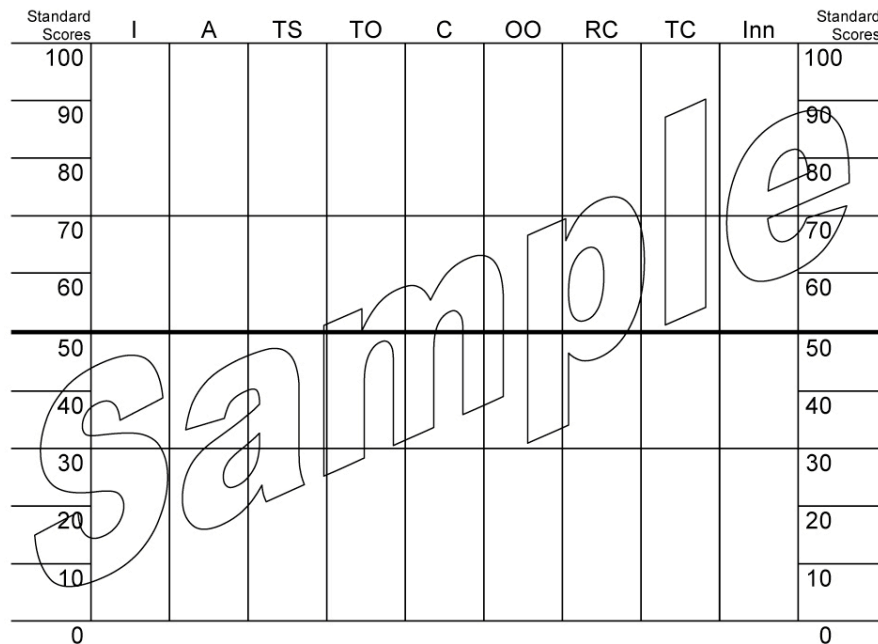
	I	A	TS	TO	C	OO	RC	TC	Inn
R/S									
S/S									

Appendix E:Classroom Environment Scale, Scoring Sheets

Table A. Form R Raw Score to Standard Score Conversion Table for Classroom Means

Raw Score	Involvement		Affiliation		Teacher Support		Task Orientation		Competition	
	Stdnt Norms	Tchr Norms	Stdnt Norms	Tchr Norms	Stdnt Norms	Tchr Norms	Stdnt Norms	Tchr Norms	Stdnt Norms	Tchr Norms
10.0	76	62	79	62	70	61	73	63	88	69
9.5	73	60	75	59	67	59	70	61	84	67
9.0	70	59	70	57	64	56	67	59	80	65
8.5	68	57	66	55	61	53	64	57	76	62
8.0	65	55	62	53	58	50	60	55	72	60
7.5	62	53	58	51	55	47	57	53	68	58
7.0	60	51	54	49	52	44	54	51	64	56
6.5	57	49	50	47	49	41	51	49	60	53
6.0	54	47	46	44	46	38	48	47	56	51
5.5	52	45	42	42	42	35	45	45	52	49
5.0	49	44	38	40	39	32	42	43	48	47
4.5	46	42	34	38	36	29	39	41	44	46
4.0	44	40	29	36	33	26	36	39	40	42
3.5	41	38	25	34	30	23	32	37	36	40
3.0	38	36	21	31	27	20	29	35	32	38
2.5	36	34	17	29	24	17	26	33	28	36
2.0	33	32	13	27	21	14	23	31	24	33
1.5	30	30	9	25	18	11	20	29	20	31
1.0	28	29	5	23	15	8	17	27	16	29
0.5	25	27	1	21	12	5	14	25	12	27

Table A. Form R Raw Score to Standard Score Conversion Table for Classroom Means (continued)

Raw Score	Order and Organization		Rule Clarity		Teacher Control		Innovation	
	Stdnt Norms	Tchr Norms	Stdnt Norms	Tchr Norms	Stdnt Norms	Tchr Norms	Stdnt Norms	Tchr Norms
10.0	72	63	79	60	88	77	79	68
9.5	69	61	75	58	85	75	76	66
9.0	67	59	72	55	82	73	73	64
8.5	64	57	68	53	79	71	70	62
8.0	61	55	65	51	76	68	67	60
7.5	59	53	61	48	73	66	64	58
7.0	56	51	58	46	70	64	62	56
6.5	53	49	54	44	67	62	59	54
6.0	51	47	51	41	64	60	56	53
5.5	48	45	47	39	61	58	53	51
5.0	45	43	43	37	58	55	50	49
4.5	43	41	40	34	54	53	47	47
4.0	40	39	36	32	51	51	44	45
3.5	37	37	33	29	48	49	41	43
3.0	35	35	29	27	45	47	38	41
2.5	32	33	26	25	42	45	36	39
2.0	29	31	22	22	39	43	33	38
1.5	27	29	19	20	36	41	30	36
1.0	24	27	15	18	33	38	27	34
0.5	22	26	12	15	30	36	24	32

Table B. Form S Raw Score to Standard Score Conversion Table for Classroom Means

Raw Score	Involvement		Affiliation		Teacher Support		Task Orientation		Competition	
	Stdnt Norms	Tchr Norms	Stdnt Norms	Tchr Norms	Stdnt Norms	Tchr Norms	Stdnt Norms	Tchr Norms	Stdnt Norms	Tchr Norms
4.0	74	59	73	59	68	60	68	59	91	66
3.8	72	58	70	57	65	57	66	57	87	64
3.6	69	56	67	56	63	55	63	55	83	62
3.4	67	55	64	54	60	52	60	54	80	61
3.2	65	53	61	53	58	50	57	52	76	59
3.0	62	52	57	51	55	47	54	50	72	58
2.8	60	50	54	49	52	45	52	49	69	56
2.6	57	49	51	48	50	42	49	47	65	54
2.4	55	47	48	46	47	40	46	45	61	53
2.2	53	46	45	44	45	38	43	44	58	51
2.0	50	44	42	43	42	35	40	42	54	50
1.8	48	43	38	41	39	33	37	40	51	48
1.6	45	41	35	40	37	30	35	39	47	46
1.4	43	40	32	38	34	28	32	37	43	45
1.2	41	38	29	36	32	25	29	35	40	43
1.0	38	36	26	35	29	23	26	34	36	41
0.8	36	35	23	33	26	20	23	32	32	40
0.6	34	33	19	31	24	18	21	30	29	38
0.4	31	32	16	30	21	16	18	29	25	37
0.2	29	30	13	28	19	13	15	27	21	35

Table B. Form S Raw Score to Standard Score Conversion Table for Classroom Means (continued)

Raw Tchr	Score	Order and Organization Stdnt	Tchr Norms	Norms	Rule Clarity Stdnt	Tchr Norms	Norms	Teacher Control Stdnt	Tchr Norms	Norms	Innovation Stdnt	Norms	Norms
4.0		70	61		70	57		72	71		74	61	
3.8		68	59		67	55		70	70		71	60	
3.6		66	57		64	53		69	68		69	58	
3.4		63	56		61	51		67	66		66	57	
3.2		61	54		59	49		65	65		64	56	
3.0		59	53		56	47		63	63		62	54	
2.8		57	51		53	45		62	61		59	53	
2.6		55	49		50	43		60	60		57	51	
2.4		53	48		47	41		58	58		54	50	
2.2		51	46		45	39		56	56		52	48	
2.0		49	44		42	37		55	55		50	47	
1.8		47	43		39	35		53	53		47	46	
1.6		45	41		36	33		51	51		45	44	
1.4		42	40		33	31		49	49		42	43	
1.2		40	38		30	28		47	48		40	41	
1.0		38	36		28	26		46	46		37	40	
0.8		36	35		25	24		44	44		35	38	
0.6		34	33		22	22		42	43		33	37	
0.4		32	32		19	20		40	41		30	36	
0.2		30	30		16	18		39	39		28	34	

Table C. Form R Raw Score to Standard Score Conversion Table for Individual Students' Scale Scores

Raw Score Innovation	Involve-ment	Affiliation	Teacher Support	Task Orientation	Compe-tition	Order and Organization	Rule Clarity	Teacher Control	
10	67	65	62	64	72	66	66	73	70
9	64	61	59	60	67	62	62	69	66
8	60	56	55	56	63	58	58	66	62
7	56	52	51	53	58	54	54	62	58
6	53	48	47	49	53	50	50	58	54
5	49	44	43	45	49	47	46	55	50
4	46	39	40	41	44	43	42	51	46
3	42	35	36	37	40	39	38	47	42
2	39	31	32	34	35	35	34	44	38
1	35	26	28	30	31	32	30	40	34

Appendix F: Raw Data Results

Raw Data Results for the CES.

	05BP	03AP	10BP	11AP	16BP	18BY	04BP	09AP	27AG	296AY	21AP	23AG	13BG	19AP	24BP	07BG	Mean
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1		1	1			1		1		1	1	1			0.5625
4	1	1		1	1	1	1	1	1	1	1	1		1			0.75
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1		1	1	1	1	1	1	1	1		1	0.875
7	1	1	1	1	1	1	1	1	1		1	1		1	1		0.8125
8	1	1		1	1		1		1	1		1		1		1	0.625 H
9	1	1	1	1	1	1	1		1	1	1	1	1	1		1	0.875
10		1	1	1	1	1	1	1	1		1	1	1		1		0.75
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1		1	1	1	1	1		1		1			1	1	0.6875
13	1	1		1	1			1		1		1	1	1			0.5625
14	1		1	1	1	1	1		1	1	1	1				1	0.6875
15	1	1	1	1	1	1	1	1			1		1	1	1	1	0.8125
16	1	1	1	1	1		1	1	1	1		1	1	1	1	1	0.875
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		0.9375
18	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	0.9375
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1		1	1	1	1	1	1		1	0.875
22	1	1	1	1	1				1	1	1		1	1	1	1	0.75
23	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	0.9375
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	1	1		1	1	1				1	1	1	1	1		1	0.6875
27	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	0.9375
28	1	1	1	1	1			1	1	1	1	1	1	1			0.75
29	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	0.9375
30	1	1	1	1	1	1	1			1	1	1	1	1	1		0.8125
31	1						1		1	1	1	1		1		1	0.5
32			1		1	1							1	1			0.3125
33	1	1	1	1	1		1	1	1	1	1	1	1	1		1	0.875
34	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	0.9375
35	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	0.9375
36						1		1			1						0.1875
37	1	1	1	1	1		1	1	1	1	1	1	1	1	1		0.875
38	1	1	1	1	1			1	1	1	1		1	1			0.6875
39	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	0.9375
40	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
42	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
43		1		1	1	1	1	1	1	1	1	1	1	1	1	1	0.875
44	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
45		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9375
46		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9375
47	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
48		1		1	1		1	1						1			0.375
49														1	1		0.125
50	1	1	1	1	1			1	1		1	1	1	1	1	1	0.8125
51	1			1	1	1			1	1	1	1	1	1		1	0.6875
52	43	44	37	46	43	36	41	41	38	47	38	45	39	45	32	32	40.4375
53																	Class Mean

<u>**Appendix G**</u>**: Interview Transcript for "Candice"**

1. **Teacher: What does being "engaged" mean to you as a student?**

   Student: Um... like the student and the teacher being engaged in the class? Or

   something like that?

   Teacher: What does it mean to you as a student if you're engaged? Like

   teachers have an idea of what a student being engaged is, but what is it to you?

   Student: Um, well... The teacher's not just talking to them and telling them how to

   do stuff. It's them showing them how to do it one way and then the student doing it

   one way and then... and like adapting it. And then, not just doing it one way or the

   other just kind of mixing them together.

   Teacher: So is there anything for you when you're not engaged?

   Student: It's kind of hard cause there's one way that you can do it and you might

   not get the same thing that you need to so it's difficult.

2. **Teacher: What gets you really excited about a class/course? And why?**

   Student: Well, learning new things. And having people tell you how fun it is, that

   gets me excited cause... when something's fun you really want to do it.

   Teacher: Anything else about it you can tell me?

   Student: Like where it is. Like in the classroom, that's okay, but in here it's really

   fun cause you can work on the computer or you can work here [discussion space]

   and it doesn't just limit you to one space in the classroom.

   Teacher: So kind of the environment? Anything about the way it's taught?

Student: Uh... if it's not just explaining things to you and then going to it like...

having things to like, look at helps and that like, different things to look at helps

too.

Teacher: So why do you get excited?

Student: Cause it means you have more possibilities of how to do it and you get...

you can do it better than just in a little space.

3. **Teacher: What things affect your enjoyment of a class? And why?**

Student: I don't know, there's lots of stuff. Um... the other people in the class, cause

lots of people in the class can be loud or they can do it one way and then you have

another way and they just don't like that.

Teacher: So you mention other students. Is there anything else about the class

that might affect whether you enjoy it?

Student: The place that you actually go into the classroom cause if it's a boring

classroom with nothing on the walls except paint and a chalkboard then that's not

really exciting.

Teacher: Okay. Anything about the way it might be taught or the approaches

that affect your enjoyment?

Student: If the teacher is upbeat like you are then that makes it a lot more fun or if

the teacher's just kind of boring and explains it, it's not really exciting.

4. **Teacher: What things affect your enjoyment of a particular project? And**

why?

Student: The subject that you have to do it on.

Teacher: Anything else?

Student: I don't think so.

Teacher: Anything about the approach? The way we came at it?

Student: No answer.

5. **Teacher: In this particular New Media class, what parts of the video creation unit kept you most engaged? Least engaged? And why?**

Student: The actual filming cause um... cause you get to make it what you want, and not what other people want. Like you get to film where you want as long as it's in school. And it doesn't have to be just like a regular movie, it can be like anything that you want.

Teacher: So what for video creation got you least engaged?

Student: Having to edit it.

Teacher: Oh! Okay, why?

Student: Because that was the hardest part. Cause you can have lots of good stuff and some of it doesn't go in it. But you want it to be in there. You just can't find a way to like, put it in.

Teacher: So kind of that challenge?

Student: Uh-huh.

6. **Teacher: How did you feel about having to develop your own final project for the video creation unit?**

Student: I thought that was really good cause you gave us a bunch of options and you could do it your way but on your idea of a topic.

Teacher: So you were excited by that...

Student: Yeah.

Teacher: So was there anything... any other feelings about creating that final project?

Student: I thought it was going to be kind of hard cause we had so many options and they were all good options and you just didn't know what one to do.

7. **Teacher: What did you enjoy about developing your own final video project? Not enjoy? And why?**

Student: Um, well... taking parts that you liked of the movie and just putting them all together and making it what you thought would be a good idea to show people.

Teacher: So kind of coming up with your own vision of it. What parts did you not enjoy and why?

Student: Having to come up with this really big idea of how to put it all together and edit it and make it like a good project... it was really, really elaborate.

8. **Teacher: How might your experiences have been different if you'd only been given one option for a final project? And why?**

Student: Well, I think it would've been okay, but not the best cause everybody is doing the same thing. And then lots of people might do the same thing and then you do the same thing... it'll just be over and over and over and it'll be boring.

Teacher: Okay, so not as much excitement. Are there any positives to doing it that way?

Student: Yeah, cause you can get a bunch of ideas from other people that are doing the same project and you can just put it into your own project.

9. **Teacher: What excited you the most about your video final project? Least excited you?**

Student: When it finally all came together and it like was finished and it was really, really good.

Teacher: And how did that make you feel?

Student: Kind of made me feel happy cause I actually finished it.

Teacher: So what thing was least exciting about that final video project?

Student: Some of the bits were a little bit too long. Or just a little bit too short, Or they didn't go along with what I thought it would be.

10. **Teacher: What parts of the video creation project held your focus and attention to detail the most? Least focus and attention? And why?**

Student: Cutting it and like putting it all... putting pieces together and making sure that they didn't go over top of each other. And that they were cut at the right spot.

Teacher: So tell me why that editing keeps your focus and attention to detail? Why did that keep your attention so much?

Student: Because I think editing it is kind of really fun cause you can make it what parts you want and you can take pieces of one part and put another pieces of other parts together.

Teacher: So that's a lot of focused work. Is there anything that helped you to stay focused. Did you have any ways that you coped?

Student: Um... being in an isolated place and go sit down and view what you did. [kept me focused] and then go back and fix those and then go take a break and review it and doing the same thing.

Teacher: So what parts did not keep you focused and engaged?

Student: I dunno. There was lots of parts when I was gone and then I was there and then I was not there. Um... going through it and making sure it was all good and together. That was really difficult.

11. **Teacher: How were you able to stay focused on a long-term project that took several days to complete?**

Student: Um... how I stayed focused for the whole time was I would take pieces that I really liked and then I would work on that. And then I would go on the pieces that I didn't like and then I would go back to pieces that I did like. That's how I stayed focused: doing things I liked and then taking a break and doing things I didn't like instead of saving it all to the end and ending up doing a sloppy job on it.

Teacher: There you go... Anything about the set up of how it all worked that helped?

Student: Um... well, the set up of the room like there's the computers and then there's the couches where you can think and just, like, work on it in your head and then you can go back to your computer.

12. **Teacher: As a student, what kinds of learning activities teaching help you stay most engaged? Least engaged?**

Student: Like when we read in a group or when we went out and read with Mrs. Reamsbottom, like giving us the option to read by ourselves or with you guys helped. Um... and like doing a bunch of different things, like, not just focussing on Deathwatch the whole time, we did little parts instead of reading like five chapters, we would read maybe like two and then we would do some questions and then we would review on that and then that helps to stay focused a lot.

Teacher: Absolutely. So in this classroom is it similar to that? Can you talk about it for this classroom? What kept you stay most engaged?

Student: Well, doing like the printmaking... we could work at the back tables or we could go sit in front of our computer or we could sit up here and you're not just limited to one space where you have to work on it. Cause one space would get crowded like the back table did get crowded so you could come up here and work on it or you could go in the AV Suite and work on it.

Teacher: And you mentioned about working one on one, if you needed an assistant or to work one-on-one with a teacher... Having the choice to do that. How about the little activities? The ones we did at the start of class. Did that help you?

Student: Yeah that helped a lot cause you get to learn how to do things on it like with Photoshop, those helped cause lots of people didn't know what the icons did so they could fool around with it and learn how to do it. That helped a lot.

Teacher: So what kept you least engaged?

Student: If we have to do it all together. Everybody has to participate, cause lots of people get lost. Cause some people talk really loud and some people talk really quiet and then you just don't know where you are.

13. **Teacher: What kept you most excited and enthusiastic in this class? Least excited and enthusiastic?**

Student: Doing printmaking and the stickers and the mirrors cause that was really fun and you didn't have to like do one thing you could do any kind of sticker or anything on a mirror or any kind of print.

Teacher: Lots of option.

Student: Yeah.

Teacher: And what kind of things kept you least excited and enthusiastic?

Student: Photoshop, cause I thought it was really hard.

Teacher: Tell me why...

Student: Cause you want it to be perfect but you can't always get it to be perfect and then you would focus so hard and then you would forget which stuff... what you did.

14. **Teacher: If I could go back and re-teach the video creation unit for the class, what do you think I should change, and why?**

Student: Um... well, I thought it was really good and I don't know what you could change. I don't think there would be anything that you should change.

15. **Teacher: Are there any other things you'd like to mention regarding student engagement?**

Student: No, I don't think so.

Appendix H: Interview Transcript for "Tamara"

1. **Teacher: So what does being "engaged" mean to you as a student?**

Student: So like, being involved and understanding what's going on.

Teacher: Anything else? Like if you're engaged in a class, what does that mean?

Student: Like you take part it in and you get to say what you think and stuff like that.

Teacher: Anything else?

Student: (shakes head, no)

2. **Teacher: What gets you really excited about a class/course? And why?**

Student: Um... I like lots of group work and stuff like that. So you get to interact with other people and there's also hands on projects.

Teacher: So why does that get you excited about a class or course?

Student: It's just more exciting... it's less boring. Like if you just sit in a desk all the time. Not really that much fun.

Teacher: Anything else that gets you excited about the prospect of a class?

Student: Nothing I can think of. (laughs)

3. **Teacher: What things affect your enjoyment of a class? And why?**

Student: Um... for like the people that are there. Just like... the surrounding and the teacher of course and just the stuff we're doing in general. So like, if it's like Social, I won't enjoy it. But if it's like Math, or even this, like... like New Media, then I'll enjoy it.

Teacher: So you mentioned subject... that that affects it... and you also mentioned other students. Can you explain that a little bit?

Student: If you have friends in the class, then you'll enjoy it more.

Teacher: And then you mentioned teachers. What is it about a teacher that makes you like it or not?

Student: Uh... they have to give off a positive environment, and if they try to like, connect with their students, I think it's better than just like, saying the work and then just letting them do it by themselves... they got to help them.

4. **Teacher: So what things affect your enjoyment of a particular project? And why?**

Student: Uh... if you know what you're doing. (laughs) If you're really confused then you're not going to have any fun.

Teacher: You mentioned group work before. Is that one way that you enjoy a project?

Student: Yeah, I'd rather be doing it with people than just all on my own.

Teacher: Why?

Student: I don't know, it's just got to be fun, I guess.

5. **Teacher: In this particular New Media class, what parts of the video creation unit kept you most engaged? Least engaged? And why?**

Student: I liked that one when you picked a song and you put the words in. Yeah, I really liked that one.

Teacher: So tell me why that one kept your attention?

Student: Um... I don't know. I love music, and so I always watch videos and youtube with the lyrics and stuff, so I thought it'd be cool to make one of my own.

Teacher: So which part of that same unit, was least engaging?

Student: I hate being on camera so I didn't want to be in the film. So yeah. I just don't like being on camera.

6. **Teacher: How did you feel about having to develop your own final project for the video creation unit?**

Student: I like how you gave us the options like... then we get to pick the ones we're more interested in. And what you think you're good at. Do that instead of being forced to do something else. Yeah. I liked that.

7. **Teacher: What did you enjoy about developing your own final video project? Not enjoy? And why?**

Student: Like, in the end result, may not enjoy doing it while you're doing it... but like the end you're like 'this is really cool, kind of thing'.

Teacher: So what did you not enjoy when you were developing your own final video project?

Student: I don't remember exactly what... I think it was kinetic type. Just one time I saved it and it didn't save properly and I lost it and then I had to restart the whole thing. Yeah... (laughs) But it was my own fault though.

8. **Teacher: How might your experiences have been different if you'd only been given one option for a final project? And why?**

Student: I uh... I would've... I wouldn't have felt as much freedom, like you gave us lots of space to do what we wanted to and we could even come up with our own projects, cause you gave us lots of freedom which was good.

Teacher: So how would it be if I'd just given you one choice? Cause that sometimes happens in school.

Student: (laughs) Yeah, I'd just be like 'it's school. You have to do it, I'll just do it. It's not a big deal.' So, yeah...

Teacher: So how is that different from where you had to choose your own?

Student: It's not that much of a big deal for me, I guess. Cause if you have to do it then you have to do it. But if you get the choice that's great... kind of thing. (laughs)

9. **Teacher: What excited you the most about your video final project? Least excited you?**

Student: I liked the animations and stuff and how you could, like, make it how you wanted it. There was so much to choose from. Like even after it was done, I was showing all my friends and my parents and I was like 'this is so cool!' (laughs). So yeah.

Teacher: So what part least excited you about that final video project? Nothing really... I was looking forward to it.

10. **Teacher: What parts of the video creation project held your focus and attention to detail the most? Least focus and attention? And why?**

Student: Like you had those daily assignments so that, like we were learning new things every day so that you had to keep up so that you could put all of it into your

work. So if you missed something then your work won't be as good kind of thing. It was just leading up to the major thing.

Teacher: And what one kept your focus and attention to detail the least and why? Student: Sometimes if it looked really confusing but most of the time it didn't.

11. **Teacher: How were you able to stay focused on a long-term project that took several days to complete?**

Student: Um... I guess like you had... I would take breaks sometimes just to let your brain go otherwise you just got to stay focused and think about what it's going to be like at the final project... like at the very end. What it's going to look like and you want it to be good. So then you're going to put a lot of effort into it.

Teacher: So was there anything about the environment?

Student: Yeah, you can go anywhere and you can just think about it and stuff. Like even if you can research something about it and like it'll be better and stuff.

12. **Teacher: As a student, what kinds of learning activities teaching help you stay most engaged? Least engaged?**

Student: Um... I like it when there's examples, so they have to show me how to do it instead of just tell me. Yeah... I'd rather see examples and then you get an idea and you can come up with your own like working off of that.

Teacher: Anything else that really helps you be engaged?

Student: Um... just be able to talk to other people. And make sure that the instructions are clear and stuff.

Teacher: Anything about the way a teacher might teach?

Student: If they're positive and not so negative all the time, then yeah. (laughs)

Teacher: So what teaching or learning activities are least effective in helping you stay engaged?

Student: Uh... I guess when you just have to write notes and copy them straight off the board. It's just like you're not learning anything you're just copying, and for you to learn it you have to reread it over and over again and maybe write it a couple more times. Or just when they're talking nonstop and not letting us write it down. So like they just expect us to soak it up with our head. (laughs) So being able to put it down somewhere.

13. **Teacher: What kept you most excited and enthusiastic in this class? Least excited and enthusiastic?**

Student: Um... I was looking forward to the final unit... and... I'm good with computers so I enjoyed that. And I liked the people in it too and then the teacher was good and so then it was just like... fun to be in here.

Teacher: Anything about the class at all?

Student: Yeah, with the pictures and everything. It was nice.

Teacher: What things got you least excited and least enthusiastic?

Student: Um... I don't know. I liked doing it. Like I loved the Photoshop and, cause I like editing and stuff like that. (laughs)

14. **Teacher: If I could go back and re-teach the video creation unit for the class, what do you think I should change, and why?**

Student: Um... I liked how you got us to write scripts, cause that got us to like relate not just to the filming side of the movies but kind of the directing side too.

Teacher: Anything you'd want me to change?

Student: Not really. I like how you had it set up like it was good!

15. **Teacher: Are there any other things you'd like to mention regarding student engagement?**

Student: Um... I think you did a good job getting the students involved, and like, you're really positive all the time. So like, I don't know, like you gave us lots of freedom but you were still like, helped us to stay on task, so we have to get our work done, but you gave us time to do it. Um... things were fun and uh... nope, I think you did a good job, (laughing) like I like you as a teacher, it was good! (laughs)

Appendix I: Interview Transcript for "Jean"

1. **Teacher: What does being "engaged" mean to you as a student?**

Student: Like hands on work and you get to be in like a group and you get to interact with other people and you just like... like hands on work for me, it's easier for me to understand things than just like reading through a textbook and just trying to figure stuff out. So...

2. **Teacher: What gets you really excited about a class/course? And why?**

Student: Um well, if you're not interested in it, like if you don't like what you're going to be learning it's obviously going to be really boring. So if you don't like computers then you would've been kind of screwed (laughs). Um, I like... I just like them really creative so I liked having um... having to be able to like, express that in many different ways. That was a lot of fun.

Teacher: So why does that get you excited about a course?

Student: Um... just cause you can like add your style to things like when you're designing things or when you're studying or learning then you understand and you're using your creative ways to help you get better in that course.

3. **Teacher: What things affect your enjoyment of a class? And why?**

Student: Uh... definitely the teacher. It's if... if you hate the teacher you're not going to be as involved in the stuff that you are than if you have a really good teacher and you like it a lot better.

Teacher: So what makes a teacher 'good'?

Student: Um... that they actually teach you things and even though you're like in a class it doesn't mean that you don't need a teacher's assistance when you do... so if you don't have that help then it's hard to learn things and hard to understand them.

Teacher: Is there anything about them in particular?

Student: They have to be nice. If they're not nice then it's really, really hard. (laughs) Um... they have to be nice. They have to like, interact with you, like be on a level like an understanding level and understand what you're going through if you're going through hard times and everything.

Teacher: Anything about the environment?

Student: Um... if you're... if you have friends in the class it helps. If you don't then you're kind of, like, by yourself and some people aren't always that nice so like meeting new people so then you're kind of, you know, alone and it's not as fun, but...

4. **Teacher: What things affect your enjoyment of a particular project? And why?**

Student: Well, like you gave us always the option of choosing like you could choose from different, like, projects, like, different things, so then you could choose one more to your liking. So then you're not forced to one thing that you really don't want to do but you have an option of doing fun, challenging things that was... that got your creativity going and got you to have fun.

5. **Teacher: In this particular New Media class, what parts of the video creation unit kept you most engaged? Least engaged? And why?**

Student: Probably like the acting part of it cause we had a lot of fun when we did our video cause we had... we had the four people in our group so we all contributed and we all had a lot of fun trying to like think of what camera angles and what like facial expressions and everything that we should do so it was a lot of fun.

Teacher: So why is it? What is it?

Student: Um... it was a group and the song that we got cause the song was very interesting so it was kind of hard to think of something to do for it so it got us thinking really hard about that.

In that Unit 1, what was the least engaging?

Student: Probably like the Movie Maker [sic] part of it, like the Premier stuff just cause it took so much time to edit it all. But like it was fun doing but it just took so much time it was just so exhausting to get it all done.

6. **Teacher: How did you feel about having to develop your own final project for the video creation unit?**

Student: Um... I really liked having... cause then you don't have to like share your idea with somebody else and trying to compromise an idea, you could just go with

your idea. You... you saw in your mind how you wanted to have it so you could develop it that way whereas if you had somebody else in your group that you kind of had to explain it more to them when it might not make sense when you're explaining it but it makes sense in your head. So...

7. **Teacher: What did you enjoy about developing your own final video project? Not enjoy? And why?**

Student: Um... you can come up with your own ideas. And then you also just could have fun with it. Like it wasn't something strict along guidelines that you had to have this, you had to have this, it was just play around with it and get a good final project with the music that you got so and... Also like even though the Premiere was kind of hard to... long to do... it was also really fun to do like different animations like with the titles and learn whatever you had to do. It was good.

Teacher: Which things did you least enjoy?

Student: No. It was a lot of fun.

8. **Teacher: How might your experiences have been different if you'd only been given one option for a final project? And why?**

Student: It would be harder because like you don't... some people might not like that as much, so they might not like appreciate doing that. Cause me and Bailee did a um... a mashup trailer together and we did um... the kinetic type and the mashup trailer was fun cause like she chose one and I chose one and then we tried to see where they could mash up so we had to choose some that were pretty close together, so that it wasn't like a complete disaster. But it was a lot of fun cause you

got to... you got to make like almost your own movie. So that was really cool to learn how to do and to actually do that.

9. **Teacher: What excited you the most about your video final project? Least excited you?**

Student: Um... well our idea was very interesting cause of our... uh... music. So it was a lot of fun to just try and uh... match the video to the music and try and match the video to the music and get it so it worked really well and in the end it did work. Yeah. Trying to get them lined up with that and everything.

Teacher: So what least excited you about your final video project?

Student: Well, I didn't like being in front of the camera and I didn't get to be the video taker (laughs) so I was kind of like "uh.... okay?" And at the very end they made me do this really weird face and we had to do it over and over and over cause it just wasn't working. We finally... we finally gave up and we got a decent one and... but it was not... it wasn't the best. (laughs) Yeah.

10. **Teacher: What parts of the video creation project held your focus and attention to detail the most? Least focus and attention? And why?**

Student: We really had to think about the camera angles and the close ups and everything cause we wanted to see... we wanted to see emotion in it an everything, so you had to always be thinking of "should we have it uh... wide or close?" And it took a lot of time to video tape it because we had to always think about well should we have it here instead of there or whatever. And it took a lot longer than we all thought it would.

Teacher: So what had the least focus and least attention to detail for you?

Student: We had to go over this one part over and over not the face thing but we had to have this other part cause we kept mixing up like a tiny bit each time so it was.. so we had to keep going and going and that was like "okay just... by now can we just get a decent one and just move on?" Like it was so tiring to keep going over and over and over and over. But it was just... just wasn't worth it.

11. **Teacher: How were you able to stay focused on a long-term project that took several days to complete?**

Student: Well they were all fun projects so there wasn't any hard to stay focused cause if it's something you really don't want to do, it is kind of hard, cause you don't want to do it so it'll make you move faster so it might not be as good of a project but if you are really focused and you're really enjoying what you're doing, you just have fun with it. Like with uh... uh... the google sketchup house, they're just a lot of fun to do, and you're just so excited the next day to get working on it and it just kept you focused and it's like your dream house so you can design it whatever way you want and it was a lot of fun. **Teacher: Anything about the set up of the room or the set up of the class and how it worked?**

Student: Um... well, I really liked how it was set up. Even though there weren't always enough computers for everybody there was still room for people to get stuff done so it's not like a cramped room where you have only a few computers and not many people can go on the computers and there's not room for anything else to do to be done but everybody worked well in here and it was a big enough space for everybody to uh... get everything that they needed to be done.

Teacher: Anything like, teaching-wise?

Student: Probably the timeline that you set so that we knew when to have it done so like you knew to have it done before the days of grace cause otherwise you're... you'd get really far behind. So then that gave us inspiration to like push ourself more to get it done faster.

12. **Teacher: As a student, what kinds of learning activities teaching help you stay most engaged? Least engaged?**

Student: Definitely back to the hands-on stuff. The more you experience... Like I learn better hands on than anything else like that's the one thing that if I can do then its... it's good. So that really helped doing that and you helping us with different projects and if we had a... if we were stuck on one thing then you'd show us but you wouldn't do it for us, you'd show us and then you'd make us do it again, so that we understood it.

Teacher: Anything about teaching approaches that helped? Cause I often had little ones before the bigger assignment.

Student: That was easier than just jumping us into a bigger assignment rather than having like smaller things and then going bigger and bigger which that helped a lot.

13. **Teacher: What kept you most excited and enthusiastic in this class? Least excited and enthusiastic?**

Student: I really, like... like computers and I love design and stuff so it was a lot of fun to uh.. like to go beyond what you're used to and to learn more about it so that you can... so you're able to do more things.

Teacher: What was the least exiting thing about this class? The thing that you were not enthusiastic about?

Student: Probably Photoshop. At first that really scared me. (laughs) It was not something that I wanted to do at all.

Teacher: So why was that?

Student: It was a little overwhelming but just like... well, it still is a little bit confusing but you understand it. It's just it's hard to... it's hard to imagine how people use that in their daily lives and it's really kind of like, "oh... okay".

14. **Teacher: If I could go back and re-teach the video creation unit for the class, what do you think I should change, and why?**

Student: I don't think anything cause you explained everything really well and then you like set us out in our groups to do it and you explained everything to exactly how you wanted it so we knew what we had to do and we knew how to accomplish it so I don't think there was anything that needed to be changed for it.

15. **Teacher: Are there any other things you'd like to mention regarding student engagement?**

Student: Not really. (laughs)

Appendix J: Interview Transcript for "Britney"

1. **Teacher: What does being "engaged" mean to you as a student?**

   Student: I think it's more like, kind of like get involved with your class and stuff and um... do as much as you can because I find that you know, if you actually, like, talk in class and you ask questions that you can learn a lot more than if you were to just like, go and read the textbook or something.

   Teacher: Anything about your learning you want to talk about? Like... what is engagement for you?

   Student: Um... just I really like class discussions. I find that I learn a lot more and I'll take away more from that than if I were just doing a worksheet. So if I'm actually verbally speaking to someone about something and then I remember it better.

2. **Teacher: What gets you really excited about a class/course? And why?**

   Student: I think it... it depends on what class, I guess. So like, I dunno... More classes will have more exciting things than some, like, I won't be excited as much for like math, as I am for science, because I'm more... I lean more that way. It doesn't really, like... nothing in particular in classes really gets me excited but I guess...

   So is it subject matter for you for you?

   Student: Yeah.

   Teacher: So why the subject matter? Is it just your particular interest?

   Student: Yeah.

3. **Teacher: What things affect your enjoyment of a class? And why?**

Student: Um... I don't like just like, doing worksheets and like textbook work, getting stuff like that. I actually like to do hands on stuff every once in a while. So um...

Teacher: Is that like teaching approaches?

Student: Yeah. I guess so. Like, some teachers just tell you what you need to do and that's the way they teach, but I prefer a teacher who, like, will actually get involved with the class and stuff. I find I learn better that way.

4. **Teacher: What things affect your enjoyment of a particular project? And why?**

Student: Well, if... Most projects are usually group projects, so if I'm with people that I enjoy working with that's a big part of it because if your groups are chosen for you sometimes you end up with people who won't work and that's hard to do but um... I like to be more creative with it and think outside the box and think of something that hasn't already been done.

5. **Teacher: In this particular New Media class, what parts of the video creation unit kept you most engaged? Least engaged? And why?**

Student: I really liked working in Premiere. I thought that was really fun, so I had to get it at home for myself. (laughs) Um... but yeah. I really like learning programs and how to work them. I thought that was cool.

Teacher: So I teach where I use those... they're called scaffolded assignments... where we do those little daily things. Were those the ones you enjoyed? Or was it the big project at the end?

Student: Well, it's probably the big project was lots of fun.

Teacher: Least engaging?

Student: Um... I don't think there was anything really that I disliked or anything. Like... it was all really enjoyable. (laughing)

6. **Teacher: How did you feel about having to develop your own final project for the video creation unit?**

Student: Um... I actually kind of liked that. I think it was cool because we actually got to... we had a little freedom and space to move so it was like you didn't have to for sure do something on 'this', you could like... use our own creativity in it. So that was cool.

7. **Teacher: What did you enjoy about developing your own final video project? Not enjoy? And why?**

Um... I think just thinking up ideas and then finally like knowing what you were going to do and then just getting all excited about how you're going to do it.

Teacher: What did you not enjoy? And why...

Student: Not... not at all, no. (laughs)

8. **Teacher: How might your experiences have been different if you'd only been given one option for a final project? And why?**

Student: Um... I think it wouldn't have been as fun, or like, intriguing, cause like everyone is doing this. Er... or it might have gone the other way and been more of a challenge cause everybody's doing it so you want to do something that stands out.

9. **Teacher: What excited you the most about your video final project? Least excited you?**

Student: Most exciting was uh... like getting to use everything that I'd learned. That was cool because it was like Oh, I can do this now.

Teacher: What was the least exciting for you?

Student: Um... the editing, like once it was all done and having to go and make sure that everything was perfect. That was least exciting.

10. **Teacher: What parts of the video creation project held your focus and attention to detail the most? Least focus and attention? And why?**

Student: Um... Hmm... I just wanted everything. I did a kinetic type so I had to... I really wanted the words to be spot on so I had to go through those so many times to make sure it was perfect.

Teacher: Least focus and attention?

Student: Um... not really anything. It was... yeah.

11. **Teacher: How were you able to stay focused on a long-term project that took several days to complete?**

Student: Um... well if I do like a chunk, a big chunk, and then I'll... I'll take a little break for like five minutes and just take a rest so it's not like you're so bored by the end of it, like, you just don't want to do it anymore. So if you take breaks in between, I find that... that helps.

12. **Teacher: As a student, what kinds of learning activities teaching help you stay most engaged? Least engaged?**

Student: Um... what works the best like, I find that, if I sit down with my teacher and I can like talk to them about something that I'm not... all clear on. That usually

helps me work things out. Than if I were to just like... textbooks I'm like... I like to read and stuff but sometimes they just don't really make sense so...

13. **Teacher: What kept you most excited and enthusiastic in this class? Least excited and enthusiastic?**

Student: I really liked working within Photoshop and Premiere. I think that was what was really exciting for me because I was going into here and I had like no knowledge whatsoever and I was worried that I wouldn't be able to do it but then, when we actually got working, you know? It was really cool. Yeah, like now I can do so much. It's really cool. And least was probably like the last unit... the animation. I found it just... it wasn't as intriguing to me.

14. **Teacher: If I could go back and re-teach the video creation unit for the class, what do you think I should change, and why?**

Student: Yeah. I thought it was good cause like I think the daily projects especially really helped because they you can kind of like hone those skills and you know what you're doing then. (laughs) Otherwise you're just thrown into it.

15. **Teacher: Are there any other things you'd like to mention regarding student engagement?**

Student: No I think I'm good.

Appendix K: Interview Transcript for "John"

1. **Teacher: What does being "engaged" mean to you as a student?**

   Student: Like really liking something you're doing and just kind of hooked on it.

2. **Teacher: What gets you really excited about a class/course? And why?**

   Student: Sometimes the stuff we do inside it or just the way the class is.

   Teacher: So what do you mean by 'just the way the class is'?

   Student: Like... when someone, like likes Science or something, and then they're in a Science class, just stuff I don't know. Cause someone might like doing some of the stuff in the class. Like someone might...

3. **Teacher: What things affect your enjoyment of a class? And why?**

   Student: Well the work and yeah, the work and the teachers and just how the class is presented.

   Teacher: So that's kind of general for the work. Can you tell me more about that?

   Student: Just like sometimes the assignments or something.

   Teacher: Particular ones better for you?

   Student: Like with this new media class... just like the animation ones.

4. **Teacher: What things affect your enjoyment of a particular project? And why... why would you enjoy a particular project?**

   Student: Because I might have an interest in it.

   Teacher: Anything else that makes you enjoy or not enjoy it?...

   Student: Mmm... no.

Teacher: Anything you might not have been super interested in, but once we got going, you were like 'oh... okay'? Student: Yeah, there was stuff there, yeah.

Teacher: Can you give examples of some?

Student: (shakes head)

5. **Teacher: In this particular New Media class, what parts of the video creation unit kept you most engaged? Least engaged? And why?**

Student: Well like to the video ones, right?

Teacher: Yup. So what kept you engaged.

Student: Well, like presenting them, kind of making your own video assignment.

Teacher: Cool. Anything more about that?

Student: Just presenting it and making the whole entire thing.

Teacher: So what kept you least engaged?

Student: I dunno. Maybe sometimes when like Photoshop or something wasn't working and then I had to try to fix up some photos.

Teacher: Okay... so why do you think that happens for you?

Student: I don't know, I just get kind of frustrated with it.

Teacher: Any other things that kind of kept you engaged?

Student: For the same video creating thing, right?

Teacher: Yeah.

Student: I dunno, just presenting it and just making the entire thing.

6. **Teacher: How did you feel about having to develop your own final project for the video creation unit?**

Student: No really that different just... I dunno, I just like it but... didn't feel that much different from anything else.

Teacher: So kind of like a regular final project, you'd be expected to do that?

Student: (nods)

Teacher: Do you think that'd be different if I said to everyone 'I like doing mashup trailers, so we're all going to do them'?

Student: Yeah, well, that would be different.

Teacher: Would that be better or worse?

Student: Think little worse.

Teacher: Any reason why?

Student: Uh... because then there's not that much freedom of what to do.

7. **Teacher: What did you enjoy about developing your own final video project? Not enjoy? And why?**

Student: I just feel like good in the work I do and stuff so... yeah.

Teacher: Anything else for that? Did you enjoy the independence?

Student: Yeah.

Teacher: Any reason why?

Student: (no answer)

Teacher: Like, I could have assigned everybody to do the same thing, but instead, you probably remember I gave you a bunch of choices and let you guys decide. So is that... Did that work? Did that not work?

That works.

8. **Teacher: How might your experiences have been different if you'd only been given one option for a final project? And why?**

Student: Well, that wouldn't really be that fun cause no one would really... well like I can't have all the freedom to do the stuff and yeah... I think that's pretty much it.

9. **Teacher: What excited you the most about your video final project? Least excited you?**

Student: Just getting to know how to like work it and stuff.

Teacher: And what was the least exciting?

Student: Just kind of like fixing up previous stuff over and over. That kind of gets boring.

10. **Teacher: What parts of the video creation project held your focus and attention to detail the most? Least focus and attention? And why?**

Student: Well, I don't know, like the animation parts and trying to match the picture with like the words and the description. When that's going on.

Teacher: Cool so that's kinetic type or something like that?

Student: Yeah.

Teacher: What least got your attention and focus?

Student: (no answer)

Teacher: Anything?

Student: I can't think of anything.

11. **Teacher: How were you able to stay focused on a long-term project that took several days to complete?**

Student: Well, I was just enjoying the stuff I do so...

Teacher: So if you enjoy it just keeps you going?

Student: Yeah.

Teacher: This class is pretty free. If you need to take a break you can. Does that help with focus?

Student: Yeah, that helps a lot with focus.

12. **Teacher: As a student, what kinds of learning activities teaching help you stay most engaged? Least engaged?**

Student: It's kind of like the honest approaches.

Teacher: So when you say 'honest approaches' is that like a teacher's personality?

Student: Yeah.

Teacher: Anything about the program?

Student: Yeah, cause people have more time to think about what they're going to do.

13. **Teacher: What kept you most excited and enthusiastic in this class? Least excited and enthusiastic?**

Student: I don't even know.

Anything you were least excited?

Student: No I can't even think of one. This class was okay.

14. **Teacher: If I could go back and re-teach the video creation unit for the class, what do you think I should change, and why?**

Student: Nothing, it was good (?).

Teacher: It worked?

Student: Yeah.

Teacher: Any suggestions?

Student: No.

15. **Teacher: Are there any other things you'd like to mention regarding student**

engagement?

Student: No.

<div align="center"><u>**Appendix L**</u>**: Interview Transcript for "Mike"**</div>

1. **Teacher: What does being "engaged" mean to you as a student?**

   Student: Basically like doing the voiceovers and everything. That's what I... I like being engaged in doing the voiceovers. I don't really have them down though. I still need more work with that but basically being more engaged with the students and working with other kids too.

   Teacher: Prompts. Do you like being able to choose your own projects etc.?

   Student: Uh yeah...

2. **Teacher: What gets you really excited about a class/course? And why?**

   Student: Basically if it's fun, I like it. Nice teacher.

   Teacher: What is a nice teacher?

   Student: Basically, people who don't yell at you.

   Teacher: Anything about a classroom?

   Student: Decorated and everything like this one.

   Teacher: Prompts.

   Student: Yeah, working with your friends and also actually working.

3. **Teacher: What things affect your enjoyment of a class? And why?**

   Student: Well, it'd be basically... basically it's a fact of me, if I don't get enough sleep I won't have fun in class or anything. Like in the foods class.

   Teacher: Anything else about the class itself?

   Student: It's fun, it's fun... a lot funner with friends.

4. **Teacher: What things affect your enjoyment of a particular project? And why?**

Student: More that painting stuff (?) stuff I'm not a fan of. Like if it's more on the computer or the sticker cutter, I'm fine with it. Painting, drawing, stuff like that. No.

Teacher: Prompts again.

Student: (No answer.)

5. **Teacher: In this particular New Media class, what parts of the video creation unit kept you most engaged? Least engaged? And why?**

    Seeing Delbert dance.

    Teacher: Prompting about group work.

    Student: Yeah. Um... well basically working on my own story... basically making up my own story, not doing what going with basically what someone told me to do. Just make your own creation. It's something you really like. You don't have to listen, whatever, you just do what you, uh... would like to see.

6. **Teacher: How did you feel about having to develop your own final project for the video creation unit?**

    Student: I didn't want to do it.

    Teacher: Why?

    Student: Uh... too much pressure when at first you're doing it.

    Teacher: How'd you feel this year?

    Student: It was a little bit better... lot easier though.

7. **Teacher: What did you enjoy about developing your own final video project? Not enjoy? And why?**

Student: Basically putting it all together on the computer. Putting cuts into it, making actually inside the video, looks like he's in there.

Teacher: Didn't enjoy?

Student: Um... not really.

8. **Teacher: How might your experiences have been different if you'd only been given one option for a final project? And why?**

Student: I wouldn't have as much fun probably if they just told me do this, do it right, and get it done.

Teacher: Why?

Not really why. (laughs) I just I like doing it free spirit way.

9. **Teacher: What excited you the most about your video final project? Least excited you?**

Student: Most exciting was well, like I said, watching Delbert dance and cutting it in. And the least exciting was um... not really being able to go into the video with him cause I didn't really know how to dance.

10. **Teacher: What parts of the video creation project held your focus and attention to detail the most? Least focus and attention? And why?**

Student: Like the colouring and everything, yeah, basically, making them blend in perfectly with it.

Teacher: Least?

Student: Um... one was not being in it [the video]... the other was basically just doing stuff on the computer instead of like, going out and doing it.

11. **Teacher: How were you able to stay focused on a long-term project that took several days to complete?**

Student: Basically well, sitting on something comfortable, listening to music while I go through it all. Basically listening to music and taking breaks... five or ten minute breaks... going back to it after. Yeah.

12. **Teacher: As a student, what kinds of learning activities teaching help you stay most engaged? Least engaged?**

Student: Basically, if it's a nice way they say it and not really demanding... everything.

Teacher: The room?

Student: Well, if it's colourful like this one. Then if it's dull, then not really, you're just bored.

Teacher: How about least engaged?

Student: Uh well, demanding just telling me do this one way, do it my way, don't do it in that way.

NOTE: (Another student interrupted the interview at this point)

13. What kept you most excited and enthusiastic in this class? Least excited and enthusiastic?

MISSED THIS QUESTION

14. **Teacher: If I could go back and re-teach the video creation unit for the class, what do you think I should change, and why?**

Student: Kind of hard to say. Not really no.

15. **Teacher: Are there any other things you'd like to mention regarding student engagement?**

    Student: Freedom to do it.

<u>**Appendix M**</u>**: Interview Transcript for "Hank"**

1. **Teacher: What does being "engaged" mean to you as a student?**

Engaged is like when you're into something and using up your time. Like maybe somebody playing video games just to... they're like really into it.

2. **Teacher: What gets you really excited about a class/course? And why?**

To learn. To learn something new and to see new people and meet new people.

Teacher: Does the subject matter? Sometime, like math, that's my good part of it. If I take LA... I really don't like writing. It's like math comes to me but LA really... yeah. Like LA is good but just the essays. Just the format.

Teacher: Do the teachers matter?

No the teachers are all good. Yeah.

Teacher: Does it matter if your friends are in the class?

Sometimes yeah. They can help you out.

3. **Teacher: What things affect your enjoyment of a class? And why?**

If like, if the teacher really explains it well. And like if I have my friends that can help me and it makes the day easier.

Teacher: Anything about the environment?

Yeah that makes a big difference as well cause like sometimes it's just too noisy and you can't really get your work done.

4. **Teacher: What things affect your enjoyment of a particular project? And why?**

Oh if it's a good project. What group members are in your group. If it's difficult, uh yeah. The projects are usually easy.

5. **Teacher: In this particular New Media class, what parts of the video creation unit kept you most engaged? Least engaged? And why?**

The group video because... it was because it was really fun. You get to act yourself instead of like sitting at a computer and uh... making kinetic types. And yeah, I had friends in my class.

Teacher: Least?

Nah... I don't think there were any. Kinetic was pretty good, but everything was pretty good. But they were all good.

6. **Teacher: How did you feel about having to develop your own final project for the video creation unit?**

That was great. Cause we already learned everything and now we get to... we get to put everything together and make a big project. Yeah, yeah. That was really good.

7. **Teacher: What did you enjoy about developing your own final video project? Not enjoy? And why?**

Photoshop [sic] sometimes the tools, I didn't know where they were. That's the only thing but... uh. I got to learn a lot about new programs and uh... how you can use them. And then they come in handy later on, like in Info Pro right now. Yeah.

8. **Teacher: How might your experiences have been different if you'd only been given one option for a final project? And why?**

Would be a lot different cause some people aren't good at mashups, some people won't get it, some people will. But the ones that won't get it, they won't get time. They would just slack off. They won't even care. But when you get a lot of choices

you probably know what you want to do and you make it to... make it very good. You give your best effort.

9. **Teacher: What excited you the most about your video final project? Least excited you?**

The most exciting part was when you get to take characters and put them on a place... in a place where they cannot exist. Put 'em beside characters they would never meet but... The least favourite was just to like make the perfect shape and cut 'em out. But everything else was good.

10. **Teacher: What parts of the video creation project held your focus and attention to detail the most? Least focus and attention? And why?**

Well, the characters that I picked were like something that I watched and like... so people like... like people around me were like saying what they had seen and what they usually watch. And take characters out of that and put them in. They know what they can do, they know the characters. They're kind of attached to the characters that's why they picked them so that's why they like focused on the characters, and then you put real detail in it.

Teacher: Least?

Least focused was backgrounds. Really didn't matter what they were.

11. **Teacher: How were you able to stay focused on a long-term project that took several days to complete?**

Well the project that took several days were probably fun. Yeah, that's why. That's why you just stay focused and uh... yeah. Sometimes like when we were... when we

have.... when we think we can do it in a couple of... we can finish it up, but you can still take the time, take a break, taking breaks.

12. **Teacher: As a student, what kinds of learning activities teaching help you stay most engaged? Least engaged**?

Student: The one like you explain and then you also show an example how you do it. As students you know how to do it and then you really like look at what're we supposed to do?

Teacher: Least?

Student: When the teacher just gives you a big piece of... sheet and just like do it yourself, cause like what're you supposed to do then? Happened last year.

13. **Teacher: What kept you most excited and enthusiastic in this class? Least excited and enthusiastic?**

Student: Editing pictures were fun. And the least um... I don't think I had a least.

14. **Teacher: If I could go back and re-teach the video creation unit for the class, what do you think I should change, and why?**

Student: No, I don't think so.

15. **Teacher: Are there any other things you'd like to mention regarding student engagement?**

Student: No that's good.

Appendix N: Interview Transcript for "Allen"

1. **Teacher: What does being "engaged" mean to you as a student?**

Student: Um like being on task working.

Teacher: Anything else to it?

Student: Um just like helping out someone who needs help. Making sure yeah, you're on task. Doing what you're assigned to do or supposed to do.

2. **Teacher: What gets you really excited about a class/course? And why?**

Student: If I know the assignment, what the assignment is from the previous day. So what we're doing the next day.

Teacher: Anything about just classes in general? People or the environment?

Student: Yes, friends if you don't get to see them 'cause we have the dual campus. That's about it.

3. **Teacher: What things affect your enjoyment of a class? And why?**

Student: Uh just the things that you do in a class. For example math, like if there's a section in math that you like doing then you might like math but then if it's one out of nine subjects you like then you might not enjoy it. For this class it was really enjoyable cause it was really easy stuff to do, really fun stuff.

Teacher: Anything else that affects whether you enjoy it? Friends? Teacher? Anything?

Student: Yeah, I think teachers really affect it. If it's a nice teacher. Or if the teachers just always on your case or something.

Teacher: Anything else? Physical Space?

Student: Yeah, in this class there wasn't enough space. A battle to get to a computer every time. That affects it. And friends if you can get a computer beside a friend, they can help you or make it go worse. (laughs) Positive and negative.

4. **Teacher: What things affect your enjoyment of a particular project? And why?**

Student: I think it's more based on personal preference on what you like doing. Like if you're coming into a class liking art, then you might like the art stuff like those girls were. And... yeah. Whatever you find is fun. Whatever you like doing. If you're going to do that in a class, then you're going to like the class.

5. **Teacher: In this particular New Media class, what parts of the video creation unit kept you most engaged? Least engaged? And why?**

Student: Kind of fiddling with Premiere. The different effects, colours and stuff. And just making the movie that we did with my group cause we had fun doing it and it was really funny.

Teacher: So why does that get you interested those little details and stuff?

Student: Cause it's something... cause I like. I'm like humorous. I like to laugh. I like to make people laugh so if that... if that video makes me laugh or makes other people laugh, then I'm happy. So it makes me enjoy it more.

Teacher: In that unit 1, video creation, kept you least engaged... and why?

Student: Kind of near the end part, putting the sounds. Having all the little details, sounds in the proper spots. Pictures in the proper spot. Videos... how it all has to mesh together.

Teacher: So why is that a challenge to keep you engaged?

Student: Cause it's boring. I don't really like that.

6. **Teacher: How did you feel about having to develop your own final project for the video creation unit?**

Student: It was pretty good because you got a variety of choices to do and then like we just made a bigger movie from our previous movie so we got time to expand and put details in that we couldn't put in in the first one.

Teacher: So that sounds like it was kind of a good thing?

Yeah, very.

7. **Teacher: What did you enjoy about developing your own final video project? Not enjoy? And why?**

Student: Just like the people doing it with, um the funny jokes inside the movie itself, the uh... different kinds of funny sounds that we could play.

Teacher: So you mentioned that it was in a group as well...

Student: Yeah,

Teacher: And that kind of connected for you? Kept you interested?

Student: Yeah, I like... I don't like working alone, I like working with people.

Teacher: Um... and what did you not enjoy about it? I have a feeling it might be the same as your previous stuff.

Student: Yeah, the fiddling. The very detailed stuff. Yeah.

8. **Teacher: How might your experiences have been different if you'd only been given one option for a final project? And why?**

Student: It'd be different... I think it'd be easier cause everyone's doing a kinetic type so you just choose a song, do your own thing (inaudible). Be easier, if you seen

someone else doing words, you could ask them how it worked. Just group work, basically. But doing your own thing. Like you could go running around to see what they're doing, put that into yours and create your own ideas.

Teacher: So that's a real positive.

Student: Yeah.

Teacher: So are there any negatives to doing it the same?

Student: Well, it's all the same thing. You don't get to see any movies, it's just all kinetic type. So say, we all end up watching them on the screen, it'd get really boring after a while. Yeah.

9. **Teacher: What excited you the most about your video final project? Least excited you?**

Student: The subject that we did it about. We did a paranormal school activity, so we made a lot of ghost jokes and stuff. It was really fun.

Teacher: So like your own development of that humour and...

Student: Yeah. It's a spoof, pretty much.

Teacher: So what least excited you about it?

Student: Yeah, the little details and fiddling and stuff. And just the time because it did take quite a long time to do. Yeah.

10. **Teacher: What parts of the video creation project held your focus and attention to detail the most? Least focus and attention? And why?**

Student: The most, um... was probably doing the actual videoing like not the scripts or anything. Even actually creating the video.

Teacher: Like your final project?

Student: Final project, yes.

Teacher: And... so why do you think that?

Student: Like, when we were doing the scripts, it was really hard for me to keep going. That's another thing that I struggle with, just keep, just writing and we had to have a minimum amount of words so we thought we were done but we were below the minimum so we had to keep creating more and more ideas.

Teacher: So what kept your attention the least?

Student: Doing the scripts.

Teacher: Why?

Student: I'm not a very 'english' person. Don't really like writing or reading. I can do both, but yeah, it's not my interest at all.

11. **Teacher: How were you able to stay focused on a long-term project that took several days to complete?**

Student: Um, see... I can stay focused on a project. I always do my homework so like it's... I'm kind of a person who likes to get it done right away. I don't like to wait. So very proactive. (?)

Teacher: So that's you. Is there anything about this room or the way its set up, like this space here or the environment or having your friends in the class, or the teacher? Anything else?

Student: Uh, yeah. Having a friend beside you that knows what he's doing uh... can really help. Stuff that can really bring you down is like the computers. The space. You have to come in like five minutes early just to get a computer. So...

12. **Teacher: As a student, what kinds of learning activities teaching help you stay most engaged? Least engaged?**

Student: Um... activities-wise uh, like, I'm kind of into architecture and stuff, so when we did that animation of the houses on Google sketchup that kind of interests me.

Teacher: So having it focused on your interest?

Student: Focused on my interests helped me keep going. Uh... uh friends and sitting beside them kept me going cause if I got like bored or.. it'd keep me going.

Teacher: Anything about teaching approaches?

Student: As long as the teacher really um just keeps you on task, to make sure you're not fooling around. That's really all you can do.

Teacher: And... is there any kind of teaching approach or learning activities that didn't keep you engaged?

Student: Not really, I really liked the way this class was taught. An example before, and if you need help, you'd still help, you wouldn't say "oh go look at the example or something". It's kind of learning yourself, and yet if you need help, it's fine.

Teacher: Any approaches even in other classes that just don't work?

Student: When teachers put something on the board and say teach yourself. They're not going to say that but they say "Okay, do the next questions" but you've got to teach yourself. It's kind of like teaching yourself.

13. **Teacher: What kept you most excited and enthusiastic in this class? Least excited and enthusiastic?**

Student: I liked doing the stickers 'cause I know a lot of people who needed stickers and I like doing them and they're easy for me.

Teacher: So it was kind of a fun, creative thing?

Student: Very, very!

Teacher: Things that were least excited and enthusiastic about in this class...

Student: Writing scripts. All the art stuff. Hands on art stuff. Some of the photoshop activities because... yeah. Some of them. But some of them were fine.

Teacher: Good then, maybe, to have choices, so you didn't have to do the ones that were not your thing?

Student: Yeah. It was good to have like a selection of like, your final project, you could either do an animation on Sketchup or do hands on art. Having the choice is really... it makes it easier to work.

Teacher: Might have been hard if you had to do a cell.

Student: Yeah. Cause I'm not a hands on kind of person.

14. **Teacher: If I could go back and re-teach the video creation unit for the class, what do you think I should change, and why?**

Student: Um... less scripts, because I could tell people weren't enjoying doing the scripts and when you're making a movie you're not really following the script, kind of like, doing your own thing sometimes. Like... I can't think of the word. Ad lib, or whatever. So, yeah. I... I... we didn't hardly follow our script, we'd added the whole thing pretty much.

Teacher: So anything else? Teaching style?

Student: No, you taught... the way you taught was fine. I learned a lot from it. And I'd take this class again if my timetable would let me, but I can't. My last year, so...

15. **Teacher: Are there any other things you'd like to mention regarding student engagement?**

Student: Uh. Like knowing that your friends are there. You can talk to them at lunchtime, or break, or in the class, if you have them. Just going to a fun class like this one, like, if you had math in the morning and then your afternoon was pretty much easy cause you could come to a class like this and just relax or get your math done.

Teacher: This class is set up differently than a lot of other classes even this discussion space and being able to move around. Does that help?

Student: Uh, yeah, that helps a lot, cause like I said before there were battles to get computers. A person could bring their own laptop, plug it in and be fine. And yeah, the whole room, if you wanted to do a higher... higher activities and stuff, as long as you're done your regular work. Yup!

Appendix O: Documentation of Class Environment

View from the front of the classroom:

Computer stations, billboards and projector:

Discussion space and light tables:

Green room printing area:

Audio Video suite:

Printing space and wet area:

<u>**Appendix P**</u>**: Theme Anthologies**

Theme 1: Classroom Environment.

1. "…[One choice....] you do the same thing... it'll just be over and over and over and it'll be boring" (Candice, January, 2012).

2. "[Maintaining focus...] Well, doing like the printmaking... we could work at the back tables or we could go sit in front of our computer or we could sit up here and you're not just limited to one space where you have to work on it" (Candice, January, 2012).

3. "[Maintaining focus...] the set up of the room like there's the computers and then there's the couches where you can think and just, like, work on it in your head and then you can go back to your computer" (Candice, January, 2012).

4. "[Enjoyment affected by...] if it's a boring classroom with nothing on the walls except paint and a chalkboard then that's not really exciting" (Candice, January, 2012).

5. "[Excited by...] you can do it better than just in a little space" (Candice, January, 2012).

6. "[Excited by...] having things to like, look at helps and that like, different things to look at helps too" (Candice, January, 2012).

7. "[Excited by...] Like where it is. Like in the classroom, that's okay, but in here it's really fun cause you can work on the computer or you can work here [discussion space] and it doesn't just limit you to one space in the classroom" (Candice, January, 2012).

8. "[Maintained focus by...] go back and fix those and then go take a break and review it and doing the same thing" (Candice, January, 2012).

9. "[Maintaining focus...] There was lots of parts when I was gone and then I was there and then I was not there" (Candice, January, 2012).

10. "[Enjoyment affected by...] Um... the other people in the class, cause lots of people in the class can be loud" (Candice, January, 2012).

11. "[Least engaged...] some people talk really loud and some people talk really quiet and then you just don't know where you are" (Candice, January, 2012).

12. "[Maintained focus by...] being in an isolated place and go sit down and view what you did" (Candice, January, 2012).

13. "[Excited by] nothing in particular in classes really gets me excited but I guess..." (Britney, January, 2012).

14. "[Maintaining focus] if I do like a chunk, a big chunk, and then I'll... I'll take a little break for like five minutes and just take a rest so it's not like you're so bored by the end of it, like, you just don't want to do it anymore" (Britney, January, 2012).

15. "[If there'd just been one choice...] I think it wouldn't have been as fun, or like, intriguing, cause like everyone is doing this" (Britney, January, 2012).

16. "if you have friends in the class it helps" (Jean, January, 2012).

17. "[One problem was that there] … weren't always enough computers for everybody" (Jean, January, 2012).

18. "I really liked how it [the classroom] was set up" (Jean, January, 2012).

19. "it was a big enough space for everybody to uh... get everything that they needed to be done" (Jean, January, 2012).

20. "[Maintaining focus] I would take breaks sometimes just to let your brain go" (Tamara, January, 2012).

21. "[Excited and enthused by...] Yeah, with the pictures and everything. It was nice" (Tamara, January, 2012).

22. "[Focus affected by...] you can go anywhere and you can just think about it and stuff. Like even if you can research something about it and like it'll be better and stuff" (Tamara, January, 2012).

23. "[Classroom Setup] A person could bring their own laptop, plug it in and be fine. And yeah, the whole room, if you wanted to do a higher... higher activities and stuff, as long as you're done your regular work" (Allen, January, 2012).

24. "There were battles to get computers" (Allen, January, 2012).

25. "Stuff that can really bring you down is like the computers. The space. You have to come in like five minutes early just to get a computer" (Allen, January, 2012).

26. "[Enjoyment affected by...] in this class there wasn't enough space. A battle to get to a computer every time. That affects it" (Allen, January, 2012).

27. "[If there was only one choice] it'd get really boring after a while" (Allen, January, 2012).

28. "…knowing that your friends are there. You can talk to them at lunchtime, or break, or in the class, if you have them" (Allen, January, 2012).

29. "[Kept engaged by...] friends and sitting beside them kept me going cause if I got like bored or.. it'd keep me going" (Allen, January, 2012).

30. "I don't like working alone, I like working with people" (Allen, January, 2012).

31. "[Enjoyed the project...] Just like the people doing it with" (Allen, January, 2012).

32. "Yes, friends if you don't get to see them 'cause we have the dual campus" (Allen, January, 2012).

33. "…friends if you can get a computer beside a friend, they can help you or make it go worse. (laughs) Positive and negative" (Allen, January, 2012).

34. "Having a friend beside you that knows what he's doing uh... can really help" (Allen, January, 2012).

35. "[Taking breaks] Yeah, that helps a lot with focus" (John, January, 2012).

36. "[Staying focused by...] taking breaks... five or ten minute breaks... going back to it after" (Mike, January, 2012).

37. "[Staying focused by...] listening to music while I go through it all" (Mike, January, 2012).

38. "[Staying focused by...] sitting on something comfortable" (Mike, January, 2012).

39. "[Liked how the room was] Decorated and everything like this one" (Mike, January, 2012).

40. "it's colourful like this one. Then if it's dull, then not really, you're just bored" (Mike, January, 2012).

41. "… a lot funner with friends" (Mike, January, 2012).

42. "…working with your friends and also actually working" (Mike, January, 2012).

43. "[Enjoyed it because...] I had friends in my class" (Hank, January, 2012).

44. "And like if I have my friends that can help me and it makes the day easier" (Hank, January, 2012).

45. "[Friends...] They can help you out" (Hank, January, 2012).

46. "[Excited...] to see new people and meet new people" (Hank, January, 2012).

Theme 2: Student Teacher Relationships.

1. "…the student and the teacher being engaged in the class" (Candice, January, 2012).

2. "…kind of mixing them [student and teacher approaches] together" (Candice, January, 2012).

3. "[Enjoyment affected by...] If the teacher is upbeat like you are then that makes it a lot more fun or if the teacher's just kind of boring and explains it, it's not really exciting" (Candice, January, 2012).

4. "…get involved with your class and stuff" (Britney, January, 2012).

5. "Like, some teachers just tell you what you need to do and that's the way they teach, but I prefer a teacher who, like, will actually get involved with the class and stuff" (Britney, January, 2012).

6. " [Teaching Learning] if I were to just like... textbooks I'm like... I like to read and stuff but sometimes they just don't really make sense so... (Britney, January, 2012).

7. "I don't like just like, doing worksheets and like textbook work, getting stuff like that" (Britney, January, 2012).

8. "…you get to interact with other people" (Jean, January, 2012).

9. "…she chose one and I chose one and then we tried to see where they could mash up" (Jean, January, 2012).

10. "[Regarding the teacher...] They have to be nice" (Jean, January, 2012).

11. "They have to like, interact with you, like be on a level like an understanding level and understand what you're going through if you're going through hard times and everything" (Jean, January, 2012).

12. "if you have a really good teacher and you like it a lot better" (Jean, January, 2012).

13. "[Teacher/student] They have to like, interact with you" (Jean, January, 2012).

14. "you did a good job getting the students involved" (Tamara, January, 2012).

15. "you take part it in" (Tamara, January, 2012).

16. "[It was good] being involved" (Tamara, January, 2012).

17. "So you get to interact with other people" (Tamara, January, 2012).

18. "[Excitement affected by...] then the teacher was good and so then it was just like... fun to be in here" (Tamara, January, 2012).

19. "[Enjoyment affected by...] Just like... the surrounding and the teacher of course" (Tamara, January, 2012).

20. "You're really positive all the time" (Tamara, January, 2012).

21. "[Teachers...] If they're positive and not so negative all the time, then yeah" (Tamara, January, 2012).

22. "[Teachers...] if they try to like, connect with their students, I think it's better than just like, saying the work and then just letting them do it by themselves... they got to help them" (Tamara, January, 2012).

23. "[Teaching approach that DOESN'T work...] I guess when you just have to write notes and copy them straight off the board. It's just like you're not learning anything you're just copying" (Tamara, January, 2012).

24. "[Teaching approach that DOESN'T work] just when they're talking nonstop and not letting us write it down. So like they just expect us to soak it up with our head" (Tamara, January, 2012).

25. "…helping out someone who needs help" (Allen, January, 2012).

26. "[Enjoyment affected by...] I think teachers really affect it. If it's a nice teacher" (Allen, January, 2012).

27. "I really liked the way this class was taught" (Allen, January, 2012).

28. "[Enjoyment affected...] if the teachers just always on your case or something" (Allen, January, 2012).

29. "[Teaching approach the DOESN'T work] When teachers put something on the board and say teach yourself. They're not going to say that but they say "Okay, do the next questions" but you've got to teach yourself. It's kind of like teaching yourself" (Allen, January, 2012).

30. "[Enjoy a class because of...] the work and the teachers and just how the class is presented" (John, January, 2012).

31. "[Does the teacher's personality affect it?] Yeah" (John, January, 2012).

32. "[Positive Teaching] It's kind of like the honest approaches" (John, January, 2012).

33. "…engaged with the students and working with other kids too" (Mike, January, 2012).

34. "[Enjoy a class based on...] Nice teacher" (Mike, January, 2012).

35. "[Nice teacher is...] people who don't yell at you" (Mike, January, 2012).

36. "[Least engaged by a teacher who...] demanding just telling me do this one way, do it my way, don't do it in that way" (Mike, January, 2012).

37. "[Enjoyment affected by...] teachers [who]are all good" (Hank, January, 2012).

38. "[Teaching approach that DOESN'T work] When the teacher just gives you a big piece of... sheet [sic] and just like do it yourself, cause like what're you supposed to do then? Happened last year" (Hank, January, 2012).

Theme 3: Teacher Student Affect.

1. "…[Enjoyment affected by...] If the teacher is upbeat like you are then that makes it a lot more fun or if the teacher's just kind of boring and explains it, it's not really exciting" (Candice, January, 2012).

2. "[Best teaching learning] if I sit down with my teacher and I can like talk to them about something that I'm not... all clear on. That usually helps me work things out" (Britney, January, 2012).

3. "Like, some teachers just tell you what you need to do and that's the way they teach, but I prefer a teacher who, like, will actually get involved with the class and stuff" (Britney, January, 2012).

4. "[Teacher...] They have to be nice" (Jean, January, 2012).

5. "They have to like, interact with you, like be on a level like an understanding level and understand what you're going through if you're going through hard times and everything" (Jean, January, 2012).

6. "If you have a really good teacher and you like it a lot better" (Jean, January, 2012).

7. "You explained everything to exactly how you wanted it so we knew what we had to do and we knew how to accomplish it" (Jean, January, 2012).

8. "You explained everything really well" (Jean, January, 2012).

9. "[Teacher/student] They have to like, interact with you" (Jean, January, 2012).

10. "[Teaching approaches] you gave us lots of freedom but you were still like, helped us to stay on task" (Tamara, January, 2012).

11. "[Learning Teaching] make sure that the instructions are clear and stuff" (Tamara, January, 2012).

12. "[Teachers...] I think it's better than just like, saying the work and then just letting them do it by themselves... they got to help them" (Tamara, January, 2012).

13. "You're really positive all the time" (Tamara, January, 2012).

14. "[Teachers...] If they're positive and not so negative all the time, then yeah" (Tamara, January, 2012).

15. "[Teachers...] if they try to like, connect with their students, I think it's better than just like, saying the work and then just letting them do it by themselves... they got to help them" (Tamara, January, 2012).

16. "[Excitement affected by...] then the teacher was good and so then it was just like... fun to be in here" (Tamara, January, 2012).

17. "[Enjoyment affected by...] Just like... the surrounding and the teacher of course" (Tamara, January, 2012).

18. "[Enjoyment affected by...] I think teachers really affect it. If it's a nice teacher" (Allen, January, 2012).

19. "I really liked the way this class was taught" (Allen, January, 2012).

20. "[Enjoyment affected by...] Or if the teachers just always on your case or something" (Allen, January, 2012).

21. "[Teaching Approaches] the way you taught was fine. I learned a lot from it" (Allen, January, 2012).

22. "[Teaching approaches...] As long as the teacher really um just keeps you on task, to make sure you're not fooling around. That's really all you can do" (Allen, January, 2012).

23. "[Positive Teaching] It's kind of like the honest approaches" (John, January, 2012).

24. "[Enjoy a class because of...] the work and the teachers and just how the class is presented" (John, January, 2012).

25. "[So the teacher's personality?] Yeah" (John, January, 2012).

26. "[Enjoy a class based on...] Nice teacher" (Mike, January, 2012).

27. "[Nice teacher is...] people who don't yell at you" (Mike, January, 2012).

28. "[Enjoy a class...] if the teacher really explains it well" (Hank, January, 2012).

29. "As students you know how to do it and then you really like look at what're we supposed to do" (Hank, January, 2012).

30. "[Affects enjoyment...] teachers are all good" (Hank, January, 2012).

Theme 4: Peer Support and Class Interactions.

1. "…[Enjoyment affected by...] they [the group] can do it one way and then you have another way and they just don't like that" (Candice, January, 2012).

2. "[Enjoyment affected by...] Most projects are usually group projects, so if I'm with people that I enjoy working with that's a big part of it because if your groups are chosen for you sometimes you end up with people who won't work and that's hard to do" (Britney, January, 2012).

3. "I really like class discussions" (Britney, January, 2012).

4. "…set us out in our groups to do it" (Jean, January, 2012).

5. "You get to be in like a group; (Jean, January, 2012).

6. "We had the four people in our group so we all contributed" (Jean, January, 2012).

7. "if you have friends in the class it helps" (Jean, January, 2012).

8. "[Excited and Enthused by...] And I liked the people in it too" (Tamara, January, 2012).

9. "If you have friends in the class, then you'll enjoy it more" (Tamara, January, 2012).

10. "[Enjoyment affected by...] Yeah, I'd rather be doing it with people than just all on my own" (Tamara, January, 2012).

11. "[Excited...] I like lots of group work and stuff like that" (Tamara, January, 2012).

12. "[Enjoyment affected by...] the people that are there" (Tamara, January, 2012).

13. "[Teaching Learning approaches...] Um... just be able to talk to other people" (Tamara, January, 2012).

14. "[Engaged by...] my group cause we had fun doing it and it was really funny" (Allen, January, 2012).

15. "…knowing that your friends are there. You can talk to them at lunchtime, or break, or in the class, if you have them" (Allen, January, 2012).

16. "[Kept engaged by...] friends and sitting beside them kept me going cause if I got like bored or... it'd keep me going" (Allen, January, 2012).

17. "I don't like working alone, I like working with people" (Allen, January, 2012).

18. "[Enjoyed the project...] Just like the people doing it with" (Allen, January, 2012).

19. "Yes, friends if you don't get to see them 'cause we have the dual campus" (Allen, January, 2012).

20. "Friends if you can get a computer beside a friend, they can help you or make it go worse. (laughs) Positive and negative" (Allen, January, 2012).

21. "Having a friend beside you that knows what he's doing uh... can really help" (Allen, January, 2012).

22. "A lot funner with friends" (Mike, January, 2012).

23. "…working with your friends and also actually working" (Mike, January, 2012).

24. "[Enjoyed] The group video because... it was because it was really fun" (Hank, January, 2012).

25. "[How much you enjoyed it affected by which...] group members are in your group" (Hank, January, 2012).

26. "[Enjoyed it because...] I had friends in my class" (Hank, January, 2012).

27. "And like if I have my friends that can help me and it makes the day easier" (Hank, January, 2012).

28. "[Friends...] They can help you out" (Hank, January, 2012).

29. "[Excited...] to see new people and meet new people" (Hank, January, 2012).

Theme 5: Peer Affect.

1. "[Enjoyment affected by...] they [the group] can do it one way and then you have another way and they just don't like that" (Candice, January, 2012).

2. "[Enjoyment affected by...] Most projects are usually group projects, so if I'm with people that I enjoy working with that's a big part of it because if your groups are chosen for you sometimes you end up with people who won't work and that's hard to do" (Britney, January, 2012).

3. "…if you have friends in the class it helps" (Jean, January, 2012).

4. "[Excited and Enthused by...] And I liked the people in it too" (Tamara, January, 2012).

5. "If you have friends in the class, then you'll enjoy it more" (Tamara, January, 2012).

6. "[Enjoyment affected by...] Yeah, I'd rather be doing it with people than just all on my own" (Tamara, January, 2012).

7. "[Excited...] I like lots of group work and stuff like that" (Tamara, January, 2012).

8. "[Enjoyment affected by...] the people that are there" (Tamara, January, 2012).

9. "[Engaged by...] my group cause we had fun doing it and it was really funny" (Allen, January, 2012).

10. "[It's good] knowing that your friends are there. You can talk to them at lunchtime, or break, or in the class, if you have them" (Allen, January, 2012).

11. "[Kept engaged by...] friends and sitting beside them kept me going cause if I got like bored or.. it'd keep me going" (Allen, January, 2012).

12. "I don't like working alone, I like working with people" (Allen, January, 2012).

13. "[Enjoyed the project...] Just like the people doing it with" (Allen, January, 2012).

14. "Yes, friends if you don't get to see them 'cause we have the dual campus" (Allen, January, 2012).

15. "…friends, if you can get a computer beside a friend, they can help you or make it go worse. (laughs) Positive and negative" (Allen, January, 2012).

16. "Having a friend beside you that knows what he's doing uh... can really help" (Allen, January, 2012).

17. "…a lot funner with friends" (Mike, January, 2012).

18. "…working with your friends and also actually working" (Mike, January, 2012).

19. "[Enjoyed] The group video because... it was because it was really fun" (Hank, January, 2012).

20. "[How much you enjoyed it affected by which...] group members are in your group" (Hank, January, 2012).

Theme 6: Graduated Structure for Independent Learning and Instruction.

1. "…[Not engaged if] there's one way that you can do it" (Candice, January, 2012).

2. "[Enjoyment affected by...] they [the group] can do it one way and then you have another way and they just don't like that" (Candice, January, 2012).

3. "[Better when] the teacher's not just talking to them and telling them how to do stuff" (Candice, January, 2012).

4. "…showing them how to do it one way and then the student doing it one way and then... and like adapting it" (Candice, January, 2012).

5. "[Excited by...] you have more possibilities of how to do it" (Candice, January, 2012).

6. "[Kept engaged by...] filming cause um... cause you get to make it what you want, and not what other people want" (Candice, January, 2012).

7. "[Engaged by...] Yeah that [the smaller daily activities] helped a lot cause you get to learn how to do things on it like with Photoshop, those helped cause lots of people didn't know what the icons did so they could fool around with it and learn how to do it" (Candice, January, 2012).

8. "[Most focus and attention...] Cutting it and like putting it all... putting pieces together" (Candice, January, 2012).

9. "[Enjoyed...] Having to come up with this really big idea of how to put it all together and edit it and make it like a good project... it was really, really elaborate" (Candice, January, 2012).

10. "[Final project...] I thought that was really good cause you gave us a bunch of options and you could do it your way but on your idea of a topic; (Candice, January, 2012).

11. "[Final project…] I thought it was going to be kind of hard cause we had so many options and they were all good options and you just didn't know what one to do" (Candice, January, 2012).

12. "[One choice....] you do the same thing... it'll just be over and over and over and it'll be boring" (Candice, January, 2012).

13. "[Reteach] I thought it was really good and I don't know what you could change. I don't think there would be anything that you should change" (Candice, January, 2012).

14. "[Least focus and attention] not really anything; (Britney, January, 2012).

15. "[Didn't enjoy...] Not... not at all, no" (Britney, January, 2012).

16. "[Least engaging] I don't think there was anything really that I disliked or anything. Like... it was all really enjoyable" (Britney, January, 2012).

17. "[Things enjoyed about final project...] I think just thinking up ideas and then finally like knowing what you were going to do and then just getting all excited about how you're going to do it" (Britney, January, 2012).

18. "[If there'd just been one choice...] I think it wouldn't have been as fun, or like, intriguing, cause like everyone is doing this" (Britney, January, 2012).

19. "[Final project] I actually kind of liked that. I think it was cool because we actually got to... we had a little freedom and space to move so it was like you didn't have to

for sure do something on 'this', you could like... use our own creativity in it"

(Britney, January, 2012).

20. "[Excited and engaged] I really liked working within Photoshop and Premiere. I
think that was what was really exciting for me because I was going into here and I
had like no knowledge whatsoever and I was worried that I wouldn't be able to do it
but then, when we actually got working, you know? It was really cool" (Britney,
January, 2012).

21. "[Kept engaged by...] I really liked working in Premiere. I thought that was really
fun, so I had to get it at home for myself" (Britney, January, 2012).

22. "I thought it was good cause like I think the daily projects especially really helped
because they you can kind of like hone those skills and you know what you're
doing then. (laughs) Otherwise you're just thrown into it" (Britney, January, 2012).

23. "[In this class we] didn't have to for sure do something on 'this', you could like...
use our own creativity in it" (Britney, January, 2012).

24. "I like to be more creative with it and think outside the box and think of something
that hasn't already been done" (Britney, January, 2012).

25. "[Best teaching learning] if I sit down with my teacher and I can like talk to them
about something that I'm not... all clear on. That usually helps me work things out"
(Britney, January, 2012).

26. "[Enjoyment affected by...] Most projects are usually group projects, so if I'm with
people that I enjoy working with that's a big part of it because if your groups are
chosen for you sometimes you end up with people who won't work and that's hard
to do" (Britney, January, 2012).

27. "I actually like to do hands on stuff every once in a while" (Britney, January, 2012).

28. "I learn better hands on than anything else like that's the one thing that if I can do then its... it's good" (Jean, January, 2012).

29. "…definitely back to the hands-on stuff [kept her engaged]; hands on work" (Jean, January, 2012).

30. "[In the class, you] set us out in our groups to do it" (Jean, January, 2012).

31. "…you get to be in like a group" (Jean, January, 2012).

32. "…we had the four people in our group so we all contributed" (Jean, January, 2012).

33. "If we had a... if we were stuck on one thing then you'd show us but you wouldn't do it for us" (Jean, January, 2012).

34. "You'd show us and then you'd make us do it again, so that we understood it" (Jean, January, 2012).

35. "[Good teachers...] they actually teach you things and even though you're like in a class it doesn't mean that you don't need a teacher's assistance when you do" (Jean, January, 2012).

36. "You explained everything to exactly how you wanted it so we knew what we had to do and we knew how to accomplish it" (Jean, January, 2012).

37. "[the teacher] you explained everything really well" (Jean, January, 2012).

38. "[Enjoy it] if you're interested in it" (Jean, January, 2012).

39. "I just like them really creative so I liked having um... having to be able to like, express that in many different ways" (Jean, January, 2012).

40. "You're using your creative ways to help you get better in that course" (Jean, January, 2012).

41. "[The projects] got your creativity going" (Jean, January, 2012).

42. "You can like add your style to things like when you're designing things" (Jean, January, 2012).

43. "… having like smaller things and then going bigger and bigger which that helped a lot" (Jean, January, 2012).

44. "[It] was easier than just jumping us into a bigger assignment" (Jean, January, 2012).

45. "They're just a lot of fun to do, and you're just so excited the next day to get working on it and it just kept you focused" (Jean, January, 2012).

46. "If you are really focused and you're really enjoying what you're doing, you just have fun with it" (Jean, January, 2012).

47. "…they were all fun projects so there wasn't any hard to stay focused" (Jean, January, 2012).

48. "You can design it whatever way you want" (Jean, January, 2012).

49. "…the option of choosing [improved enjoyment]" (Jean, January, 2012).

50. "You could choose one more to your liking" (Jean, January, 2012).

51. "It was a lot of fun to just try and uh... match the video to the music and try and match the video to the music" (Jean, January, 2012).

52. "You have an option of doing fun, challenging things" (Jean, January, 2012).

53. "It wasn't something strict along guidelines that you had to have this, you had to have this" (Jean, January, 2012).

54. "It was just play around with it and get a good final project" (Jean, January, 2012).

55. "It was a lot of fun to uh.. like to go beyond what you're used to" (Jean, January, 2012).

56. "We had to always think about well should we have it here instead of there or whatever" (Jean, January, 2012).

57. "You had to always be thinking of "should we have it uh... wide or close?" (Jean, January, 2012).

58. "It was kind of hard to think of something to do for it so it got us thinking really hard about that" (Jean, January, 2012).

59. "You don't have to like share your idea with somebody else" (Jean, January, 2012).

60. "You can come up with your own ideas" (Jean, January, 2012).

61. "No trying to compromise an idea, you could just go with your idea" (Jean, January, 2012).

62. "…you saw in your mind how you wanted to have it so you could develop it that way" (Jean, January, 2012).

63. "[One project choice] It would be harder" (Jean, January, 2012).

64. "[One project choice] some people might not like that as much, so they might not like appreciate doing that" (Jean, January, 2012).

65. "[Maintain focus by...] otherwise you just got to stay focused and think about what it's going to be like at the final project... like at the very end. What it's going to look like and you want it to be good. So then you're going to put a lot of effort into it" (Tamara, January, 2012).

66. "[Reteach] Not really. I like how you had it set up like it was good!" (Tamara, January, 2012).

67. "…you gave us lots of space to do what we wanted to [during the final project]" (Tamara, January, 2012).

68. "It's not that much of a big deal for me, I guess. Cause if you have to do it then you have to do it. But if you get the choice that's great... kind of thing" (Tamara, January, 2012).

69. "[One choice only...] I'd just be like 'it's school. You have to do it, I'll just do it. It's not a big deal" (Tamara, January, 2012).

70. "[Final project...] what you think you're good at. Do that instead of being forced to do something else. Yeah. I liked that" (Tamara, January, 2012).

71. "[Final project] we could even come up with our own projects, cause you gave us lots of freedom which was good" (Tamara, January, 2012).

72. "[Final project] I like how you gave us the options like... then we get to pick the ones we're more interested in" (Tamara, January, 2012).

73. "[Focus and attention] Like you had those daily assignments so that, like we were learning new things every day so that you had to keep up so that you could put all of it into your work. So if you missed something then your work won't be as good kind of thing. It was just leading up to the major thing" (Tamara, January, 2012).

74. "[Only one option] I uh... I would've... I wouldn't have felt as much freedom" (Tamara, January, 2012).

75. "[Teaching approaches] you gave us lots of freedom but you were still like, helped us to stay on task" (Tamara, January, 2012).

76. "[Learning Teaching] make sure that the instructions are clear and stuff" (Tamara, January, 2012).

77. "[Teachers...] I think it's better than just like, saying the work and then just letting them do it by themselves... they got to help them" (Tamara, January, 2012).

78. "[Teaching approach...] I like it when there's examples, so they have to show me how to do it instead of just tell me. Yeah... I'd rather see examples and then you get an idea and you can come up with your own like working off of that" (Tamara, January, 2012).

79. "…understanding what's going on" (Tamara, January, 2012).

80. "[Enjoyment affected by...] Yeah, I'd rather be doing it with people than just all on my own" (Tamara, January, 2012).

81. "[Excited...] I like lots of group work and stuff like that" (Tamara, January, 2012).

82. "[Engaged by...] my group cause we had fun doing it and it was really funny" (Allen, January, 2012).

83. "[Engagement is...] being on task working" (Allen, January, 2012).

84. "Doing what you're assigned to do or supposed to do" (Allen, January, 2012).

85. "[Teaching approach...] An example before, and if you need help, you'd still help, you wouldn't say "oh go look at the example or something". It's kind of learning yourself, and yet if you need help, it's fine" (Allen, January, 2012).

86. "[Teaching Approaches] the way you taught was fine. I learned a lot from it" (Allen, January, 2012).

87. "[Teaching approaches...] As long as the teacher really um just keeps you on task, to make sure you're not fooling around. That's really all you can do" (Allen, January, 2012).

88. "[So a creative thing?] Very, very!" (Allen, January, 2012).

89. "[Kept engaged by...] Focused on my interests helped me keep going" (Allen, January, 2012).

90. "[Focus and detail...] The most, um... was probably doing the actual videoing like not the scripts or anything. Even actually creating the video" (Allen, January, 2012).

91. "[Engaged by...] Kind of fiddling with Premiere. The different effects, colours and stuff. And just making the movie" (Allen, January, 2012).

92. " It was good to have like a selection of like, your final project" (Allen, January, 2012).

93. "Having the choice is really... it makes it easier to work" (Allen, January, 2012).

94. "[Final project...] It was pretty good because you got a variety of choices to do" (Allen, January, 2012).

95. "[If there was only one choice] it'd get really boring after a while" (Allen, January, 2012).

96. "[During the final project...] so we got time to expand and put details in that we couldn't put in in the first one" (Allen, January, 2012).

97. "[Least enjoyable] No I can't even think of one. This class was okay" (John, January, 2012).

98. "[Reteach] Nothing, it was good" (John, January, 2012).

99. "[Enjoyed the approach] people have more time to think about what they're going to do" (John, January, 2012).

100. "[Choosing Final Project] didn't feel that much different from anything else" (John, January, 2012).

101. "[Only one choice] Think little worse; then there's not that much freedom of what to do" (John, January, 2012).

102. "[Having one choice only] that wouldn't really be that fun cause no one would really... well like I can't have all the freedom to do the stuff and yeah" (John, January, 2012).

103. "[Independence] I just feel like good in the work I do and stuff so... Yeah" (John, January, 2012).

104. "[One choice] that wouldn't really be that fun cause no one would really... well like I can't have all the freedom to do the stuff and yeah" (John, January, 2012).

105. "[Engaged by final project because...] I just feel like good in the work I do and stuff" (John, January, 2012).

106. "[Engaged when you are] really liking something you're doing" (John, January, 2012).

107. "[Engaged by...] presenting them [the videos], kind of making your own video assignment" (John, January, 2012).

108. "[Engaged by...] presenting it and making the whole entire thing" (John, January, 2012).

109.   "[Engaged by...] presenting it and just making the entire thing" (John, January, 2012).

110.   "[Enjoyed because...] I might have an interest in it" (John, January, 2012).

111.   "[Enjoyment based on ...] Just like sometimes the assignments" (John, January, 2012).

112.   "[Positive teaching approach...] if it's a nice way they say it and not really demanding" (Mike, January, 2012).

113.   "[Enjoyment affected by personal interests] stuff I'm not a fan of" (Mike, January, 2012).

114.   "Freedom to do it [your own way] (Mike, January, 2012).

115.   "I just I like doing it free spirit way" (Mike, January, 2012).

116.   "2 You don't have to listen, whatever, you just do what you, uh... would like to see" (Mike, January, 2012).

117.   "[Enjoyed] working on my own story... basically making up my own story" (Mike, January, 2012).

118.   " Just make your own creation. It's something you really like; (Mike, January, 2012) .

119.   "[Like choosing your own projects] Yeah" (Mike, January, 2012).

120.   "[Enjoyed] not doing what going with basically what someone told me to do. Just make your own creation" (Mike, January, 2012).

121.   "Most exciting was well, like I said, watching Delbert dance and cutting it in" (Mike, January, 2012).

122.   "[If I only had one choice] I wouldn't have as much fun probably if they just told me do this, do it right, and get it done" (Mike, January, 2012).

123.   "[Reteach] No, I don't think so" (Hank, January, 2012).

124.   "[If I only had one choice] Would be a lot different cause some people aren't good at mashups, some people won't get it, some people will" (Hank, January, 2012).

125.   "[If you only had one choice] They would just slack off. They won't even care" (Hank, January, 2012).

126.   "…when you get a lot of choices you probably know what you want to do and you make it to... make it very good. You give your best effort" (Hank, January, 2012).

127.   "…they're like really into it" (Hank, January, 2012).

128.   "[Enjoy a class...] if the teacher really explains it well" (Hank, January, 2012).

129.   "As students you know how to do it and then you really like look at what're we supposed to do" (Hank, January, 2012).

130.   "[Best teaching activities...] The one like you explain and then you also show an example how you do it" (Hank, January, 2012).

131.   "[Enjoyed] The group video because... it was because it was really fun" (Hank, January, 2012).

132.   "[How much you enjoyed it affected by which...] group members are in your group" (Hank, January, 2012).

Theme 7: Student Freedom and Choice.

1. "[Enjoyment affected by...] they [the group] can do it one way and then you have another way and they just don't like that" (Candice, January, 2012).

2. "…showing them how to do it one way and then the student doing it one way and then... and like adapting it" (Candice, January, 2012).

3. "[Engaged by...] Yeah that [the smaller daily activities] helped a lot cause you get to learn how to do things on it like with Photoshop, those helped cause lots of people didn't know what the icons did so they could fool around with it and learn how to do it" (Candice, January, 2012).

4. "[Final project...] I thought that was really good cause you gave us a bunch of options and you could do it your way but on your idea of a topic" (Candice, January, 2012).

5. "I thought it was going to be kind of hard cause we had so many options and they were all good options and you just didn't know what one to do" (Candice, January, 2012).

6. "[Enjoyed...] taking parts that you liked of the movie and just putting them all together" (Britney, January, 2012).

7. "[Things enjoyed about final project...] I think just thinking up ideas and then finally like knowing what you were going to do and then just getting all excited about how you're going to do it" (Britney, January, 2012).

8. "[Final project] I actually kind of liked that. I think it was cool because we actually got to... we had a little freedom and space to move so it was like you didn't have to

for sure do something on 'this', you could like... use our own creativity in it"

(Britney, January, 2012).

9. "I thought it was good cause like I think the daily projects especially really helped

because they you can kind of like hone those skills and you know what you're

doing then. (laughs) Otherwise you're just thrown into it" (Britney, January, 2012).

10. "[Enjoyment affected by...] Most projects are usually group projects, so if I'm with

people that I enjoy working with that's a big part of it because if your groups are

chosen for you sometimes you end up with people who won't work and that's hard

to do" (Britney, January, 2012).

11. "I actually like to do hands on stuff every once in a while" (Britney, January, 2012).

12. "I learn better hands on than anything else like that's the one thing that if I can do

then its... it's good; definitely back to the hands-on stuff [kept her engaged] (Jean,

January, 2012).

13. "…hands on work" (Jean, January, 2012).

14. "…set us out in our groups to do it" (Jean, January, 2012).

15. "…you get to be in like a group" (Jean, January, 2012).

16. "…we had the four people in our group so we all contributed" (Jean, January,

2012).

17. "[Liked] having like smaller things and then going bigger and bigger which that

helped a lot" (Jean, January, 2012).

18. "…was easier than just jumping us into a bigger assignment" (Jean, January, 2012).

19. "You could choose one more to your liking" (Jean, January, 2012).

20. "It was a lot of fun to just try and uh... match the video to the music and try and match the video to the music" (Jean, January, 2012).

21. "You have an option of doing fun, challenging things" (Jean, January, 2012).

22. "It wasn't something strict along guidelines that you had to have this, you had to have this" (Jean, January, 2012).

23. "It was just play around with it and get a good final project" (Jean, January, 2012).

24. "You don't have to like share your idea with somebody else" (Jean, January, 2012).

25. "You can come up with your own ideas" (Jean, January, 2012).

26. "No trying to compromise an idea, you could just go with your idea" (Jean, January, 2012).

27. "You saw in your mind how you wanted to have it so you could develop it that way" (Jean, January, 2012).

28. "[Enjoyed...] I liked how you got us to write scripts, cause that got us to like relate not just to the filming side of the movies but kind of the directing side too" (Tamara, January, 2012).

29. "You gave us lots of space to do what we wanted to [during the final project]" (Tamara, January, 2012).

30. "[Final project...] what you think you're good at. Do that instead of being forced to do something else. Yeah. I liked that" (Tamara, January, 2012).

31. "[Final project] we could even come up with our own projects, cause you gave us lots of freedom which was good" (Tamara, January, 2012).

32. "[Final project] I like how you gave us the options like... then we get to pick the ones we're more interested in" (Tamara, January, 2012).

33. "[Focus and attention] Like you had those daily assignments so that, like we were learning new things every day so that you had to keep up so that you could put all of it into your work. So if you missed something then your work won't be as good kind of thing. It was just leading up to the major thing" (Tamara, January, 2012).

34. "[Teaching approaches] you gave us lots of freedom but you were still like, helped us to stay on task" (Tamara, January, 2012).

35. "understanding what's going on" (Tamara, January, 2012).

36. "[Enjoyment affected by...] Yeah, I'd rather be doing it with people than just all on my own" (Tamara, January, 2012).

37. "[Excited...] I like lots of group work and stuff like that" (Tamara, January, 2012).

38. "[Engaged by...] my group cause we had fun doing it and it was really funny" (Allen, January, 2012).

39. "[Engagement is...] being on task working" (Allen, January, 2012).

40. "Doing what you're assigned to do or supposed to do" (Allen, January, 2012).

41. "[Teaching approaches...] As long as the teacher really um just keeps you on task, to make sure you're not fooling around. That's really all you can do" (Allen, January, 2012).

42. "3 It was good to have like a selection of like, your final project" (Allen, January, 2012).

43. "Having the choice is really... it makes it easier to work" (Allen, January, 2012).

44. "[Final project...] It was pretty good because you got a variety of choices to do" (Allen, January, 2012).

45. "[During the final project...] so we got time to expand and put details in that we couldn't put in in the first one" (Allen, January, 2012).

46. "[Enjoyed the approach] people have more time to think about what they're going to do" (John, January, 2012).

47. "[Independence] I just feel like good in the work I do and stuff so... Yeah" (John, January, 2012).

48. "[One choice] that wouldn't really be that fun cause no one would really... well like I can't have all the freedom to do the stuff and yeah" (John, January, 2012).

49. "[Engaged by final project because...] I just feel like good in the work I do and stuff" (John, January, 2012).

50. "…really liking something you're doing" (John, January, 2012).

51. "[Positive teaching approach...] if it's a nice way they say it and not really demanding" (Mike, January, 2012).

52. "Just make your own creation. It's something you really like" (Mike, January, 2012).

53. "[Like choosing your own projects] Yeah" (Mike, January, 2012).

54. "[Enjoyed] not doing what going with basically what someone told me to do. Just make your own creation" (Mike, January, 2012).

55. "[Most excited by] you get to take characters and put them on a place... in a place where they cannot exist" (Hank, January, 2012).

56. "[Exciting to] take characters out of that and put them in" (Hank, January, 2012).

57. "[If I only had one choice] Would be a lot different cause some people aren't good at mashups, some people won't get it, some people will" (Hank, January, 2012).

58. "[If you only had one choice] They would just slack off. They won't even care" (Hank, January, 2012).

59. "When you get a lot of choices you probably know what you want to do and you make it to... make it very good. You give your best effort" (Hank, January, 2012).

60. "They're like really into it" (Hank, January, 2012).

61. "[Enjoyed] The group video because... it was because it was really fun" (Hank, January, 2012).

62. "[How much you enjoyed it afftected by which...] group members are in your group" (Hank, January, 2012).

Theme 8: Supported Student-Centered Learning Independent Inquiry.

1. "…the student and the teacher being engaged in the class" (Candice, January, 2012).

2. "[Enjoyment affected by...] they [the group] can do it one way and then you have another way and they just don't like that" (Candice, January, 2012).

3. "[Excited by...] Well, learning new things" (Candice, January, 2012).

4. "[Focus and detail...] I think editing it is kind of really fun cause you can make it what parts you want and you can take pieces of one part and put another pieces of other parts together" (Candice, January, 2012).

5. "The teacher's not just talking to them and telling them how to do stuff" (Candice, January, 2012).

6. "[Excited by...] you have more possibilities of how to do it" (Candice, January, 2012).

7. "[Kept engaged by...] filming cause um... cause you get to make it what you want, and not what other people want" (Candice, January, 2012).

8. "[Most focus and attention...] Cutting it and like putting it all... putting pieces together; [Enjoyed...] Having to come up with this really big idea of how to put it all together and edit it and make it like a good project... it was really, really elaborate" (Candice, January, 2012).

9. "[Enjoyment affected by...] The subject that you have to do it on" (Candice, January, 2012).

10. "[In this class it was] kind of mixing them [student and teacher approaches] together" (Candice, January, 2012).

11. "[Excited by...] it depends on what class, I guess. So like, I dunno... More classes will have more exciting things than some, like, I won't be excited as much for like math, as I am for science, because I'm more... I lean more that way" (Britney, January, 2012).

12. "[Things enjoyed about final project...] I think just thinking up ideas and then finally like knowing what you were going to do and then just getting all excited about how you're going to do it" (Britney, January, 2012).

13. "[Final project] I actually kind of liked that. I think it was cool because we actually got to... we had a little freedom and space to move so it was like you didn't have to for sure do something on 'this', you could like... use our own creativity in it" (Britney, January, 2012).

14. "[Excited and engaged] I really liked working within Photoshop and Premiere. I think that was what was really exciting for me because I was going into here and I had like no knowledge whatsoever and I was worried that I wouldn't be able to do it but then, when we actually got working, you know? It was really cool" (Britney, January, 2012).

15. "[Kept engaged by...] I really liked working in Premiere. I thought that was really fun, so I had to get it at home for myself" (Britney, January, 2012).

16. "[You] didn't have to for sure do something on 'this', you could like... use our own creativity in it" (Britney, January, 2012).

17. "I like to be more creative with it and think outside the box and think of something that hasn't already been done" (Britney, January, 2012).

18. "[Enjoyment affected by...] Most projects are usually group projects, so if I'm with people that I enjoy working with that's a big part of it because if your groups are chosen for you sometimes you end up with people who won't work and that's hard to do" (Britney, January, 2012).

19. "If I'm actually verbally speaking to someone about something and then I remember it better" (Britney, January, 2012).

20. "[We got to] talk in class" (Britney, January, 2012).

21. "…get involved with your class and stuff"(Britney, January, 2012).

22. "You get to interact with other people"(Jean, January, 2012).

23. "[During the final project…] She chose one and I chose one and then we tried to see where they could mash up" (Jean, January, 2012).

24. "…set us out in our groups to do it" (Jean, January, 2012).

25. "…you get to be in like a group" (Jean, January, 2012).

26. "…we had the four people in our group so we all contributed" (Jean, January, 2012).

27. "[You] learn more about it so that you can... so you're able to do more things" (Jean, January, 2012).

28. "…it was a lot of fun" (Jean, January, 2012).

29. …if you are really focused and you're really enjoying what you're doing, you just have fun with it" (Jean, January, 2012).

30. "…was a lot of fun cause you got to... you got to make like almost your own movie" (Jean, January, 2012).

31. "…It was a lot of fun" (Jean, January, 2012).

32. "…a lot of fun; got you to have fun" (Jean, January, 2012).

33. "The acting part of it cause we had a lot of fun" (Jean, January, 2012).

34. "We all had a lot of fun trying to like think of what camera angles and what like facial expressions" (Jean, January, 2012).

35. "You also just could have fun with it everything that we should do so it was a lot of fun" (Jean, January, 2012).

36. "It was also really fun to do like different animations like with the titles and learn whatever you had to do" (Jean, January, 2012).

37. "If we had a... if we were stuck on one thing then you'd show us but you wouldn't do it for us" (Jean, January, 2012).

38. "You'd show us and then you'd make us do it again, so that we understood it" (Jean, January, 2012).

39. "[Good teacher is...] they actually teach you things and even though you're like in a class it doesn't mean that you don't need a teacher's assistance when you do" (Jean, January, 2012).

40. "if you're interested in it" (Jean, January, 2012).

41. "I just like them really creative so I liked having um... having to be able to like, express that in many different ways" (Jean, January, 2012).

42. "You're using your creative ways to help you get better in that course" (Jean, January, 2012).

43. "…got your creativity going" (Jean, January, 2012).

44. "You can like add your style to things like when you're designing things" (Jean, January, 2012).

45. "[Teacher/student] They have to like, interact with you" (Jean, January, 2012).

46. "You can design it whatever way you want" (Jean, January, 2012).

47. "…the option of choosing [your project improved enjoyment] (Jean, January, 2012).

48. "You could choose one more to your liking" (Jean, January, 2012).

49. "…it was just play around with it and get a good final project" (Jean, January, 2012).

50. "You don't have to like share your idea with somebody else" (Jean, January, 2012).

51. "You can come up with your own ideas" (Jean, January, 2012).

52. "You gave us lots of space to do what we wanted to [during the final project]" (Tamara, January, 2012).

53. "[Enjoyment affected by...] just the stuff we're doing in general. So like, if it's like Social, I won't enjoy it. But if it's like Math, or even this, like... like New Media, then I'll enjoy it" (Tamara, January, 2012).

54. "[Teacher must create...] Uh... they have to give off a positive environment" (Tamara, January, 2012).

55. "[Final project] we could even come up with our own projects, cause you gave us lots of freedom which was good" (Tamara, January, 2012).

56. "[Only one option] I uh... I would've... I wouldn't have felt as much freedom" (Tamara, January, 2012).

57. "[Teaching approach...] I like it when there's examples, so they have to show me how to do it instead of just tell me. Yeah... I'd rather see examples and then you get

an idea and you can come up with your own like working off of that" (Tamara, January, 2012).

58. "[Enjoyment affected by...] it's just got to be fun, I guess" (Tamara, January, 2012).

59. "…fun to be in here" (Tamara, January, 2012).

60. "Things were fun and uh... nope, I think you did a good job" (Tamara, January, 2012).

61. "[Enjoyment affected by...] Yeah, I'd rather be doing it with people than just all on my own" (Tamara, January, 2012).

62. "[Excited...] I like lots of group work and stuff like that" (Tamara, January, 2012).

63. "You get to say what you think and stuff like that" (Tamara, January, 2012).

64. "You did a good job getting the students involved" (Tamara, January, 2012).

65. "You take part it in" (Tamara, January, 2012).

66. "[Engaged by] being involved" (Tamara, January, 2012).

67. "So you get to interact with other people" (Tamara, January, 2012).

68. "…helping out someone who needs help" (Allen, January, 2012).

69. "[Engaged by...] my group cause we had fun doing it and it was really funny" (Allen, January, 2012).

70. "Just going to a fun class like this one" (Allen, January, 2012).

71. "[Excited by..] we made a lot of ghost jokes and stuff. It was really fun" (Allen, January, 2012).

72. "[Enjoyment affected by...] Whatever you find is fun. Whatever you like doing. If you're going to do that in a class, then you're going to like the class" (Allen, January, 2012).

73. "I'm like humorous. I like to laugh. I like to make people laugh so if that... if that video makes me laugh or makes other people laugh, then I'm happy" (Allen, January, 2012).

74. "[Teaching approach...] An example before, and if you need help, you'd still help, you wouldn't say "oh go look at the example or something". It's kind of learning yourself, and yet if you need help, it's fine" (Allen, January, 2012).

75. "[So a creative thing?] Very, very!" (Allen, January, 2012).

76. "[Kept engaged by...] Focused on my interests helped me keep going" (Allen, January, 2012).

77. "[Focus and detail...] The most, um... was probably doing the actual videoing like not the scripts or anything. Even actually creating the video" (Allen, January, 2012).

78. "[Engaged by...] Kind of fiddling with Premiere. The different effects, colours and stuff. And just making the movie" (Allen, January, 2012).

79. "[Enjoyed...] The subject that we did it about" (Allen, January, 2012).

80. "…it's more based on personal preference on what you like doing. Like if you're coming into a class liking art, then you might like the art stuff like those girls were" (Allen, January, 2012).

81. "[Enjoyment affected by...] Uh just the things that you do in a class. For example math, like if there's a section in math that you like doing then you might like math but then if it's one out of nine subjects you like then you might not enjoy it" (Allen, January, 2012).

82. "[During the final project...] so we got time to expand and put details in that we couldn't put in in the first one" (Allen, January, 2012).

83. "[Enjoyed the approach] people have more time to think about what they're going to do" (John, January, 2012).

84. "[Subject matter affects enjoyment...] when someone, like likes Science or something, and then they're in a Science class, just stuff I don't know. Cause someone might like doing some of the stuff in the class" (John, January, 2012).

85. "[Excited by...] Sometimes the stuff we do inside it" (John, January, 2012).

86. "[Stayed focused by...] I was just enjoying the stuff I do so... (John, January, 2012).

87. "[Independence] I just feel like good in the work I do and stuff so... Yeah" (John, January, 2012).

88. "[One choice] that wouldn't really be that fun cause no one would really... well like I can't have all the freedom to do the stuff and yeah" (John, January, 2012).

89. "[Engaged by final project because...] I just feel like good in the work I do and stuff" (John, January, 2012).

90. "[Engaged by] really liking something you're doing" (John, January, 2012).

91. "[Engaged by...] presenting them [the videos], kind of making your own video assignment" (John, January, 2012).

92. "[Engaged by] presenting it and making the whole entire thing" (John, January, 2012).

93. "[Engaged by] presenting it and just making the entire thing" (John, January, 2012).

94. "[Enjoyed because...] I might have an interest in it" (John, January, 2012).

95. "[Enjoyment based on ...] Just like sometimes the assignments" (John, January, 2012).

96. "[Liked being] engaged with the students and working with other kids too" (Mike, January, 2012).

97. "[Learning how to] doing the voiceovers and everything" (Mike, January, 2012).

98. "It's fun, it's fun" (Mike, January, 2012).

99. "Basically if it's fun [course], I like it" (Mike, January, 2012).

100.   "[Enjoyment affected by personal interests] stuff I'm not a fan of" (Mike, January, 2012).

101.   "Freedom to do it [your own way] (Mike, January, 2012).

102.   "I just I like doing it free spirit way" (Mike, January, 2012).

103.   "You don't have to listen, whatever, you just do what you, uh... would like to see" (Mike, January, 2012).

104.   "[Enjoyed] working on my own story... basically making up my own story" (Mike, January, 2012).

105.   "Just make your own creation. It's something you really like" (Mike, January, 2012).

106.   "[Like choosing your own projects] Yeah" (Mike, January, 2012).

107.   "[Subject matter affects enjoyment] Sometime, like math, that's my good part of it. If I take LA... I really don't like writing. It's like math comes to me but LA really... yeah. Like LA is good but just the essays. Just the format" (Hank, January, 2012).

108.   "[If you only had one choice] They would just slack off. They won't even

care" (Hank, January, 2012).

109.   "They're like really into it" (Hank, January, 2012).

110.   "[Best teaching activities...] The one like you explain and then you also

show an example how you do it" (Hank, January, 2012).

111.   "The project that took several days were probably fun. Yeah, that's why.

That's why you just stay focused" (Hank, January, 2012).

112.   "I got to learn a lot about new programs and uh... how you can use them"

(Hank, January, 2012).

113.   "[Excited...] To learn something new" (Hank, January, 2012).

114.   "[Enjoyed] The group video because... it was because it was really fun"

(Hank, January, 2012).

115.   "[How much you enjoyed it affected by which...] group members are in your

group" (Hank, January, 2012).

Theme 9: Student-Centric Coping and Thriving Methods.

1. "[Maintained focus by...] go back and fix those and then go take a break and review it and doing the same thing" (Candice, January, 2012).

2. "[Maintaining focus...] There was lots of parts when I was gone and then I was there and then I was not there" (Candice, January, 2012).

3. "[Maintained focus by...] being in an isolated place and go sit down and view what you did" (Candice, January, 2012).

4. "[Maintained focus by...]I would take pieces that I really liked and then I would work on that. And then I would go on the pieces that I didn't like and then I would go back to pieces that I did like" (Candice, January, 2012).

5. "[Maintaining focus] if I do like a chunk, a big chunk, and then I'll... I'll take a little break for like five minutes and just take a rest so it's not like you're so bored by the end of it, like, you just don't want to do it anymore" (Britney, January, 2012).

6. "[Kept engaged by...] the big project was lots of fun" (Britney, January, 2012).

7. "If you have friends in the class it helps" (Jean, January, 2012).

8. "[Enjoyed final project} really liked having it" (Jean, January, 2012).

9. "[Maintain focus by...] otherwise you just got to stay focused and think about what it's going to be like at the final project... like at the very end. What it's going to look like and you want it to be good. So then you're going to put a lot of effort into it" (Tamara, January, 2012).

10. "[Maintaining focus] I would take breaks sometimes just to let your brain go" (Tamara, January, 2012).

11. "[Excited and Enthused by...] And I liked the people in it too" (Tamara, January, 2012).

12. "If you have friends in the class, then you'll enjoy it more" (Tamara, January, 2012).

13. "Knowing that your friends are there. You can talk to them at lunchtime, or break, or in the class, if you have them" (Allen, January, 2012).

14. "[Kept engaged by...] friends and sitting beside them kept me going cause if I got like bored or... it'd keep me going" (Allen, January, 2012).

15. "I don't like working alone, I like working with people" (Allen, January, 2012).

16. "[Enjoyed the project...] Just like the people doing it with" (Allen, January, 2012).

17. "Yes, friends if you don't get to see them 'cause we have the dual campus" (Allen, January, 2012).

18. "Friends if you can get a computer beside a friend, they can help you or make it go worse. (laughs) Positive and negative" (Allen, January, 2012).

19. "Having a friend beside you that knows what he's doing uh... can really help" (Allen, January, 2012).

20. "[Taking breaks] Yeah, that helps a lot with focus" (John, January, 2012).

21. "A lot funner with friends" (Mike, January, 2012).

22. "…working with your friends and also actually working" (Mike, January, 2012).

23. "[Choosing Final Project] It was a little bit better... lot easier though [the second year]" (Mike, January, 2012).

24. "[Staying focused by...] listening to music while I go through it all" (Mike, January, 2012).

25. "[Staying focused by...] taking breaks... five or ten minute breaks... going back to it after" (Mike, January, 2012).

26. "You can still take the time, take a break, taking breaks" (Hank, January, 2012).

27. "[Enjoyed final project] That was great. Cause we already learned everything and now we get to... we get to put everything together and make a big project" (Hank, January, 2012).

28. "[Enjoyed it because...] I had friends in my class" (Hank, January, 2012).

29. "And like if I have my friends that can help me and it makes the day easier" (Hank, January, 2012).

30. "[Friends...] They can help you out" (Hank, January, 2012).

31. "[Excited...] to see new people and meet new people" (Hank, January, 2012).

Theme 10: Personal Challenges during the Video Project.

1. "…[Not engaged] you might not get the same thing that you need to so it's difficult" (Candice, January, 2012).

2. "[Most engaged] The actual filming" (Candice, January, 2012).

3. "[Least engaged...] Having to edit it" (Candice, January, 2012).

4. "[Least engaged by the film] Because that was the hardest part" (Candice, January, 2012).

5. "[Least exciting] Some of the bits were a little bit too long. Or just a little bit too short, Or they didn't go along with what I thought it would be" (Candice, January, 2012).

6. "[If there'd been one choice...] I think it would've been okay, but not the best cause everybody is doing the same thing" (Candice, January, 2012).

7. "…cause you can get a bunch of ideas from other people that are doing the same project and you can just put it into your own project" (Candice, January, 2012).

8. "[Least engaged...] Photoshop, cause I thought it was really hard. Cause you want it to be perfect but you can't always get it to be perfect and then you would focus so hard and then you would forget which stuff... what you did" (Candice, January, 2012).

9. "[Least engaged...] If we have to do it all together. Everybody has to participate, cause lots of people get lost" (Candice, January, 2012).

10. "[Least engaged by...] least was probably like the last unit... the animation. I found it just... it wasn't as intriguing to me" (Britney, January, 2012).

11. "[If there'd been one choice...] or it might have gone the other way and been more of a challenge cause everybody's doing it so you want to do something that stands out" (Britney, January, 2012).

12. "[Focus and attention] I just wanted everything. I did a kinetic type so I had to... I really wanted the words to be spot on so I had to go through those so many times to make sure it was perfect" (Britney, January, 2012).

13. "[Least exciting...] the editing, like once it was all done and having to go and make sure that everything was perfect. That was least exciting" (Britney, January, 2012).

14. "[Focus and attention] had to go through those [song and words] so many times to make sure it was perfect" (Britney, January, 2012).

15. "[Not engaged] go and read the textbook or something" (Britney, January, 2012).

16. "[Not engaged] than just like reading through a textbook" (Jean, January, 2012).

17. "[Focus] We really had to think about the camera angles and the close ups and everything" (Jean, January, 2012).

18. "[Least engaging] it took so much time to edit it all" (Jean, January, 2012).

19. "[Least engaging] it just took so much time" (Jean, January, 2012).

20. "[Least engaing] just so exhausting to get it all done" (Jean, January, 2012).

21. "[Least exciting] not something that I wanted to do at all" (Jean, January, 2012).

22. "[Least enjoyed] I didn't like being in front of the camera" (Jean, January, 2012).

23. "[Least engaged] We had to go over this one part over and over" (Jean, January, 2012).

24. "…it was so tiring to keep going over and over and over and over" (Jean, January, 2012).

25. "It was a little overwhelming but just like... well, it still is a little bit confusing but you understand it" (Jean, January, 2012).

26. "[Least exciting] Photoshop. At first that really scared me" (Jean, January, 2012).

27. "[Least enjoyed] one time I saved it and it didn't save properly and I lost it and then I had to restart the whole thing" (Tamara, January, 2012).

28. "[Least attention and focus] Sometimes if it looked really confusing" (Tamara, January, 2012).

29. "[Enjoyment affected by...] Uh... if you know what you're doing. (laughs) If you're really confused then you're not going to have any fun" (Tamara, January, 2012).

30. "[Least enjoyed] I hate being on camera so I didn't want to be in the film" (Tamara, January, 2012).

31. "[Most engaged by...] I liked that one when you picked a song and you put the words in" (Tamara, January, 2012).

32. "[Least excited] the little details and fiddling and stuff. And just the time because it did take quite a long time to do. Yeah" (Allen, January, 2012).

33. "[Least engaging] Yeah, the fiddling. The very detailed stuff. Yeah" (Allen, January, 2012).

34. " [Least engaged...] Kind of near the end part, putting the sounds. Having all the little details, sounds in the proper spots. Pictures in the proper spot. Videos... how it all has to mesh together" (Allen, January, 2012).

35. "[If you only had one choice...] It'd be different... I think it'd be easier cause everyone's doing a kinetic type so you just choose a song, do your own thing

(inaudible). Be easier, if you seen someone else doing words, you could ask them how it worked" (Allen, January, 2012).

36. "[If there was only one choice…] you could go running around to see what they're doing, put that into yours and create your own ideas" (Allen, January, 2012).

37. "[Least excited by...] Writing scripts. All the art stuff. Hands on art stuff. Some of the photoshop activities because... yeah. Some of them. But some of them were fine" (Allen, January, 2012).

38. " [Least focus and attention] when we were doing the scripts, it was really hard for me to keep going. That's another thing that I struggle with, just keep, just writing and we had to have a minimum amount of words so we thought we were done but we were below the minimum so we had to keep creating more and more ideas" (Allen, January, 2012).

39. "I 'm not a very 'english' person. Don't really like writing or reading. I can do both, but yeah, it's not my interest at all" (Allen, January, 2012).

40. "[Least engaged...] Cause it's boring. I don't really like that" (Allen, January, 2012).

41. "[Reteach] Um... less scripts because I could tell people weren't enjoying doing the scripts" (Allen, January, 2012).

42. "[Least engaged] sometimes when like Photoshop or something wasn't working and then I had to try to fix up some photos" (John, January, 2012).

43. "[Not engaged because] I just get kind of frustrated with it" (John, January, 2012).

44. "[Least engaging] Just kind of like fixing up previous stuff over and over. That kind of gets boring" (John, January, 2012).

45. "[Focus and attention] making them blend in perfectly with it" (Mike, January, 2012).

46. "[Least exciting] just doing stuff on the computer instead of like, going out and doing it" (Mike, January, 2012).

47. "[Final Project] I didn't want to do it [my first year]; too much pressure when at first you're doing it" (Mike, January, 2012).

48. "Least exciting was um... not really being able to go into the video with him" (Mike, January, 2012).

49. "[Least exciting…] one was not being in it [the video]"(Mike, January, 2012).

50. "[Not engaged] if I don't get enough sleep I won't have fun in class or anything"(Mike, January, 2012).

51. "[Least engaged when] sometimes the tools, I didn't know where they were" (Hank, January, 2012).

52. "[Least enjoyed] least favourite was just to like make the perfect shape and cut 'em out" (Hank, January, 2012).

53. "Least focused was backgrounds. Really didn't matter what they were" (Hank, January, 2012).

Theme 11: Positive Affective Impact of the Video Project.

1. "…[Excited by...] When it finally all came together and it like was finished and it was really, really good" (Candice, January, 2012).

2. "[Excited by...] Well, learning new things" (Candice, January, 2012).

3. "[Focus and detail...] I think editing it is kind of really fun cause you can make it what parts you want and you can take pieces of one part and put another pieces of other parts together" (Candice, January, 2012).

4. "[Enjoyment affected by...] The subject that you have to do it on" (Candice, January, 2012).

5. "[Excited by...] And having people tell you how fun it is, that gets me excited cause... when something's fun you really want to do it" (Candice, January, 2012).

6. "[Maintained focus by...]I would take pieces that I really liked and then I would work on that. And then I would go on the pieces that I didn't like and then I would go back to pieces that I did like" (Candice, January, 2012).

7. "[Most excited...] you didn't have to like do one thing you could do any kind of sticker or anything on a mirror or any kind of print" (Candice, January, 2012).

8. "[Excited by...] it depends on what class, I guess. So like, I dunno... More classes will have more exciting things than some, like, I won't be excited as much for like math, as I am for science, because I'm more... I lean more that way" (Britney, January, 2012).

9. "[Enjoyed...] taking parts that you liked of the movie and just putting them all together" (Britney, January, 2012).

10. "[Kept engaged by...] the big project was lots of fun" (Britney, January, 2012).

11. "Most exciting was uh... like getting to use everything that I'd learned. cool because it was like Oh, I can do this now" (Britney, January, 2012).

12. "I really like learning programs and how to work them. I thought that was cool" (Britney, January, 2012).

13. "I really like class discussions" (Britney, January, 2012).

14. "[Engaged by being able to] you ask questions" (Britney, January, 2012).

15. "If I'm actually verbally speaking to someone about something and then I remember it better" (Britney, January, 2012).

16. "[Better when I get to] talk in class" (Britney, January, 2012).

17. "Cool to learn how to do and to actually do that [make videos]" (Jean, January, 2012).

18. "learn more about it so that you can... so you're able to do more things" (Jean, January, 2012).

19. "It was a lot of fun" (Jean, January, 2012).

20. "If you are really focused and you're really enjoying what you're doing, you just have fun with it" (Jean, January, 2012).

21. "It was a lot of fun cause you got to... you got to make like almost your own movie" (Jean, January, 2012).

22. "It was a lot of fun" (Jean, January, 2012).

23. "A lot of fun" (Jean, January, 2012).

24. "[It] got you to have fun" (Jean, January, 2012).

25. "The acting part of it cause we had a lot of fun" (Jean, January, 2012).

26. "We all had a lot of fun trying to like think of what camera angles and what like facial expressions" (Jean, January, 2012).

27. "You also just could have fun with it" (Jean, January, 2012).

28. "Everything that we should do so it was a lot of fun" (Jean, January, 2012).

29. "it was also really fun to do like different animations like with the titles and learn whatever you had to do" (Jean, January, 2012).

30. "It was a lot of fun to uh.. like to go beyond what you're used to" (Jean, January, 2012).

31. "We had to always think about well should we have it here instead of there or whatever" (Jean, January, 2012).

32. "You had to always be thinking of "should we have it uh... wide or close?" (Jean, January, 2012).

33. "it was kind of hard to think of something to do for it so it got us thinking really hard about that" (Jean, January, 2012).

34. "[Enjoyed final project} really liked having it" (Jean, January, 2012).

35. "It was good" (Jean, January, 2012).

36. "Everybody worked well in here" (Jean, January, 2012).

37. "[Enjoyed...] I liked how you got us to write scripts, cause that got us to like relate not just to the filming side of the movies but kind of the directing side too" (Tamara, January, 2012).

38. "You gave us lots of space to do what we wanted to [during the final project] (Tamara, January, 2012).

39. "[Enjoyment affected by...] just the stuff we're doing in general. So like, if it's like Social, I won't enjoy it. But if it's like Math, or even this, like... like New Media, then I'll enjoy it" (Tamara, January, 2012).

40. "[Enjoyed] I'm good with computers so I enjoyed that" (Tamara, January, 2012).

41. "[Enjoyment affected by...] it's just got to be fun, I guess" (Tamara, January, 2012).

42. "Fun to be in here" (Tamara, January, 2012).

43. "Things were fun and uh... nope, I think you did a good job" (Tamara, January, 2012).

44. "2 [Enjoyed] Like, in the end result, may not enjoy doing it while you're doing it... but like the end you're like 'this is really cool, kind of thing'" (Tamara, January, 2012).

45. "[Attention kept by...] I love music, and so I always watch videos and youtube with the lyrics and stuff, so I thought it'd be cool to make one of my own" (Tamara, January, 2012).

46. "[Teaching Learning approaches...] Um... just be able to talk to other people" (Tamara, January, 2012).

47. "You get to say what you think and stuff like that" (Tamara, January, 2012).

48. "[Enjoyed doing...] I liked doing the stickers 'cause I know a lot of people who needed stickers and I like doing them and they're easy for me" (Allen, January, 2012).

49. "Just going to a fun class like this one" (Allen, January, 2012).

50. "[Excited by..] we made a lot of ghost jokes and stuff. It was really fun" (Allen, January, 2012).

51. "[Enjoyment affected by...] Whatever you find is fun. Whatever you like doing. If you're going to do that in a class, then you're going to like the class" (Allen, January, 2012).

52. "I'm like humorous. I like to laugh. I like to make people laugh so if that... if that video makes me laugh or makes other people laugh, then I'm happy" (Allen, January, 2012).

53. "[Enjoyed...] The subject that we did it about" (Allen, January, 2012).

54. "It's more based on personal preference on what you like doing. Like if you're coming into a class liking art, then you might like the art stuff like those girls were" (Allen, January, 2012).

55. "[Enjoyment affected by...] Uh just the things that you do in a class. For example math, like if there's a section in math that you like doing then you might like math but then if it's one out of nine subjects you like then you might not enjoy it" (Allen, January, 2012).

56. "[During the final project...] so we got time to expand and put details in that we couldn't put in in the first one" (Allen, January, 2012).

57. "[Excited] If I know the assignment, what the assignment is from the previous day. So what we're doing the next day" (Allen, January, 2012).

58. "[Enjoyed the approach] people have more time to think about what they're going to do" (John, January, 2012).

59. "[Subject matter affects enjoyment...] when someone, like likes Science or something, and then they're in a Science class, just stuff I don't know. Cause someone might like doing some of the stuff in the class" (John, January, 2012).

60. "[Excited by...] Sometimes the stuff we do inside it" (John, January, 2012).

61. "[Stayed focused by...] I was just enjoying the stuff I do so..." (John, January, 2012).

62. "[Focused on...] the animation parts and trying to match the picture with like the words and the description" (John, January, 2012).

63. "{Engaged means…] kind of hooked on it" (John, January, 2012).

64. "I like being engaged in doing the voiceovers" (Mike, January, 2012).

65. "[learning how to] doing the voiceovers and everything" (Mike, January, 2012).

66. "It's fun, it's fun" (Mike, January, 2012).

67. "Basically if it's fun [course], I like it" (Mike, January, 2012).

68. "Most exciting was well, like I said, watching Delbert dance and cutting it in" (Mike, January, 2012).

69. "[Choosing Final Project] It was a little bit better... lot easier though [the second year] (Mike, January, 2012).

70. "[Enjoyed] Basically putting it all together on the computer" (Mike, January, 2012).

71. "[Most fun] Editing pictures were fun" (Hank, January, 2012).

72. "[Subject matter affects enjoyment] Sometime, like math, that's my good part of it. If I take LA... I really don't like writing. It's like math comes to me but LA really... yeah. Like LA is good but just the essays. Just the format" (Hank, January, 2012).

73. "[Most excited by] you get to take characters and put them on a place... in a place where they cannot exist" (Hank, January, 2012).

74. "[Exciting to] take characters out of that and put them in" (Hank, January, 2012).

75. "[Anything you disliked...] Nah... I don't think there were any... they were all good" (Hank, January, 2012).

76. "[Enjoyed final project] That was great. Cause we already learned everything and now we get to... we get to put everything together and make a big project" (Hank, January, 2012).

77. "The project that took several days were probably fun. Yeah, that's why. That's why you just stay focused" (Hank, January, 2012).

78. "I got to learn a lot about new programs and uh... how you can use them" (Hank, January, 2012).

79. "[Excited...] To learn something new" (Hank, January, 2012).

80. "You're into something and using up your time" (Hank, January, 2012).

Appendix Q: Typical Representative Group Raw Score

	Britney	Jean	Tamara	Candice	John	Allen	Mike	Hank	
1	03AP	11AP	27AG	23AG	13BG	24BP	07BG	16BP	
2	1	1	1	1	1	1	1	1	
3	1	1		1	1			1	
4	1	1	1	1				1	
5	1	1	1	1	1	1	1	1	
6	1	1	1	1	1		1	1	
7	1	1			1	1		1	
8	1	1	1	1			1	1	
9	1	1	1	1	1		1	1	
10	1	1		1		1		1	
11	1	1	1	1	1	1	1	1	
12	1	1		1		1		1	
13	1	1		1	1		1	1	
14		1	1	1		1		1	
15	1	1		1	1	1		1	
16	1	1	1	1	1	1		1	
17	1	1	1	1	1	1		1	
18	1	1	1	1	1	1	1	1	
19	1	1	1	1	1	1	1	1	
20	1	1	1	1	1	1	1	1	
21	1	1	1	1			1	1	
22	1	1	1	1	1		1	1	
23	1	1	1	1	1	1	1		
24	1	1	1	1	1	1	1	1	
25	1	1	1	1	1	1	1	1	
26	1	1	1	1		1	1	1	
27	1	1	1	1	1	1		1	
28	1	1	1	1	1			1	
29	1	1	1	1	1	1	1		
30	1	1		1	1	1		1	
31			1	1			1		
32		1		1	1			1	
33	1	1	1	1			1	1	
34	1	1	1	1	1	1	1		
35	1	1	1	1	1	1	1		
36									
37	1	1	1	1	1	1		1	
38	1	1	1	1	1			1	
39	1	1	1	1	1		1	1	
40	1	1	1	1	1	1	1	1	
41	1	1	1	1	1	1	1	1	
42	1	1	1	1	1	1	1	1	
43	1	1	1	1	1	1	1	1	
44	1	1	1	1	1	1	1	1	
45	1	1	1	1	1	1	1	1	
46	1	1	1	1	1	1	1	1	
47	1	1	1	1	1	1	1	1	
48	1	1						1	
49					1				
50	1	1			1	1	1	1	
51			1	1	1		1	1	
52	44	46	38	45	39	32	32	43	Total Score

Appendix R: Rubric for Critical Engagement with the Media

Name: _____   Module: _____

New Media (CTS) ASSESSMENT AND EVALUATION

Part A: Portfolio Completion Checklist (Complete / Incomplete) 30%

Module Assignments	Project 1:	Project 2:	Project 3:	Project 4:	Project 5:	Project 6:	Project 7:	Project 8:	Project 9:	Project 10:	Project 11:	Project 12:	Project 13:	Project 14:	Project 15:	Project 16:	Project 17:	Project 18:

Number of Assigned Projects:	
Total of Completed Projects:	
Percentage Complete:	

Part B: Major Project Design Quality (Rubric) 30%

4	Exceeds all defined outcomes. Creates an exceptional, high quality product. The students has an advanced understanding of tools, software. Materials and/or processes are selected and used efficiently, effectively and with confidence. Quality, particularly details and finishes, and productivity all exceed standards. The completed project is excellent quality.
3	Meets but rarely exceeds the defined outcomes. Creates a solid, good-quality product. The students has a good understanding of basic tools, software but a limited understanding of advanced tools, software. Materials and/or processes are selected and used efficiently and effectively. Quality and productivity are consistent and dependable. The completed project is good quality.
2	Meets most the defined outcomes. Creates a simple, generally acceptable product. The students has a basic understanding of basic tools, software. Materials and/or processes are selected and used appropriately. Quality and productivity is notdependable. The project is partially completed.
1	Meets some of the defined outcomes. Creates a portion of the required project; the product is of poor quality and/or incomplete. The students has a limited understanding of basic tools, software. Materials and/or processes are NOT used inconsistently. Quality and productivity are notdependable. The project is not complete.
INS	Not enough information has been provided to assess project quality

1

Part C: Critical Engagement with the Media (Rubric) 30%

4	Demonstrates through discussion a critical awareness of the ethics and moral questions posed by media. Willingly leads and enthusiastically participates in large and small group discussions and critiques. Analyzes, synthesizes and effectively problem solves to find creative solutions while working with various media. Makes effective decisions on tools and design approaches based on their critical analysis and critique. Actively uses self-reflection and critique as a tool for self-improvement. Makes successful project revisions based on analysis and critique. Uses a variety of approaches in order to try new and innovative ways of completing assigned projects. Strives for personal best. Leads and mentors others to contribute team goals.
3	Demonstrates through discussion a general awareness of the ethics and moral questions posed by media. Willingly participates in large and small group discussions and critiques. Analyzes and problem solves to find effective solutions while working with various media. Makes decisions on tools and design approaches based on analysis and critique. Uses self-reflection and critique as a tool for self-improvement. Makes project revisions based on analysis and critique. Follows the standard approach to completing assigned projects. Tries new ways of completing assigned projects if prompted. Strives for a good product. Works cooperatively and contributes ideas and suggestions that enhance team effort.
2	Demonstrates through discussion a basic awareness of media in society. Participates in discussions and critiques when prompted. Attempts to find solutions while working with various media. Has difficulty generating ideas during self-reflection and critique. Makes decisions on tools based on outside suggestions. Is generally happy with the first results and does not initiate revision unless prompted to do so. Follows a guided plan of action if presented with one. Works toward completion. Works cooperatively to achieve team goals.
1	Seems unaware or indifferent to the importance of media in society. Only participates in discussions and critiques if insisted upon by the teacher. Does not attempt to find solutions to problems. Makes offhand decisions on tool, without analysis or understanding why, or uses tools incorrectly or inappropriately. Does not share ideas during self-reflection and critique. Does notrevise work or respond to suggestions. Has no clear approach to undertaking the work. Does not finish assignments. Does not follow a guided plan of action.Does not complete project. Does not assist in the success of team goals.
INS	Did not demonstrate any awareness of media. Has not worked in a group. Cannot be evaluated at this time.

Part D: Performance Assessment (Rubric) 10%

4	Attempts the project independently BEFORE asking for assistance / guidance. Demonstrates a willingness to assist classmates with their own projects. Is always in class on time. Has no inexcused lates. Is always in class, orhas no inexcused absences. Plans, initiates problem solving and works in an exemplary and self-directed manner.
3	Attempts the project independently after asking for assistance / guidance. Assists classmates if prompted. Is generally in class on time. Has no more than three lates over the term. Has two or fewer inexcused absences. Plans, problem solves and works in a self-directed manner.
2	Attempts the project only when assistance / guidance is provided. Works alone on his/her projects, but does not assist others. Sometimes in class on time. Has between four and ten lates over the term. Has three or more inexcused absences. Plans and solves problems with limited assistance.
1	Attempts the project ONLY AT THE INSISTENCE of the teacher or assistant. Does not work effectively, or complete the projects. Is rarely in class on time. Has eleven or more lates over the term. Works in a group if prompted. Does not plan or problem solve.
INS	Did not attend enough classes to be observed enough to assess. Does not attempt the projects. Cannot be evaluated at this time. Has been removed from the course.

<u>Appendix S</u>: Sample Projects

Final Film Project

For the last few weeks, we've been discussing and viewing a number of different films. You have had the chance to try some of these in your group projects (ex: your kinetic type, direct-edited film, and paranormal footage). Others we've viewed and discussed. And in the last few days, your group discussions have generated even MORE ideas. Today, you will begin your final project for the Unit. This project will take you to the end of the Unit, and will make up 30% of your mark. (Please see your Project rubric for marking details.)

You may choose any type of final project you'd like. Whatever you choose to work on, however, it should excite and challenge you, so that you put in the best effort you can. The project must be self-generated project, and must demonstrate your mastery of the learner objectives for the course (see your course outline), but beyond that, the details are up to you. As always, feel free to discuss this with me at any time. Remember, this is YOUR project. You need to be the one in the driver's seat.

Here are some of the film choices: (though you may develop something else)

Choice 1: Music Video

Create a music video for an existing piece of music. In this, you could either use images and transitions, in time to the music, or you could actually film your friends doing a lip-dub of the song.

Things to consider:

- Using the wavform to time your images
- Filming / creating images for your project
- Adding transitions to blend between images
- Adding special effects / colourizing areas
- Creating a polished finished project

I Got a Feeling, created by students at the Université du Québec à Montréal
https://www.youtube.com/watch?v=-zcOFN_VBVo

Choice 2: Parody Trailer

Create a parody for an existing film / television show. By adapting the diagetic sound, non-diagetic sound, and voice over, you can alter the emotional impact of the video.

Things to consider:

- Developing the "new story" for the project
- Selecting appropriate music / sound effects
- Adding transitions to blend between pieces of film
- Adding special effects / lighting effects to enhance your project
- Creating a polished finished project

Scary Mary, created by moviemker
https://www.youtube.com/watch?v=2T5_0AGdFic

2

Choice 3: Kinetic Type

Create a section of kinetic type for a song or selection from a movie / interview / television program. *Note: I am less concerned by length, and more concerned with detail.* By using images and text, retell the selection of audio, adapting it as needed.

Things to consider:

- Text and images should appear along with the audio
- Use your wavform for timing these
- Both transitions and keyframing can be used to create effects
- After Effects may be needed for more advanced effects
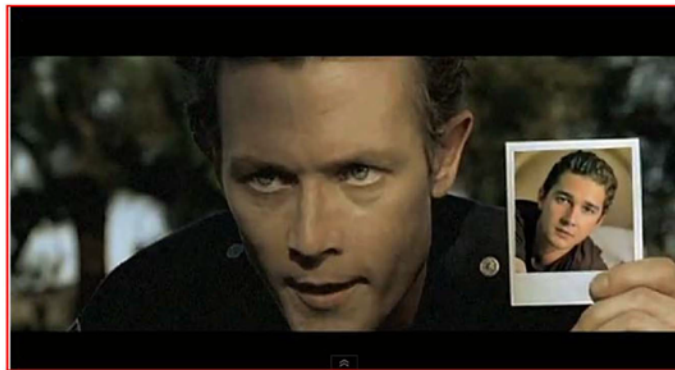- Creating a polished finished project

School of Rock, created by Beneanas
https://www.youtube.com/watch?v=ZxTgGR6_1ps

Choice 4: Mashup Trailer

In this project, you may mix together two source materials. This could be music or film, but however you put them together, you need to make them into one, connected whole. Consider what audience you are appealing to, and how the music and sound effects will bring those two sources together.

Things to consider:

- How will you blend the two forms (special effects? Music? Lighting?)
- Use your transitions and special effects as needed
- After Effects may be needed for more advanced effects (like tracking)
- Creating a polished finished project

Transforminators, created by IGNentertainment on May 22, 2009
https://www.youtube.com/watch?v=hcaNZ4iHSMw

3

Choice 5: Original Film

In this project, you will be creating your own film. This could be based on your long script, developed in the Pre-production module, or from another source. Most importantly, it should be acted in by you, or by a cast of your choosing. All editing must be done by you.

Things to consider:

- How will you coordinate the filming of this project?
- Use your transitions and special effects as needed
- Including details like non-diagetic sound and sound effects will improve your final project
- Creating a polished finished project

You Don't Make Magic, by FireBeasty
https://www.youtube.com/watch?v=miwN8KdMYXU

Choice 6: Green-screened Scene

In this project, you will be cutting yourself into a scene from an existing film or television show. *Note: As with Kinetic Type, I am less concerned by length, and more concerned with detail.* This recut will involve you masking out the existing pieces of your footage, and putting yourself (or someone else you've cast) into the role.

Things to consider:

- Creating After Effects for advanced masking effects
- Using special effects to hide that you've blended two sources
- Including details like special effects and soundrack music
- Creating a polished finished project

MTV Music Awards, 2005
https://www.youtube.com/watch?v=AjtXdvGPjl8

4

Choice 7: Reworked Commercial

In this project, you will recreate and rework an existing television commerical. This recut will involve you recreating the style and genre of the television commercial you've selected, along with the effects, titles, non-diagetic sound, and stylistic choices. The commercial you have created should be a clear match to an existing commercial, but should be created from footage you have created.

Things to consider:

- Developing the "new commercial theme" for the project
- Selecting appropriate music / sound effects
- Adding transitions to blend between pieces of film
- Adding special effects / lighting effects to enhance your project
- Creating a polished finished project

Slob Evolution, 2008, by emmys   https://www.youtube.com/watch?v=lV8JardV74w

Choice 8: Documentary Film

In this project, you will be creating a documentary. This could be based on another course you are taking (ex: Social Studies or English). It should include all the features of the documentary genre, but most importantly, it should be created and edited completely by you. Images must be correctly sourced (see the "Question of Copyright" poster for directions.)

Things to consider:

- How will you coordinate audio / voiceover / imagery?
- Use your transitions and special effects as needed
- Including details like non-diagetic sound and sound effects will improve your final project
- Creating a polished finished project

The Story of Keep Calm and Carry On, 2012, by BarterBooksLtd
https://www.youtube.com/watch?v=FrHkKXFRbCI

5

Choice 9: Stop Motion Animation

In this project, you will be creating your own film using the process of stop motion animation. This can be filmed with actors, or with props, but it must include at least one example of stop-motion. Consider your effects and editing as part of the overall filmmaking process.

Things to consider:

- How does the stop-motion approach affect your film?
- Use your transitions and special effects as needed
- Including details like non-diagetic sound and sound effects will improve your final project
- Creating a polished finished project

Marcel the Shell with Shoes On, 2010 by MARCELTHESHELL
https://www.youtube.com/watch?v=VF9-sEbqDvU

Choice 10: Television / News Program

In this project, you will be create a self-generated television or new program. This can be based on your long script if you wish. It should be acted in by you, or by a cast of your choosing. All editing must be done by you. You should consciously try to recreate the genre of program you are creating. Consider the diagetic and non-diagetic components along with the editing elements of this.

Things to consider:

- How will you coordinate the filming of this project?
- Use your transitions and special effects as needed
- Including details like non-diagetic sound and sound effects will improve your final project
- Creating a polished finished project

Wildwood School News, 2011 by smarttvstars
https://www.youtube.com/watch?v=fxIYqRKS3yA

Note: These projects directions, with links to exemplars provided by other individuals, are samples rather than the particular projects completed by the students involved the study. They have been cited here in order to provide exemplars of the types of video projects created during this New Media class while still preserving the anonymity of the students involved.

<u>Appendix T</u>: Permission Letters for Research

HOLY SPIRIT
CATHOLIC SCHOOLS

All God's Children

Excellence in Learning

Sacramentality

Our Collaborative Community

Ministry

Stewardship

December 15, 2011

Wayne Street, Academic Assistant
Graduate Studies and Research, Faculty of Education
University of Lethbridge
4401 University Drive
Lethbridge, AB   T1K 3M4

Fax: 403-329-2372

Dear Mr. Street,

Thank you for the opportunity to review Ms. Karin Goble's research proposal entitled, *"Twenty-first Century Learning, Technology, and the Impact on Student Engagement."* Please accept this letter as notice of my permission to proceed with these studies.

I wish Ms. Goble the best of luck with her work, and look forward to hearing more about the study's findings.

Sincerely,

Christopher Smeaton,
Superintendent of Schools

Holy Spirit Catholic Schools
Christ-centered learning
communities where students are cherished and achieve their potential.
St. Basil Education Centre
620 12 Street "B" North • Lethbridge, Alberta T1H 2L7 • Phone: (403) 327-9555 • Fax: (403) 327-9595

The University of Lethbridge

MEMORANDUM

TO: Karin Goble
FROM: Kerry Bernes
Date: December 15, 2011

RE: Human Subject Research Application:
"Twenty-first Century Learning, Technology, and the Impact on Student Engagement"

The Faculty of Education Human Subject Committee has **approved** your HSR application with the following change.

The consent forms for the students and parents should be separate.

The approval adheres to the Tri-Council Policy Statement, published on the website
http://www.pre.ethics.gc.ca/eng/policy-politique/initiatives/tcps2-eptc2/Default/

Good luck with your research.

Kerry Bernes, Ph.D.
Chair Human Subject Committee
Faculty of Education

Cc: Graduate Studies
         Carmen Mombourquette, Supervisor
         Wayne Street

University of Lethbridge

Faculty of Education

APPROVAL OF THESIS PROPOSAL
Master of Education Program
University of Lethbridge

This form is used to officially approve a M.Ed. student's thesis proposal.

☑ Approval of Thesis Supervisor form has been submitted and the supervisor has been officially designated by the Assistant Dean of Graduate Studies and Research in Education.

☑ Thesis Committee members have been approved by the Assistant Dean of Graduate Studies and Research in Education.

☑ Thesis Colloquium has been held.

This is to confirm that the attached thesis proposal of _Karin Goble_

entitled: _21ˢᵗ CENTURY LEARNING, TECHNOLOGY, AND THE_

IMPACT ON STUDENT ENGAGEMENT

has been approved by the Thesis Supervisory Committee.

Comments: _All suggested revisions have been made_
and approved.

Approval:

RICHARD BUTT		_Dec 20ᵗʰ 2011_
Supervisor (Required) (Please print name)	Signature	Date
CARMEN MOM BOURQUETTE co-SUPERVISOR		_Dec 20ᵗʰ 2011_
Committee Member (Required) (Please print name)	Signature	Date
MARLO STEED		_Dec 20ᵗʰ 2011_
Committee Member (Required) (Please print name)	Signature	Date
Committee Member (Optional) (Please print name)	Signature	Date
Kerry Bernes		_Jan 24/12_
Assistant Dean of Graduate Studies and Research in Education (Please print name)	Signature	Date

Copy to Student ☑

Appendix U: Permission Form A

University of
Lethbridge

Faculty of Education

Appendix A
PARTICIPANT (CHILD) CONSENT FORM #1
Student Engagement Questionnaire

Twenty-first Century Learning, Technology, and the Impact on Student Engagement

Your child is being invited to participate in a study entitled **Twenty-first Century Learning, Technology, and the Impact on Student Engagement** that is being conducted by Karin Goble, B.A., B.Ed. Ms. Goble is a graduate student in the Faculty of Education at the University of Lethbridge and you may contact her at any time if you have further questions by phone at (403) 327 4596 or by email at goblka@uleth.ca.

As a graduate student, Ms. Goble is required to conduct research as part of the requirements for a degree in Education. It is being conducted under the supervision of Dr. C. Mombourquette. You may contact the supervisor of this study by phone at (403) 329 2018 or by email at carmen.mombourquette@uleth.ca.

The purpose of this study is to investigate the relationship between twenty-first century learning (in the New Media Classroom) and students' perceptions of their own engagement. To measure this, this study proposes to use two different approaches: First, a Student Engagement Questionnaire where students will answer questions about their perception of the New Media classroom. Secondly, an individual interview regarding their self-perceived levels of engagement.

This study would provide important information on how students perceive their own learning. Your child is being asked to participate in this study because the student-centered approach to video creation unit is unique to the teaching of New Media. As such, I'm interested in researching the student perceptions of this twenty-first century instructional approach.

If you agree to permit your child to participate in this research, his/her participation will include an online questionnaire. Participants may be inconvenienced by the time required to complete the research project. The estimated time will be 15 minutes. This inconvenience is mitigated by the participants' option to exit from the survey without prejudice at any time.

The potential risks to your child by participating in this research is the potential for anxiety when completing the questionnaire. To prevent or to deal with these risks, students may opt out of participating at any time. The students who decline to participate will <u>not</u> be identified to the classroom teacher.

The potential benefits of your child's participation in this research is an expansion of the state of knowledge regarding student perceptions of engagement and twenty-first century learning in the New Media classroom.

Your child's participation in this research must be completely voluntary. If you do decide to allow your child to participate, you may withdraw your permission (and your child from the study) at any time without any consequences or any explanation. If your child does withdraw from the study, he / she would opt out of completing the questionnaire.

The researcher may have a relationship to potential participants as their teacher. To help prevent this relationship from influencing your decision to grant permission, the following steps to prevent coercion have been taken:

The school counselor will be presenting the study and supervising the Student Engagement Questionnaire. The teacher / researcher will not be in the room, and will not be aware of which students opted out of participating. Student results will only be identified by number until after the course is complete.

In terms of protecting your child's anonymity, students will complete the questionnaire without use of name or student ID number. The responses will be numbered (for use of tracking data) but this information will not be shared with the researcher / teacher until after the course is over. Neither the students nor the identity of the school in the finished study will be identified in the finished study.

Your child's confidentiality and the confidentiality of the data will be protected by having the questionnaire completed on a secure site online. The data collected will be submitted electronically to the researcher. This information will be used for the purposes of the study and then will be destroyed within one year of the study being completed. There will be no way for this information to be accessed by anyone in the public sector.

It is anticipated that the results of this study will be shared with others in the following ways: a written thesis paper, published articles and / or presentations at a later date.

In addition to being able to contact the researcher [and, if applicable, the supervisor] at the above phone numbers, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Chair of the Faculty of Education Human Subjects Research Committee at the University of Lethbridge (403-329-2425).

Your signature below indicates that you understand the above conditions of participation in this study, that you have had the opportunity to have your questions answered by the researchers, and that you consent to having your child participate in the study.

Name of Student	*Signature*	*Date*

Name of Parent or Guardian	*Signature*	*Date*

A copy of this consent will be left with you, and a copy will be taken by the researcher.

Appendix V: Permission Form B

University of
Lethbridge

Faculty of Education

Appendix B
PARTICIPANT (CHILD) CONSENT FORM #2
Individual Engagement Interviews

Twenty-first Century Learning, Technology, and the Impact on Student Engagement

Your child is being invited to participate in a study entitled **Twenty-first Century Learning, Technology, and the Impact on Student Engagement** that is being conducted by Karin Goble, B.A., B.Ed. Ms. Goble is a graduate student in the Faculty of Education at the University of Lethbridge and you may contact her at any time if you have further questions by phone at (403) 327 4596 or by email at goblka@uleth.ca.

As a graduate student, Ms. Goble is required to conduct research as part of the requirements for a degree in Education. It is being conducted under the supervision of Dr. C. Mombourquette. You may contact the supervisor of this study by phone at (403) 329 2018 or by email at carmen.mombourquette@uleth.ca.

The purpose of this study is to investigate the relationship between twenty-first century learning (in the New Media Classroom) and students' perceptions of their own engagement. To measure this, this study proposes to use two different approaches: First, a Student Engagement Questionnaire where students will answer questions about their perception of the New Media classroom. Secondly, an individual interview regarding their self-perceived levels of engagement.

This study would provide important information on how students perceive their own learning. Your child is being asked to participate in this study because the student-centered approach to video creation unit is unique to the teaching of New Media. As such, I'm interested in researching the student perceptions of this twenty-first century instructional approach.

If you agree to permit your child to participate in this research, his/her participation will include an individual interview. Participants may be inconvenienced by the time required to complete the research project. The estimated time will be 45 minutes. This inconvenience is mitigated by the participants' option to exit from the interview without prejudice at any time.

The potential risks to your child by participating in this research is the potential for anxiety during the interview process. To prevent or to deal with these risks, students may opt out of participating at any time. The students who decline to participate before the interview will <u>not</u> be identified to the classroom teacher.

The potential benefits of your child's participation in this research is an expansion of the state of knowledge regarding student perceptions of engagement and twenty-first century learning in the New Media classroom.

Your child's participation in this research must be completely voluntary. If you do decide to allow your child to participate, you may withdraw your permission (and your child from the study) at any time without any consequences or any explanation. If your child does withdraw from the study, he / she would opt out of the interview.

The researcher may have a relationship to potential participants as their teacher. To help prevent this relationship from influencing your decision to grant permission, the following steps to prevent coercion have been taken:

The school counselor will be presenting the study and inviting students to be part of the subsequent interviews which will take place after the course is complete. The teacher / researcher will not be in the room when the study

is presented, and will not be aware of which students opted out of participating. Student participants for the interviews will only be identified by number until after the course is complete.

In terms of protecting your child's anonymity, the researcher will record the student responses without use of name or student ID number. The responses will be transcribed and numbered (for use of tracking data) but this information will not be shared. Neither the students nor the identity of the school in the finished study will be identified in the finished study.

Your child's confidentiality and the confidentiality of the data will be protected by keeping the transcripts on a secure drive of the researcher's personal computer. This data collected will be used for the purposes of the study and then will be destroyed within one year of the study being completed. There will be no way for this information to be accessed by anyone in the public sector.

It is anticipated that the results of this study will be shared with others in the following ways: a written thesis paper, published articles and / or presentations at a later date.

In addition to being able to contact the researcher [and, if applicable, the supervisor] at the above phone numbers, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Chair of the Faculty of Education Human Subjects Research Committee at the University of Lethbridge (403-329-2425).

Your signature below indicates that you understand the above conditions of participation in this study, that you have had the opportunity to have your questions answered by the researchers, and that you consent to having your child participate in the study.

Name of Student	_Signature_	_Date_

Name of Parent or Guardian	_Signature_	_Date_

A copy of this consent will be left with you, and a copy will be taken by the researcher.