How to Create Engagement in the Online Classroom

by

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A Paper

Presented to the Gordon Albright School of Education

In Partial Fulfillment of the Requirements

For the Degree of Master of Education

EEA650 Project

July, 2015

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Dedication or Acknowledgement Page

Without the positive example of my parents I would not be able to complete this degree. Their hard work and persistence in providing for their family has been an inspiration. I appreciate their support, encouragement, and humour throughout this process. I must also knowledge Liza Whiteside, who showed me what it was to be a leader, long before I knew I was going to be one. My cohort members and professors have been a pillar of support throughout this process, and have made this two-year journey worthwhile.

Abstract

Considering the low completion rates at Fraser Valley Distance Education School, which are as low as 40 percent in secondary courses, there needs to be an attempt to engage students in order to promote their understanding of material and motivate them to complete courses. This is done through considering what students need to be engaged, and how to promote this engagement online. Making sure that students understand what a school's online program consists of is important, as transparency of information is essential with all the confusing and conflicting terms in Distributed Learning. The term online education promotes the idea that students will receive a lesser education than those in the face-to-face program, meaning they will complete more work but understand less information because they are not in a group setting. There needs to be a balance between using online programs that are free and already in place (Twitter, Wikis, Blogs), and using a school wide Learning Management systems (LMS) that students do not have experience with. Those students who were asked to use online programs in which they were not familiar reported that taking the time to understand the process took time away from their learning, and thus hindered their engagement. Students require clear and detailed feedback in a timely manner, combined with personal communication with their teacher. Students must get individual attention in the form of phone calls, emails, and one on one virtual lessons if engagement is going to be promoted. Those students who were surveyed after getting this individualized attention said they felt the teacher cared for them, and they wanted to work for someone who took this time to show student success was of importance. This paper examines the need for a student centred approach to online education, combined with the ease of access required in online communication systems.

Keywords: Engagement, Learning Management System, Communication, Online Education,

Caring

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Chapter 1

The Problem

Introduction

Online education in British Columbia has seen a dramatic shift in the number of Distributed Learning schools and courses that are available. Previous to the last ten years, there was a consortium of 9 Distributed Learning schools in all of British Columbia, but since this time the number has ballooned to over double that number. With the advances in technology and government regulations, there are more opportunities now for students to take online classes than ever before, but the question must be raised, is this a positive step for students? At Fraser Valley Distance Education School (FVDES) located in Chilliwack, British Columbia, the completion rate for students taking the English 12 Online course were 40% in the 2013/14 school year (SD 33, 2014). With more online courses available to students, it must be determined how to engage kids in the online classroom, in order to ensure their success and completion of a course. In this chapter the historical reasons for this move toward distributed learning will be considered, a review of the problem will be conducted, and the main research questions identified. Finally a definition of terms will be listed in order to clarify the different and often conflicting language of online education.

Background to the Problem

Distance education has evolved from a correspondence model to one that is almost entirely online. At FVDES, prior to the year 1996, all work was completed on paper and sent back to the teacher, with the majority of students taking correspondence courses because they lived in rural

areas (Brown, 2015). By the year 1998 these courses were well on their way to being converted into an online model where assignments and teacher feedback could be more readily accessible. This push toward incorporating more online courses was in response to a school in the Nechako School District called E-Bus, which was offering online course and saw their enrolment increase (Brown, 2015). In order to manage the online system, a program needed to be used in order to grade assignments, provide feedback, and house web pages. Several options such as Blackboard Collaborate, and Moodle were chosen to provide this service, and allow for quick and efficient submission of assignments, and return marked work. Since the year 2000 there has been an explosion of Distributed Learning Schools (DL) in the province. Where there was once only 9 Distributed Learning Schools in the district, there are now over 20 who are competing for students in order to fund their programs. DL schools in British Columbia are funded less per student than in a traditional school, as there are not the same costs associated with operating a school when students don't physically attend (SD 33, 2014). With this expansion of DL schools, and reduced funding there is strong competition between DL schools to get as many students as possible to take their courses. They are not limited only to the students within their district, as any student in British Columbia can attend any one of the DL schools. They can even attend more than one DL school as long as they are not taking the same course.

With this new landscape of options for students, there have been instances where students will enrol in several DL schools for one course, and hope to find the best option for them. For example a student may enrol in English 12 in three different schools, looking at the courses and deciding if this is something they want to take, and compare it to the others they are enrolled in (SD 33, 2014). This puts the power in the hands of the student who wants to find the option that best suits their needs. This becomes a problem when a school is funded for these students taking

their course, and they end up dropping the courses they do not want to take. Essentially they are being funded not to take a class, and it is a waste of money. In order to help students make better decisions, some schools have decided to put their course outlines on their websites for students to preview, while others allow opportunities for students to speak to the teachers about the courses before they enrol. However, even once a student has made the choice to take park in an online course, after serious consideration of the options, there is no guarantee that they will actually complete it.

Statement of the Problem:

Many students are not completing their online courses, and at FVDES there is a completion rate at the high school level of fewer than 40%. Biology 12 and English 12 have the lowest completion rates, with Planning 10 having completion numbers in the 90% range (SD 33, 2014). There are varying factors for these differing completion rates that may include factors around a student's home life, is this student taking all their courses at one online school or is the program split with a traditional school, and have they taken online classes before? Regardless of these external factors, there have to be some internal reasons as to why some courses have better completion rates than others. If students are going to want to complete a course they must be engaged throughout the course. The focus of this paper will be to determine how to create engagement in the online classroom.

Purpose of the Study

It is through this study that ideas will be developed around how this engagement is created, sustained, and implemented in the online classroom. Student reasoning for taking an online class

often has not been focused around valuable content or life skills, but instead it is viewed as a quick and easy way to complete a course, despite the low completion rates. However once a student is enrolled, the aim is to get students engaged and keep them engaged until completion..

Finding and evaluating these different engagement methods will help to improve completion rates in the online classroom, ensuring that students are getting the most out of their education, and coming away with the knowledge and skills needed to be successful in their life outside of school. In order to determine which engagement methods are going to be most useful, studies will be looked at from around the world and at varying educational levels. Colleges and universities are embarking on more online courses, and in some school districts in the United States it is mandatory that students take part in an online course, because they will need these skills at the university level. If students are then able to complete an online course, it is possible that this information is shared with others, and these courses gain a positive reputation for being ones that students want to complete. The overall purpose of this study is to examine the different methods available in creating engagement in the online classroom.

Importance of the Study

This study is of importance to the DL school because it will improve completion rates; bring more students into the school, increase funding, and make sure that students are getting the most out of their courses. Students who are not engaged do not want to participate in the classroom. When reflecting on past high school experiences, it is not always the course itself that was motivation to complete, but what the teacher brought to the table. Learning about the teacher's point of view, their past experiences, or getting advice for the future is what made the course interesting, and a place the students wanted to be. It is this personal connection that made

school interesting, and is lacking in the DL world. The information obtained in the literature review will show how this connection can and should be created, building the relationship between student and teacher to encourage completion of a course. This study is important because out of this literature review there will be tangible examples and processes that can be put into place at FVDES, or any DL school that will positively influence students. This will not only motivate students to complete the course, but teachers to implement these techniques because it is also motivating for them. Finding the passion in both teacher and student is why it is important to find out how to create engagement in the online classroom.

Scope of the Study

This study will look at a variety of practices that create engagement from around the world, implementing varying types of technology, with different rules for DL school funding, and at all different levels of education. Not everything in this study will be applicable to FVDES, or other DL high schools. Much of the research presented is from the college or university level, where students are held to a different standard both academically and personally, with different rules around privacy. There is no consideration as to the difference between male and female performance in a DL school, and how this might be a factor in completion rates. There were very few studies that looked directly at Canadian high schools specifically. This is very much a broad look at different possibilities for engagement, and not a targeted approach at a specific group. The research was not this focused but at the same time if it was, there would be no need for this study as we would already have the answers, and completion rates would be much higher than they are.

Summary

With the changing landscape of Distributed Learning, the need for funding, and students having so much choice, focus must be turned to creating a quality education for students where they need to be engaged in their education. Currently at FVDES the completion rates for secondary courses fluctuates in the low 40% range, showing that for every 100 students that join the course, 60 will be withdrawn; meaning, they do not complete enough work in the course to obtain a fail, so they are simply removed with the option to sign up for the course again at a later date. With more universities moving toward online classes it is imperative that students gain an understanding of how to navigate an online course, but more importantly it must be considered why are students failing to complete these courses? Beyond issues around funding and choice, there need to be an examination of why students are struggling to finish their online classes, and what can be done to ensure they are engaged in the material.

Outline of the Remainder of the Paper

The following chapters will include an extensive literature review examining the different methods of creating engagement in the online classroom. Looking at the conceptual theories around engagement, and paralleling that with what occurs in the traditional classroom will help build an understanding of what needs to be achieved in the online classroom. In reviewing studies from the high school, college, and university levels, in both Canada and in the United States, a wide range of opinions, theories, and practices will be considered. Looking at different online systems that will allow for efficient communication with students and boost engagement will be an essential part of this review, as well as gaining a better understanding of what student

behaviour online says about their level of engagement. A list of terms will be given in order to provide clarity around the different and often conflicting language in online education, as well as defining what engagement really means. After the literature review a series of recommendations will be made as to how to implement the most useful strategies into the practices of FVDES, to ensure that students are going to be engaged in their courses. Ruling out those ideas that will not work and explaining why will be a central goal for this chapter. Overall the ways to create engagement in the online classroom and how to effectively implement them will be the central focus for the rest of this paper.

Chapter 2

Review of Literature

Introduction

Within the global concept of Distributed Learning, there are a plethora of terms and programs that are all similar in nature but are used differently depending on where you are in the world, and which school district is examined (Todhunter, 2013). For example, keeping track of what blended learning means when there are so many different variations to the term can be difficult, so ensuring that a common understanding of the language is examined and will be a primary focus of this chapter.

Once the language of Distributed Learning has been established, there are several areas of study that will focus on how to create engagement in the online classroom. Considering the different methods of evaluating engagement will be key, as there are multiple ways of achieving this in Distributed Learning (Xie, 2013). He believes the measure of engagement is not only whether a student finishes a course, but through communication records and online logs, there are ways to measure engagement more thoroughly throughout the online learning process.

The goal of student engagement originated in the traditional classroom, where face-to-face interaction is primarily how students engage in their studies both with their instructors and with their peers; so finding what techniques worked in the traditional classroom, and then how to apply this to the online world will be a reasonable starting point. Looking at key features of engagement in the traditional classroom, and paralleling those with what can be accomplished in the Distributed Learning environment will allow for a strong understanding of what needs to be achieved if engagement is going to be promoted online.

Meeting the needs of different types of students is essential in creating engagement, as there are a variety of learners that take an online course, meaning there are a variety of learning styles that need to be addressed (Selma, Vonderwell, & Boboc, 2008). By examining the different types of online students, and the different technological methods available to share information, the DE teacher can promote engagement and create community within Distributed Learning. Distributed Learning is available for students of all ages, not only adults or university students, and finding the common traits of engagement that work across this age spectrum will be a focus (Remedios & Richardson, 2013).

This chapter will consider studies from around the world that focus on Distributed Learning, and ways in which to promote engagement. The findings of these varied and diverse articles will be reviewed, dissected, and reflected upon, to gain a broad understanding of what it takes to create engagement in the online classroom. This information will then be used to make recommendations for future use and implementation at Fraser Valley Distance Education School.

Definition of Terms

Terms used in Distributed Learning are not universally understood from school to school and district to district, and as Todhunter points out in his article "Reflection LOL – Limitations of Online Learning – Are We Selling the Open and Distance Education message short?" these terms are often interchangeable or have completely different meanings depending on the Distributed Learning School (Todhunter, 2013). Ensuring that there is an understanding of what these terms mean are important in understanding how they play a role in student engagement.

In order to define the terms pertaining to online education, the term *traditional school* must be defined as the counterbalance, which is schooling that takes places in a brick and mortar building that has been the dominant instructional setting since the early 20th century.

Online Education consists of courses that are completed entirely through the Internet, where there is no face-to-face interaction with the teacher.

Blended learning is a mix of traditional schooling and online education, where students may attend a classroom setting for up to or exceeding two days a week, and the rest of the time are expected to complete their course/program online. For example a student would come to a class two mornings a week to learn directly from a teacher on how to complete a poetry assignment, and then leave the class to complete it at home the other three days of the week, and submit online when completed.

The Flipped Classroom is a take on blended learning where instead of coming to class and learning how to write a haiku, students learn how to write the haiku on their own, and use the actual class time to write it.

The Virtual Classroom is one where there is an online program such as Blackboard Collaborate or V-Class where students can log in and view a presentation that is being put on by their teacher using PowerPoint, or a digital chalkboard. Students also have the ability to interact with one another through video and online chat features that are monitored by the teacher.

Distance Education is the term used to describe someone completing courses physically at a distance. This does not necessarily have to be through the computer, and *Correspondence Courses* that are completed on paper could also fit under this definition.

Distributed Learning means a student taking courses at a physical distance but through an online program instead of through paper. Distributed Learning requires a student to use strictly online assignments and all work is exchanged electronically.

There are two primary models of course timelines used in Distributed Learning: asynchronous and synchronous. An a*synchronous* model means that the course is not held to the traditional 10-month school year. Rather, students have 12 months to complete a course from the time they are enrolled, and this enrollment can occur at any time of the year. A *synchronous* model is one that is held to the 10-month school calendar, where a student is enrolled in a course in September, and must have it completed by June (M & Jones, 2009).

The Literature Review has been organized into several subtopics

Misunderstandings

The terms used in distance education are inconsistent and lack clarity, and Barrie Todhunter examines this in depth in his article in *Distance Education* "LOL – Limitation of Online Learning – Are We Selling the Open and Distance Education Message Short. Todhunter looked at a specific Australian University and how over time the terminology of distance education has evolved with the rise of more online courses available at the university. The future strategic direction of the school, particularly with respect to a proposal to use "online" as an all-encompassing term for all off-campus teaching and learning, was debated at the administrative level due to these conflicting terms. Inconsistent application of these terms would prove to be a significant factor in the perceived inability to promote student engagement and social interaction.

From 2001 to 2012 this Australian University has seen an evolution of off-campus or distance education programs being offered from correspondence, multimedia, tele-learning and flexible learning, while cutting down on the need for printed study materials. There was an increased focus on web based materials (Todhunter, 2013). This strategic build up in online education over time has resulted in this university being awarded international awards for open and distance education, and now boasts off campus enrolment numbers at 80% of the total of 20,000 students. Even with this success there are concerns moving forward regarding the state of online learning and recognition that improvements can be made.

While creating a strategic plan in 2012, the university decided it was time to move away from the term distance education, and instead replace this with online education; however, this created concern that it would cause prospective students to turn away, as it was a term that brought negative connotations. It was feared "students who are cautious about undertaking studies in a mode where they do not see a match between their preferred learning style and their study mode, and which may not be well supported, putting them at risk of diminished achievement of learning outcomes, and even possibly failure (Todhunter, 2013). Online education is thus viewed as a rigid system that does not meet the needs of the students. Even though the program would essentially be continuing in a similar fashion, it is the change to the term 'online' which caused fear and misunderstanding. "The growth of e-Learning has blurred the boundaries of educational modes, and a review of the literature suggests that distance education sector lacks clarity in its language and precisions in this typology of teaching and learning environments" (Todhunter, 2013). Students will be hesitant to take part in a program labeled "online" because it is thought it cannot meet their educational needs, but the flexibility of online learning has not been explained in full.

The assumptions of exactly what online learning is, have an effect on those willing to take part and benefit from what it has to offer. It is this perceived lack in flexibility and connection that causes students to hesitate. This finding is corroborated by the work of Pamela A. Havice, Taurean T. Davis, Kerry W. Foxx, and William L. Havice in their article "The Importance of Rich Media Presentations on A Distributed Learning Environment: Engagement and Satisfaction of Undergraduate Students" found in *The Quarterly Review of Distance Education,* as the authors find that "students perceived online courses as more academically demanding compared to the face-to-face classroom, and as having greater workload than blended instruction" (Havice, Davis, Foxx, & Havice, 2010). Before a student enrols in an online course, there is an assumption that more work is going to have to be completed than in the traditional classroom, turning students away at the outset. Chris Dede reports in *The American Journal of Distance Education* that "distance education is primarily used in selective situations to overcome problems of scale (not enough students in a single location) and rarity (a specialized subject not locally available) (Dede, 1996). Such instruction is often seen as "half a loaf" pedagogy; better than nothing, but not as good as face-to-face teaching (Dede, 1996). The assumptions of Distributed Learning are inhibiting student engagement before there is an attempt to even take part in the program, and should universities wish to grow their Distributed Learning courses, they must work to dispel these assumptions.

Student Interaction

The benefit to an on campus or traditional classroom experience is that students can interact with one another instantaneously and sporadically and as the educational need calls for it. Students can quickly form groups in class or in the hallways; these social interactions are an

important way of creating spaces that create relationships, cohesion, trust, and belonging (Todhunter, 2013). It is this interaction that students are looking for, as it creates engagement and a sense of community that helps them strive to succeed. It is not only the course material that motivates. Unfortunately the terminology of online education does not promote the interaction with their peers.

Todhunter notes that the term distance education should be kept, and that by changing the name of the program, just for the sake of updating the name, does the school a disservice. Since the terminology is confusing and conflicting, he believes it is better to stick with the term prospective students understand, and the one in which current students are finding success in. While the terms flexible, blended, or hybrid may be more accurate in terms of the programs of study, they are not clearly defined enough to promote student attendance.

Todhunter concludes that it is easier for a new school or program to define what their program will be using the different terms available, as they have the opportunity to define what these terms will mean in their new program. Since there is a lack of consistency a new program does not have to hold to any set standard, or to a program that is already put in place. In the case of the Australian University, they already have a set of terms that they have meaning in their program, and changing those will effect who decides to attend their school (Todhunter, 2013)

Todhunter was successful in reviewing the results of how the terminology used in online education at one university was affecting the future strategic plans, and ability to bring students to the university. This was the experience of a single school, so further study and review of other schools and the developments of their online programs would allow for greater understanding of how this migration to online classes has effected other institutions. One must consider why

prospective students are sceptical around the term of online education, and what in their previous experiences has led them to avoid this type of education.

Influences on Online Student Behaviour

In the traditional classroom students have the ability to interact and communicate face-to-face; this is limited at an online school. In order to help foster greater interaction between students some seminal work has been done. The article "What Do the Numbers Say? The Influence of Motivation and Peer Feedback on Students' Behaviour in Online Discussions" found in the *British Journal of Educational Technology,* written by Kui Xie, looks at the habits of 57 college students in an on online course. Xie found that motivation and peer feedback predicted both posting and non-posting behaviours in online discussions. This information proves useful in determining how online discussion groups can be used to determine student success in an online course (Xie, 2013).

To conduct this study Xie used 57 participants from an online instructional technology class at a large Southeast University in the USA. These students were monitored over a 4-week period during an accelerated technology course with 11 males and 46 females being observed using WebCT and iDiscuss systems. Satisfaction surveys were also used. Of these 57 students 93% stated that they considered their confidence level as high in their ability to use technology. This point cannot be overlooked, as the interaction of students is highly dependent on their ability to use the technology at hand. If students spend time struggling to use WebCT or iDiscuss their experience with the course will be altered. The age range of students in this course were from 20 to 60 years old but data was not separated by age, meaning it is difficult to look at the results of this study and correlate age and technological experience.

Kui Xie seeks to determine how students' non-posting habits contribute to involvement in an online course using asynchronous online discussions (AOD), which are viewed by both staff and students to directly comment on other peoples' thoughts and ideas. Students were able to rate the responses of other students out of four stars. What is not considered are the negative interactions that could take place between students that would influence the rating system. It is possible they have had interactions with one another on campus that would influence the ratings of their contemporary's posts. What Xie argues is that: "Students in online discussion exhibit both posting and non-posting behaviours, but non-posting behaviour is often neglected in educational research. Students' motivation and peer feedback have been proven to be critical factors that influence student behaviour in online discussions, while most empirical studies have focused on posting behaviour and neglected non-posting behaviour" (Xie, 2013 p. 288). While it is easy to view a student's posting behaviour, it is difficult to determine actual understanding with the course material. Xie is correct in stating that non-posting behaviour is overlooked, and the amount of times a student logs into a course without actually posting anything prove interaction (Xie, 2013).

To determine student participation in terms of posting activity, the total number of posts, and the total length of posts were used as indicators. The total numbers of characters were taken into account to determine length. While one might think a longer post means better understanding this data did not take into account the actual quality of the post, just how long it was. This may be an indicator of engagement, but not understanding. The non-posting behaviour was measured by the total topics read, total number of rating given, average rating score given, total number of times logged in and total lengths of logins. Where the previous section did not take into account quality, the rating system in this section does.

Looking at quantitative participation data, feedback data from the iDiscuss system, and intrinsic motivation data using survey questionnaires, Xie attempts to piece together online student habits and motivation. By using these three varying techniques to determine student habits, this helps bring credibility to this study and seeks to overcome the shortcomings of only using one technique. By bringing in data from both a qualitative and quantitative approach Xie attempts to paint a clear and balanced picture. While other studies may not use the same balanced approach to information as Xie, there is still value in their findings.

Community Building

"Caring in a technology-mediated online high school context" found in *Distance Education* by Velasquex, Graham, and Osguthorpe looked at how caring is experienced in the technology-mediated context of the Open High School in Utah, which is an online school. Two female teachers, two male students, and two female students were interviewed three times over 9 months and asked about their experiences of caring teacher- student interactions. The authors admit that traditionally caring has been examined in the traditional school setting, and the impression of online education has been one that is impersonal, but what is attempting to be proven is that "it is possible to form well-developed interpersonal relationships online" (Velasquez, Graham, & Osguthorpe, 2013).

Velasquez et al define caring as "a phenomenon in which the giver (the one caring) is responsible for approaching the receiver in an open, non-selective, receptive attitude (Velasquez et al., 2013). This notion of caring and putting aside bias in order to teach the student is key to creating engagement. The student must not feel judged upon entering an online course, and it is only through this lens of caring that engagement can be developed. This caring thus helps to cut

down the perceived distance between student and teacher that is often a prevalent issue in online education. Through this caring attitude an online educator has the ability to decrease the psychological and physical distance between student and teacher. In order to test these ideas a case study approach was undertaken.

Teachers were asked to provide a list of those students they felt they had a positive relationship with, along with a list of those they had a negative relationship with. Two males and two females from the positive lists were chosen and interviewed three times over the school year with the first meeting focusing on the participant's previous experiences with online education, the second understanding the caring experience and technology choices made to support caring interactions. The third was used to address any follow up topics that required greater depth (Velasquez et al., 2013).

All meetings were tape recorded and broken into themes with: shared experience, continuous dialogue, vigilant observation, structuring learning, environment, attending to students' individual academic needs, attending to students' well-being, and student reaction coming out as the most referenced set of terms. Both student and teacher expressed the need to work together, despite the physical distance between them. Speaking about shared experience one of the teachers noted:

> [If] she's having trouble with something rather than just trying to explain it to her when she doesn't understand it, I can show her my computer screen and I can highlight things and point things out to her and draw things to explain it to her differently, that without that technology unless she was sitting in a room right with me I never should have been able to….teach her half the stuff I have so far (Velasquez et al., 2013).

Equally the student responded with:

> I kind of felt that, you know, really good because she's taking her time and kind of putting her attention toward my work and what I'm doing…It's really nice to be able to talk to my teachers during a class, to do it during while you're doing a class (Velasquez et al., 2013).

What this shows is the importance of making sure to connect with students in more meaningful ways than just commenting on student work. What the student appreciated in this example was how she felt when the teacher took the time to work with her individually. This connection proves that initiating care makes the students feel wanted and supported. It is through this type of interaction that engagement will occur.

In the same vein as shared experience, the need for teachers to initiate dialogue is necessary to support student engagement. Students felt that when teachers went out of their way to make phone calls and email to check in and see how students are doing, you get to know the educator as more than just a teacher (Velasquez et al., 2013). Teachers noted that they took the time to actively call and email those students who have been inactive to ensure they are working on the course, but this can be juxtaposed to Xie's study where non-posting behaviour was taken into account, which was not included in this study.

The students in Velasquez, Graham, & Osguthorpe's resarch were handpicked by the teachers themselves, and had no quantitative data to determine engagement, only using interviews with handpicked students (Velasquez et al., 2013). Also noted, as limitations to this study are the time elapsed between the experience under study, the interview process, and the lack of pre-planned criteria to aid in determining a caring teacher from a non-caring teacher. Where this article does succeed over Xie's study is in the use of high school students. This is far more applicable to teaching high school in the lower mainland. Where the experience of college students is relevant; looking at high school students specifically is far more applicable.

In order to measure the students' subjective feedback on the course and collect qualitative data Xie used the Intrinsic Motivation Inventory (IMI), which was used to assess participants' subjective experience related to posting their responses in the course. This survey was modified

to specifically address students motivation in an online class (Xie, 2013). It is not clear how these questions were adapted from the original survey, as Xie does not go on to explain the changes that were made. The IMI contains thirty questions pertaining to enjoyment, autonomy, competence, and relatedness to student peers. It needs to be noted that students were required to post 20 messages over the four-week course, which would have an impact on the survey results. If students feel they are required to participate you will undoubtedly have students use the online posting site because if they do not it will hurt their grade. Due to the fact the students knew this is required of them, it could impact the results of the survey, as they know discussions are something the professor believes in. The results of the IMI are anonymous which would cut down on the false responses, but if the journals were not required, it could result in more honest feedback. Should students choose not to use the online discussions at all it would be an indicator that the discussions themselves do not create engagement, regardless of the posing and non-posting behaviour.

"Promoting Formative Assessment in Online Teaching and Learning" By Selma Koc Vonderwell & Marius Boboc from the journal *Techtrends* states that:

> In this case, pairing up should take into account the complexity and frequency of journal entries, how they could be tied to other course assignments, their over- all weight toward a final grade, as well as prior student-to-student interactions. This may re- quire gradual implementation and proper modelling of online journaling before students can fully engage in the learning opportunity. (Selma et al., 2008)

Vonderwell and Boboc came to this conclusion after reviewing 27 articles discussing online learning, and this helps to clarify some of the missing pieces in Xie's article around the weight of the discussion groups. If the amount of each posting weighs heavily toward a final grade students may participate out of sheer requirement, not out of true interaction. There is no mention of how the posting material would be weighed compared to tests, papers, or other assignments.

Vonderwell and Boboc reinforce the previously stated issue of prior student-to-student interaction. Proper modeling is also of use and feeds into the idea of technological experience. Both the technical ability of how to post must be shown, as well as the proper moral use around respect and responsibility of posting online. Without these skills students will be unable to effectively use online discussions, which will promote interaction and engagement.

Online Assessment Practices

Vonderwell and Boboc believe that the assessment practices used "send a very strong signal as to what is important and how they [students] should approach learning (Selma et al., 2008). Teachers in the online classroom need to be cognizant of what methods or rubrics they are using to evaluate their students, as well as when and how feedback is provided. There is potential in using online systems to monitor student progress and provide formative feedback. So often in an asynchronous online course student work is submitted before it has a chance to be reviewed, or for a student to ask questions before handing in their work. Equally in an asynchronous model the coursework is already laid out, and students move from one assignment to another freely, with little to no adaptation made during their time in a course. In their findings Vonderwell and Boboc noted that teachers believed students needed to ask questions or they did not have enough information to understand whether student learning is taking place.

As one example, reflective journals that are placed into an online course would allow students to provide and receive feedback continually throughout the course in order to pinpoint where they are succeeding, as well as where they need improvement. If teachers are unable to make regular phone contact with a student, or a student does not have the ability or courage to contact a teacher, similar information can be provided in a journal entry (Selma et al., 2008).

With this said the questions placed in a journal entry cannot be vague, and need to have specific criteria included if they are to be successful.

The questions and expectations that are used in an online journal need to be well thought out and come with a specific structure. Careful attention need to be given not to overwhelm students through journal entries, as it will lose its impact and you will not get honest and thoughtful answers. The questions in the journal entries must be relevant to student learning, and be based on the course content and it's learning outcomes.

Another example of a type of journal entry is the minute paper, where a student would have to answer two specific questions: What is the most important thing you learned today, and what questions (s) do you still have in mind? These questions would allow for regular feedback from students, while providing instructors with a means to identify learning needs in their online classrooms, allowing the teacher to check student progress and understanding, providing the relationship of care that is required to create engagement.

Where Vonderwell and Boboc fall down is the fact they have not implemented a study to actually try and evaluate these techniques, but rely on the data compiled by other studies. Xie's findings have flaws, but his theories have directly been put to practice. Xie concludes that students posting and non-posting behaviour indicate that students who post actively in an online course are more engaged and result in a more active online participation. The results of this study are to be relied upon because both qualitative and quantitative data are used. This is a relevant article because it deals exclusively with online students, which can be applied directly to online schools locally. Where this article falls short is the lack of information regarding age, and technological experience. There is no discussion around this issue as the vast majority of students felt comfortable with using technology. This is also a course directed at college students,

meaning the results may not directly apply to high school students. This was also a very short course lasting only 4 weeks, and it must be questioned if the positive feedback from the IMI would continue if this study were looked at over a twelve-month period. Would the discussions become mundane and boring, resulting in less posting, and non-posting activity? This study is a good starting point containing lots of data, but there are questions that need to be considered around the length and sample size that must be addressed.

Types of Online Learners

Something that needs to be considered is what age range as well as courses best suit online instruction, and how does this effect online engagement? In Dawn Wilson and David Allen's article "Success Rates of Online Versus Traditional College Students" concerning practices at Black College in the United States, data was obtained from four courses, two traditional and two online to determine why there has been a history of online students withdrawing, failing to complete assignments, and flunking out of online classes. The total number of students studied was 100, taking Management 311 (Principles of Management) or Management 420 (Organizational Behaviour), with both having online and face-to-face offerings.

Upon reviewing the data from 2010, Wilson and Allen found that those students who entered an online program for the first time with a GPA that was high did well in the program, where students with a low GPA did not fare as well. This is similar to the findings of Carrie Furrer and Ellen Skinner, who in their 2003 study "Sense of Relatedness as a Factor in Children's Academic Engagement and Performance" published by *The American Psychological Association* recorded that students who entered a grade 6 classroom and had positive previous

experiences in relating to their teachers and peers, continued to have this sense of relatedness, but for those who came in with poor experiences, their ability to relate to their teachers and peers continued to decline (Furrer & Skinner, 2003). What is seen in both studies is the role that prior experiences have on students entering the online class. Those who have previously have a low GPA, difficult interactions with teachers or peers, and a lack in technological experience will suffer in Distributed Learning.

Student-Teacher Online Interaction

There was a clear belief that online learning is not effective for all learners, or necessarily for all subjects. Online learning can be quite effective depending on the subject, and courses such as math or science, face-to-face interaction needs to be provided to support the learner in understanding new concepts (Wilson & Allen, 2011). However when reviewing the academic history of the students sampled, those with a low GPA had a low cumulative GPA, combining both the online and face-to-face courses they took, and the data for those with a high GPA proved the same. These students had a GPA that was consistent across both types of courses, showing that the ability of the student may have a greater impact on their education than whether they take a traditional or online class. Equally the drastic difference between online courses and traditional courses dropout rate appeared exaggerated, as the gap was not as wide as previously assumed (Wilson & Allen, 2011). Unfortunately, Wilson and Allen do not go into further detail about this gap, which is a flaw in this study, along with the small sample size. A longer and more detailed study regarding the difference between these two modes of study is needed for further clarification and understanding.

What this study highlights is the idea that intrusive academic advising or more personal contact with the instructor through traditional face-to-face instruction, or through an online interaction in the form of chat, texting, or discussion boards is crucial to the success of those students with a low GPA, regardless of the type of class (Wilson & Allen, 2011). It is suggested that before taking an online class, students should take a self-directed multimedia training session on how to take an online course, and this should be a prerequisite for all online students. In addition course instructors must make an effort to engage students during online instruction, just as they would in a traditional classroom, reminding students of exams and deadlines. It is this personal interaction that a student requires to be successful in the online classroom, and teachers need to embed these methods into their practice. This idea is shared and explored further by J.B. Arbaugh in his article "Managing the On-Line Classroom: A Study of Technological and Behavioural Characteristics of Web-Based MBA Courses" found in *The Journal of High Technology Management Research,* where 222 students taking an online course in an MBA program at an American University were interviewed and/or filled out a questionnaire regarding their experience. Arbaugh found that "An emphasis on interaction is strongly associated with student learning and satisfaction…These findings provide some support for previous theoretical and empirical findings that suggest than an interactive teaching style may be the most appropriate pedagogical approach for web-based courses" (Arbaugh, 2002). Often in an online course the parent is working with students at home and is giving the direct instruction, but this cannot be the only human interaction that the students has, and removing the physical presence of a teacher to guide and support learning can have an impact on how students' learn (Carnahan & Fulton, 2013). This is further support that an interactive and supportive relationship initiated by the online teacher results in greater student success.

Abigail Hawkins, Charles R. Graham, Richard R. Sudweeks, and Michael K. Barbour in their article "Academic Performance, Course Completion Rates, and Student Perception of the Quality and Frequency of Interaction in a Virtual High School" found in *Distance Education*, echo the sentiments of Wilson and Allan, speaking to the need for student-teacher interaction in the online classroom. In their study Hawkins, Graham et al surveyed 2269 students an asynchronous, self-paced American virtual high school. The survey asked students about the quality of interaction with their teachers around feedback, procedural, and social interaction (Hawkins, Graham, & Sudweeks, 2013). While there is a perception that online courses cannot engage students, the literature in this area indicated that it is possible to create a sense of community among learners who do not have face-to-face contact (Hockridge, 2013).

When considering feedback there is concern regarding limited student-teacher interaction with students citing a lack of timely feedback their greatest concern. This led to students feeling ignored, lonely, or lost and was an impediment to their learning (Hawkins et al., 2013). Those virtual schools with the highest completion rates placed timely student feedback into their best practices. After reviewing procedural interactions, policies and practices that required teachers to track student progress and proactively reach out to inactive students through e-mail, telephone, and monthly student and parent consultations resulted in higher completion rates as well as student satisfaction (Hawkins et al., 2013). Socially, students seek out interactions with their teachers in the form of self-disclosure, humour, and encouragement. Students who were struggling in the online classroom missed social interactions and felt distant from their teachers, and would have preferred to get help from their face-to-face teachers.

Hawkins et al conclude "the quality and frequency of interaction had a significant impact on student completion but not on grade awarded. Increased levels of the quality and frequency

of interaction resulted in increased student completion (Hawkins et al., 2013). It is through this increased interaction that students were given the motivation to complete a course, but it's also the timing of this interaction that is key. An emphasis needs to be placed on ensuring interaction at the beginning of a course, as this is the time students are more likely to be engaged in their schooling. Within the first day of enrolment a teacher should interact with their student, taking advantage of this initial engagement. Types of interaction would be a course designed to show students how to use the learning management system, and how to interact with course content, information about the course and learning outcomes, and an introduction to the teacher and a warm welcome to the class (Hawkins et al., 2013). These suggestions are all designed to scaffold student understanding of how to use the online material. Not only do we need to scaffold the information in course content, but how to use the content must be taught and practiced, combined with creating a personal connection with the teacher in the form of an introduction and personal communication. Communication between teacher and student is not the only form of interaction that needs to be created.

"Importance of Developing Community in Distance Education Courses" found in *Tech Trends* by Robert L. Moore emphasizes the need to create centers of community within an online school and class, not only interaction between students but with teachers as well. By creating centers for students to feel a sense of community it allows students to feel connected not only to their instructors and classmates, but also to the content (Moore, 2014). It is important the online school be a place of connection between all involved including interaction between students. All types of classrooms are places of social activities, and student do not learn alone but instead in the presence of their peers (Ryan & Patrick, 2001). Without this peer-to-peer exchange students will feel isolated and have more stress than those who take part in actives exchanges with other

students, validating their experiences and sharing their feelings (Moore, 2014). When looking at a hybrid verses traditional model of a Romance Languages and Literatures course at the University of North Carolina at Chapel Hill Department, it became clear that while the hybrid course had similar exam marks as those in the traditional course, when surveyed students in the online section had a lower level of satisfaction with the course, and more frustration due to a lack of community.

In order to facilitate this study the hybrid group combined face-to-face instruction with online learning activities using an online textbook were employed. This model would have the students meet face-to-face with their teacher for one hour, spend an additional instructional hour in a small group of six to eight students, and spend another hour with a peer tutor with the rest of the time spent with the online textbook. Both courses had common core assignments and the students were given the Sense of Community measure developed by John Schweitzer at the Michigan State University, which measures community, design, connection, participation, safety, support, and empowerment. To conclude the language course both sets of students were required to write a written exam and take an oral exam, with the hybrid students scoring slightly higher on the written exam, but lower on the oral exam. The professors were surprised by the survey results that indicated the hybrid students were less satisfied with their experience due to a lack of connection, despite the fact the program designers went out of their way to implement student interaction (Moore, 2014). The hybrid students reported high levels of frustration as it appeared that the students thought they were learning less because they had to do more learning on their own, leading to a sense of frustration. This frustration was creating an additional obstacle to their learning and thus impacting their perception of their own learning (Moore, 2014). Even with the addition of small group instruction, students were feeling frustrated and did not feel

comfortable coming to their instructor with questions. Students need their social and emotional aspects of learning met if they are going to feel comfortable opening up to their professors and ask for help (Reyes, Brackett, Rivers, White, & Salovey, 2012).

Online Course Design

Moore comes to the conclusion that regardless of these unexpected results, the exam marks are very similar between the two systems, and when creating an online hybrid course, designers should strive to build community in their courses using discussion forums, ice-breakers, orientation videos, and testimonials from past successful students. Recognizing that teaching in an online environment is a dynamic and fluid process that requires flexibility and engagement will be key in its future success, and creating community is the first crucial step toward this goal.

In the same way Moore looked at how a hybrid model of education would benefit students, Jacqueline E. McLaughlin, Mary T. Roth, Dylan M. Glatt, Nastaran Gharkholonarehe, Christopher A. Davidson, LaToya M. Griffin, Denise A. Esserman, and Russell J. Mumper sought to better understand the use of a flipped Classroom model at the University of North Carolina Eshelman School of Pharmacy in their article "The Flipped Classroom: A Course Redesign to Foster Learning and Engagement in a Healthy Professions School", found in *Academic Medicine*. Instead of having students attend a lecture hall to hear a presentation; all lectures were turned into self-paced online videos and filled the scheduled class time with active learning exercises, promoting critical thinking and problem-solving exercises. The information that was to be done in a lecture hall was now to be completed before a student comes to class with the intention of providing more opportunity for hands on learning.

In order to assess the students' interaction, engagement, and reflections on the flipped classroom model, students were given a voluntary survey at the beginning, and at the end of their course, with 150 of the 162 student completing these surveys. The results from the survey indicated that "91.2% of students agreed or strongly agreed that teaching and learning methods in the flipped classroom promoted understanding and application of key concepts, 95.6% agreed or strongly agreed that they were confident in their ability to apply the knowledge and skills they developed, and 98.1% agreed or strongly agreed that the knowledge and skills they developed would be relevant for the future" (McLaughlin et al., 2014). It must be noted that this program is based on practical skills, and the use of the flipped classroom could be seen as more useful when you have a skill that you are trying to apply. If this survey and flipped classroom approach was used in an English class, it is uncertain if it would yield such high results, none-the-less the participants in this survey clearly had a positive reaction to the change in learning style, and students felt like the use of class time for practical skills was a positive change, with 91% of respondents strongly agreeing or agreeing that the overall course format of the flipped classroom greatly enhanced their learning.

McLaughlin et al note this positive response is due to the interaction that is achieved in the flipped classroom. By offloading content, the flipped classroom encourages students to explore the material and develop new skills on their own, with the understanding that they would apply this new knowledge through various learning exercises. Active learning in the form of applied activities and in-class discussion with other students and the teacher highlighted relatedness. Clear and immediate feedback enabled students to identify their strengths and weaknesses, improving exam performance and creating confidence in their abilities (McLaughlin et al., 2014). Creating these positive results does not occur without careful thought and planning,

which McLaughlin et al outline out in five points. 1. The textbook is no longer required reading, as it becomes out of date so quickly. 2. Student presentations and discussion are replaced with a 30 minute active learning exercise based on group discussion of contemporary research articles that best apply to the concepts of the course. 3. The teacher administered and graded 20-minute quizzes online, outside of class time via the course website. 4. On the last day of class all students reviewed and graded three other students' final projects as a learning experience. 5. The Pharmacopedia course was developed to be used an as information portal for expanding concepts, new technologies, breaking news, current clinical trials, new drug products, and web links. The importance of point 5 is that the information on the webpage is relevant to the students' academic experience and is somewhere they will want to go to share and acquire knowledge. Should information be deemed out of date, or inconsequential to their learning, the website will fail to be a tool used to build community and share ideas. Kaymak and Horzum in "Relationship between Online Learning Readiness and Structure and Interaction of Online Learning Students" support the ideas that there needs to be specific structure built into a course with a goal of relevant information. "Structure consists of design of the course, content's being updateable, individual adaptability according to the needs of the students. Elements such as learning aims of the course, content constituents, information presentations, case studies, activities, and tests constitute the structure elements" (Kaymak & Horzum, 2013). These five points foster the community and interaction that is required in a flipped classroom, and in the online world. It's this interaction with students, teacher, and the practical application of skills that made this flipped classroom a success, and these ideas must be replicated in other environments if they are to be successful.

It's this course design that is vital to the success of an online program, as it must be relevant, which is what Stuart Palmer and Dale Holt look at in the journal *Interactive Learning Environments* considering "Students' Perceptions of the Vale of the Elements of an Online Learning Environment: Looking Back in Moving Forward". In 2004/2005 at Deakin University in Australia the authors obtained over 5400 responses from students in order to identify those elements of an online program that are most used and valued, those elements that student would like to see improved, and those that improved their learning experience (Palmer & Holt, 2010). In an attempt to bring together all students in one community, the schools created an Online Learning Environment (OLE), which is a location to access learning materials, and create channels of communication with teachers and fellow students. All students regardless of being strictly enrolled in traditional classes or online classes were entered into the OLE. In 2004 and 2005 both staff and students were given a questionnaire called the Student Evaluation of Teaching and Units (SETU) following every unit of study. The central focus around this questionnaire was "The online teaching and resources in this unit enhanced my learning experience" (Palmer & Holt, 2010), and there were 26 questions with a rating scale between 1 and 7, one indicating a low satisfaction, and seven indicating a high satisfaction with the OLE.

What students responded as their least used feature and that could use improvement was the chat/white board option as it did not work reliably meaning communication with other students was interrupted and unreliable. This speaks to the need to make sure that technology is rolled out at its peak performance, since if the first impression of the system is negative, this will not be something students or faculty will want to continue to use. The kinks must be worked out before asking students and faculty to participate. Equally, students have the ability to communicate with one another without using these online systems put in place by the university,

as with programs such as Google Docs, Skype, and instant messaging on smart phones, students are already engaging with one another. It must be considered whether implementing a new system of information sharing is the best course of action, or taking advantage of cost effective programs that students are already using is a better option (Palmer & Holt, 2010). Palmer and Holt investigate these ideas further as to the usefulness of purchased Learning Management Systems (LMS).

If a university is going to purchase a LMS the possible rigid constraints on educators and students must be examined. This idea that a system can be brought in and used in a one size fits all fashion is not reasonable, as every institution has its own needs and requirements when it comes to online supports. The rise of social software tools, such as such as blogs, and wikis, have been enthusiastically adopted by many educators to expand the types of online learning experiences they can offer to students, but these features have been slow to become widely available in commercial LMS. Other recent developments include the emergence of open-course environments which are free of cost but there is an in house expense for configuration and maintenance (Palmer & Holt, 2010). These online programs are not going to engage students if they are less successful than the programs that are already put into place (Lawrence & Lentle-Keenan, 2013). If Wiki's and blogs that are free and open source are already being used effectively and efficiently, then replacing them with a less successful system will only turn students away, creating less engagement with their teachers and peers. There is a fine line that needs to be considered between implementing and new consistent and centralized program that can be tracked and monitored, as opposed to systems that are already in place and working well. Whichever promotes the most student interaction is what needs to be used. Looking at how

social media plays a role in this advance in student interaction plays a valuable role in understanding what a conventional LMS system is competing with.

Bridget K. Welch and Jess Bonnan-White investigate the use of Twitter to promote engagement in a large-scale lecture format at a large American University in their article "Twittering to increase student engagement in the University Classroom" found in *Knowledge Management & E-Learning: An International Journal.* The underlying assumption that the authors propose is that using social media website such as Twitter will promote student engagement, and allow them to work closely with their course material and get greater meaning out of it. The use of Twitter was viewed through the lens of four categories: Academic, Peer, Intellectual, and Beyond-Class (Welch & Bonnan-White, 2012).

To measure their theory Welch and Bonnan-White looked at two section of Introduction to Sociology and two sections of Introduction to Cultural Anthropology offered in a 15 week fall semester and was a traditional classroom model. During the second last class of their course, students were asked to complete a survey of the ways Twitter supported their engagement in the classroom. Students were asked to answer 18 questions total on the four categories previously outlined, as well as four open ended questions:

1. Describe your experience with Twitter over the past semester. What did you like? What did you not like?
2. Compare this course to your other general education courses that did not use Twitter. Did you find yourself enjoy this all more or less? Did it affect your involvement during lecture or outside of the classroom?

3. Besides the fact that you got points for using Twitter to answer questions, do you think it affected your grader and/or classroom performance any other way? If so, how?
4. Did you ever use Twitter to ask a question or make a comment during lecture? Do you think the ability to do this added to your classroom experience?

What the results showed was that those who enjoyed Twitter were more likely to report being engaged with peers and be intellectually engaged than those who did not enjoy Twitter. Those who enjoyed Twitter were significantly more likely to report engagement beyond the classroom than those who did not (Welch & Bonnan-White, 2012). When reviewing the results as a whole there was no significant affect of Twitter on student engagement when a student did not have prior experience with the program, as it proved difficult for student to transition to this type of online community, taking more time to understand the program itself than engaging with the course material. A student responded saying "I tried [to use Twitter to ask questions or make a comment] but my phone did not cooperate. I also found it hard to learn how to use Twitter", with Welch and Bonnan-White stating that: "Research on the effect of social media on student engagement has noted that the type of media and students preference do mediate affects on academic performance" (Welch & Bonnan-White, 2012). Had the researchers used Facebook as opposed to Twitter the results may have come out differently depending on how much experience these students had with the program. "Twitter made my grade go down. I just could not get into it the way I do Facebook. I was never on Twitter until this class" (Welch & Bonnan-White, 2012).

Summary

This information from the Welch and Bonnan-White article support the notion brought up in by Palmer and Holt that existing programs may be more useful in promoting student engagement than bringing in a new school wide LMS system. However what is gleaned from Welch and Bonnan is that not every student is necessarily going to be familiar with existing technology either, and those who are unfamiliar will not necessarily become engaged by using it. The learning curve in understanding a new type of technology can hinder its use, and cause student engagement to decline. What was discovered in "Student's Perceptions of the Value of the Elements of an Online Learning Environment: Looking Back in Moving Forward" is that the most used and valued elements of a LMS was it's function including accessing unit information, accessing lecture notes, contacting lecturers and submitting assignments. Those features that required the most attention were receiving feedback on assignments, viewing marks, and reviewing unit progress. These systems are critical for assisting students to become engaged in their learning. When these systems supported student learning in a user-friendly manner, and was supported by teachers and technical support the systems were considered useful. "As far as the issue of resources is concerned, we do recognize that resources are essential; successful inclusion depends on resources, both human and material, but also on their successful implementation. Simply more people or more computers are not enough; rather, how the resources are being utilized is of important and this issue has be addressed" (Avramidis, Bayliss, & Burden, 2000). Prior experience with the online programs also helped to promote student engagement.

Distributed Learning is an educational delivery system that allows students to take part in an educational opportunity without having to actually take part in a face-to-face environment.

With the growth in the development of the internet and improvement in technologies that support online learning, more students than ever have the ability to take part in an online course (Johnson & Aragon, 2003). In 2011 in the United States 4.3 million undergraduate students were taking at least one distance education course, with 800,000 taking fully online courses (Paul & Cochran, 2013). With the use of learning management systems, Twitter, Wiki's and online blogs the potential for course and school based centers of electronic community are possible with the hope of increasing student engagement. This engagement is not only fostered through the use of electronics, but also through the connections created between students, peers, and professors. When students felt that their needs were being met educationally, feedback was timely and clear, and teachers went out of their way to communicate directly and personally with students, engagement was fostered (Moore, 2014). The more that this feedback on assignments was given verbally the more impact it had on students, which is where video technology can aid in student engagement (M & Jones, 2009). It is only in replicating this face-to-face interaction in the online environment that engagement in the online classroom can be achieved, motivating students to be successful in their courses.

Overcoming the perceived negative attributes of Distributed Learning in the form of key terms proves to be a difficult task, as students have no consistency in the terms used in distance education, and serve to confuse their understanding, as well as cause them to second guess taking an online course (Todhunter, 2013). In order to assess whether students are actually engaging in a course it is not enough to view the rate of completed assignments, as educators must be cognizant of student work habits. Monitoring student use of the course website and the length of time it is being accessed will give an indication of their non posting behaviour to determine engagement (Xie, 2013). It is this awareness on the part of the teacher to use the technology at

their disposal to monitor students, and contact those who are struggling or not working that will lead to stronger student engagement.

Chapter 3

Summary, Conclusion, Implications, and Recommendations

Summary

Distributed Learning is growing in popularity due to the fact students from around the world can take part in an educational program from their home or many other locations, without having to physically attend a classroom environment. With up to four million people taking part in online education in the United States in 2011 for example, there is an opportunity for schools and universities to diversify their student population and increase enrolment. At Fraser Valley Distance Education School (FVDES) in Chilliwack, British Columbia, four thousand students from around the province take courses annually from kindergarten to grade 12, including prison students and adult learners. The completion rates at FVDES vary from course to course; for example the grade 12 English and Biology courses having a completion rate of only 40 percent, meaning that 60 percent of students drop out of their course or do not complete. Most would see results like this as unacceptable. To achieve higher completion rates a full examination of the reasons for that is needed. It seems reasonable to assume that a greater engagement with the course content, instructors and members of the cohort are needed. In order to gain an understanding of how to create engagement in the online classroom, one must understand the different terms that exist within online education, as they are conflicting and create confusion for those wanting to take an online course. As Todhunter discovered, student are hesitant to take an online course as the perception is that there is less contact with teachers, there is more work to complete, and they will not get a full understanding of the material (Todhunter, 2013). A major Australian University came across this issue when looking to change the name of their online

program, but when polled they found students would be hesitate to attend the program because the word ‘online’ brought to their mind the connotations previously stated.

Creating a Learning Management System (LMS) that houses email, discussion, grades, and student feedback is a positive way to create student engagement, as it allows for interpersonal connection and communication between teachers and students. It must be considered as to whether this LMS advances or hinders the desire to create engagement, as an online system that does not work properly, or is not user friendly will turn students and teachers away, hindering the attempt to create engagement (Palmer & Holt, 2010). There are also several online system that are available for educators to use free of charge that can be put to use, even if the school as a whole does not use a LSM. Online blogs, Wiki’s, Google Docs, and a host of other free sources are available to communicate with students and build online communities, and when considering whether to create an in house LMS system, the use of these free systems that are already being put to use, must be weighed against the creation of a new system. If the new system is too hard to use, or does not have the same features as the free system, engagement will be hindered as these learning communities will not be used. The familiarity with an online LMS plays an important role in its success, because if students do not have prior knowledge of the program, they are less likely to embrace it (Welch & Bonnan-White, 2012).

In order to create engagement teachers must go out of their way to ensure they are connecting with students on a personal level. When interacting with a student in a Distributed Learning environment, those teachers that made personal phone calls to students, checked in on their progress, welcomed students to the course, and worked with them directly in an online setting produced higher student engagement (Velasquez et al., 2013). Equally students must be connected with one another, as students learn through interaction, so by creating discussion

boards, journal activities and group chat students will have the same ability to honestly and organically create community, just as they would in the hallways of a traditional school (Todhunter, 2013). It is through this interaction that students are engaged and report a higher level of engagement when taking an online course. These students are also more likely to contact their teachers for help, and feel like the teacher is a resource where they can find information and obtain answers. By creating this positive community in an online class, ensuring that online communication systems meets the needs of students and teachers, and making the terms of Distributed Learning clear to all users, engagement can be fostered in the online class.

Implications/Recommendations

When considering how to implement engagement through enacting change in Distributed Learning, it can be looked at from the perspectives of: district administration, school administration, and teacher leaders. These three groups play a vital role in creating the theories, policies, and procedures that govern Distributed Learning, and thus impact the experience for students, affecting their engagement. At each level these parties need to have an understanding of how their actions have a direct result on the learning, and each must listen to the other in order to create cohesion and understanding in the decision making progress. District administration must understand that the policies put in place that govern Distributed Learning must allow for the staffing numbers required to engage students, and listen to the requests and needs of the school administrators.

Equally school administration must understand the need for transparency in their data, and understand that the district requires success in student completion rates to warrant funding.

Promoting teacher collaboration is key to building excitement and teamwork in creating online courses, but equally in promoting student-teacher interaction. Allowing for the time and resources needed to create these courses and engagement must be a priority.

Finally teachers must communicate with their fellow staff members, and engage in an open and honest dialogue about their practices, sharing their experiences and interactions with students that have created positive engagement and collaboration in the online classroom. The use of Professional Learning Communities (PLC) must be established by the administration, and engaged by teachers in order to look at improve their practice through discussing teacher work, discussing student work, discussing student data, and discussing professional literature. Given the appropriate amount of time to investigate these areas, teachers can work together to help develop and sustain student engagement.

District Administration

District administration has reacted to the changing landscape of Distributed Learning as it has become more widely used and implemented. The driving force behind policies and procedures put into place has been reactionary and driven by funding. As more students began to take part in online classes, the need arose to understand if the funding model in place was feasible long term. Previously students taking an online course were funded per pupil, but this changed, as students were not necessarily fully enrolled in an online school, as they may only be taking one course. What occurred was a change in funding that meant students were going to be funded per-course, resulting in schools only getting the funding for the amount of courses that a student takes, not just for the individual attending the school.

Funding models have recently seen changes in two areas with graduated adults and middle school student being affected. Graduated adults were once given full funding from the district for taking courses to improve their education. In May 2015 this changed and graduated adults could no longer take courses for free, and a fee of $350 was implemented in Chilliwack, and up to $500 in other districts. Middle school funding in Chilliwack has changed, with a student receiving full funding for a course as long as they reside in another district. Students within district will not receive any funding for taking a single middle school course; they must take all their classes at an online school if they are to receive funding. Originally this decision was interpreted that any middle school student could take an online course, and school administration at FVDES made arrangements with the middle schools in Chilliwack to provide courses, only to have the funding procedure clarified, and funding pulled. What this goes to show is the need from a district perspective to provide clear and long term funding models those schools can rely on.

District administration must ensure that the funding models chosen are consistent and held for the long term. A year-by-year funding shift does not allow for principals to implement the type of staffing numbers, or school programs that are required to promote student engagement. This does not mean that the district needs to choose the funding model that gives the most money; it needs to choose the funding model that is sustainable for a period of time up to five years. This would allow school administration to implement changes and see if they have been effective, and make the appropriate adjustments.

From a district perspective, it makes sense to withhold full funding for a student taking an online course until it has been completed. With completion rates so low, there are tangible numbers that this funding is not producing results, and by splitting the funding it would be

further motivation for school administration to implement the techniques required to promote student engagement, and thus completion rates. Once a set funding model is put in place, giving an online school half the funding for a student upon enrolment, and half upon completion, and have this put in place for a period of five year, would give school administration the stability needed to implement change, and have a funding model they can rely on.

School Administration

As viewed previously, there needs to be clear communication as to what a school's online program consists of, due to a lack of common terms in online education. It is not enough to say 'blended learning' or 'flip classroom' as there is little to no consistency as to what these classes look like from school to school. Time needs to be taken both online and in person explaining to students the requirements, goals, and expectations of the course. This will give students a better understanding of what to expect when entering a course, and ask specific questions that should hopefully dispel some of the myths and misunderstandings around Distributed Learning. Proving early that a student will not get a lesser education because their course is online will be key to student success. In order to do this, there need to be resources that a perspective student can access in order to understand what a purely Distributed Learning course, a correspondence course, or a blended learning model consist of. A page on the school website that will break down the practice and procedures of an online course including, how to submit assignments, how to contact teachers, how to write tests, and the requirements to be successful all must be included. Much of this information is provided after a student signs up for a course, but all this information must be easily and readily accessible to any perspective student at any time. By

providing this information on a webpage that is easily accessible it will help toward curbing the confusion of terms in online education.

As has been discovered in the literature review, the more one on one support a student receives, the more likely they are to be successful. This type of open and personalized communication must also be given to perspective students who are considering enrolling in an online school, or who has already registered. By providing a parent information night for students and parents, it would allow for those local students to meet with their teachers, counsellors, and administration in order to start building a relationship, and breaking down any possible misunderstanding about the program. It is this interaction before a student begins taking a course that would help to build a connection with student and parent.

Much of the direct instruction from kindergarten to grade 9 comes from the home facilitator, who is the parent or adult supervisor who will be working with the child to provide instruction and support face-to-face. Educators are trained for at least five years before taking on the role of teacher, so expecting a home facilitator with little to no training to achieve the same results is putting the student at a disadvantage. There needs to be stronger support for those adults who will be working one on one with students, as they do not have the knowledge or understanding of how to work their way through an online course, as they are just as unfamiliar as the students. This will also allow home facilitators to become familiar with staff, and the school website. Currently at Fraser Valley Distance Education, there is an online course called Connect Ed that students must take before starting any courses, and it outlines the key types of technology that will need to be used, including how to submit assignments, send an email, and receive marked work; however, this information is not accessible once the course has been completed, and it does not give students information regarding how to structure their time,

schedule tests, or make contact with their teachers. There is no training program for Home Facilitators, as they do not have access to Connect Ed. The information in this course must be made public for both student and home facilitator to access at any time.

From an administrative level the need for student engagement must be understood and promoted from the school leadership. Administration must limit the number of students that can be enrolled in an online classroom so teachers have manageable student numbers and can spend time connecting with students as opposed to marking work. In a traditional classroom numbers are capped at 30 students, and in a semester system without a prep that would mean 120 students for a secondary course. The English 12 course for the 2014 school year hovered around 140 students which does not sound that different than in a traditional classroom, but there is continuous enrolment. The actual number of students that started the course during the calendar year was over 300. The differences between traditional school and online school must be noted, but regardless a reasonable number must be chosen to ensure student-teacher interaction is occurring. For example if the number of students in an online secondary course was set at 150 students total, it would allow for more communication. This means that teachers who teach multiple subjects need to have a total student number no larger than 150 at one time. In the case of the English 12 class there could be no other course added to that teaching load, as the one course reaches the maximum number of students. This information must be based on an average, as numbers fluctuate throughout the year. Funding is dependent on the amount of students enrolled in a course, but there must be a balance between the need for funding and the success of students. If completion rates and student engagement are going to be of importance at an online school, then this must be supported and advanced by the administration by capping student numbers.

Capping student numbers would require teachers to use the extra time to communicate directly with students by making phone calls and planning one on one tutoring session. In order to show students that they are valued and supported, time needs to be taken to acknowledge those students who have been making strong progress in a course, as well as those who are not. By setting aside one afternoon a week to send out personalized post cards, letters, or emails to those students who are successfully working through their course, or have shown improvement, will create the personal, caring connection that students value and need to be engaged. This time can also be used to send out a reminder to those students who have not accessed the course in some time. Communication with students should not be limited to this time frame, this is for special cases and communication with students needs to be a continual effort.

Collaboration between students has been a central focus of the literature review, but what can be done by the administration to promote teacher interaction? By implementing professional learning communities (PLC), the engagement between teachers can begin. A PLC is designed to promote two main purposes. "Improving the skills and knowledge of educators through collaborative study, expertise exchange, and professional dialogue, and (2) improving the educational aspirations, achievement, and attainment of students through stronger leadership and teaching" (Abbott, 2014). These groups of educators working together to improve their practice can be created informally through teachers, but with such a strong need to create engagement at FVDES; it would be imperative that this be a school wide initiative with the focus being student engagement. Organizing these groups could potentially be done by grade level or by subject, but the most effective way of organizing would be through a separation of grade levels. Elementary (K-7), middle school (8,9) and secondary (10-12) must work as teams to consider what types of engagement need to be created at their grade level. This is because the way each level is run is

vastly different, and the emotional and curricular needs vary quite heavily between these three areas.

What needs to be looked at are ways that each grade level can initiate engagement through their practice, and the time must be set-aside by administration to do this. In the past curricular meetings have been held one day a month for three hours with a variety of focus points, but lacking specific, tangible results from these groupings. What needs to be set forward is a clear direction regarding student engagement, using research, personal communication, and shared experiences to outline what techniques will be used to promote engagement. In the last three staff meetings of the year, each grade area will present what they have researched, attempted, and their success in order to prove what has been achieved, as well as provide information to other staff members that they might want to build into their courses. This information would move from grade level teams to the school as a whole, resulting in school wide communication.

Through the use of PLC's with a clear focus on student engagement, staff will begin to communicate and collaborate with a shared vision and focus that will lead to student engagement, and completion rates. Administration must provide the time necessary for teachers to work together, and balance their student numbers accordingly to allow for effective student-teacher interaction. Through the creation of web pages directly on the school website that speak to the terms of Distributed Learning, and how students can be successful in an online course, these will give students and home facilitator access to this information at any time.

Teacher Leaders

Administration can provide the time and focus of a PLC but the motivation must come from teachers to embrace them and want to improve their practice through collaboration and communication with their peers. While the focus of the PLC must be student engagement, giving teachers the ability to choose how they will research this focus will be key. Giving teachers the autonomy to investigate this focus as they wish will be important to their engagement, and provide agency in their learning. There are several ways that teachers can view the issue of engagement: discussing teacher work, discussing student work, discussing student data, and discussing professional literature (Abbott, 2014). Ideally all areas need to be investigated for the most valuable results, but allowing teacher to see which modes will work best for them will still promote tangible results. By meeting every month with a clear focus on engagement with the goal of producing practices that promote engagement, teacher will communicate and investigate with one another through their chosen research focus. Talking about their own teaching practices would be the easiest and most likely form of investigation, as individuals can rely on their own chosen and tried practices, with the hope this will lead into looking at student data and discussing professional literature. Administration needs to provide the student data to teachers so it can be investigated, as teachers cannot spend all their time compiling data, as the goal is to produce results.

The findings in this literature review highlight the need for teachers to be organized in their online courses, in order to ensure they have enough time to make contact with their students, which needs to be the priority. If engagement is going to be created, teachers cannot spend their time strictly marking assignments, even though this is a key part of the job. Students who got back timely and detailed comments on their work appreciated the effort, and reported

higher engagement, but equally giving students a say in their assessment is equally important. The marking procedures cannot be viewed as imposed or impossible to discuss, as students need self-assessment to encourage students to take responsibility for their learning, and understand the learning goals to create the development of critical thinking skills. By asking students to assess themselves and where they feel successful or require more improvement it brings in their thoughts and ideas, connecting them personally to their work (Heinrich, 2004). Making a welcome phone call when students enter a course, and checking in by sending an email or making a phone call when a student has not been active in the course must be a priority, just as making sure students have the opportunity to provide their thoughts on assignments.

In order to promote engagement immediately in an online course, implementing a student information assignment at the start of every course would allow for the communication between student and teacher to begin. If every student had to write their reasons for taking the course, their expectation, fears, and goals, it would begin a dialogue between teacher and students that would promote engagement. The information in this document could be referred to when making comments on student work, showing that the teacher has remembered something about the student, and cares about their personal goals and needs. Equally a survey of their impression of the course half way through, and at the end of a course would allow for an understanding of where a student find success in the class, and where they are struggling. Through careful examination of these results, a list of recommendations and needs would be developed to help advance online courses in building stronger engagement with their students.

Students must also play a role in their own engagement, and by making an honest effort at attempting to use the online systems available in the course is going to foster their engagement. Studies have shown that if a system is put into practice that students are not

familiar with, they will not use it, however; just because they are unfamiliar with the system does not mean familiarity can't be built over time. The school and teacher must motivate students to use the system, and make clear why it is important in their learning. By justifying the use of the system, and the positive impacts it has, an LMS can create the engagement and community that is required for success in an online course. It is this through transparent and open communication about the positive effects of a LMS that could potentially win over a sceptical student over.

Future Studies

In the future a study completed in British Columbia at a local online high school in order to gage the engagement needs of student would be of benefit. While information from Colleges and Universities from the United States and Australia give valuable information as to student engagement, every region has its own needs. Finding out what the needs of the student are around engagement at an online high school in British Columbia might not vary that much from previous studies abroad, but it would bring further relevance to the issue and highlight the needs for student engagement in this region. A study completed over several years, and following students through several grades would offer an understanding of what types of engagement students require in different types of courses, and at different grade levels.

Conclusion/Final Thoughts

Distributed Learning provides a valuable service to those students who live at a distance, cannot attend a traditional school, or wish to take an extra course on top of their current studies. The skills learned such as time management, self-management, and advocating for ones

education are key components of an online classroom, but this must be encouraged and supported through engagement. Too often an online course is seen as something a student must get through, and the full potential of the material and skill developed is lost behind a wall of impersonal communication and assignments that need to be marked. The effort to create engagement must come from a personal passion of the teacher who strives to initiate contact with students and generally wants to see them succeed.

Such low completion rates at FVDES are of great concern and building the student-teacher relationship using the online programs that are available will be key to bringing these numbers up. Knowing when a student has last logged into a course, or posted in a discussion group are key pieces of information that must be accessed and acted upon to show students that the teacher is paying attention to their work habits, but more importantly that they are there to support the student along the way. As seen in this paper a combination of user friendly and reliable online communication systems, combined with teachers who make a strong effort to connect with their students, produces the highest levels of engagement. At FVDES the online systems have been in place for enough time that both staff and students are familiar with them, so by initiating a conscious effort to engage with kids, completion rates through engagement have the possibility to improve.

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While the delivery of graduate management education via the Internet is becoming increasingly common, research on how education can be conducted effectively using the medium is still somewhat limited. To help address this paucity of research, this paper examines the effects of characteristics of the technology used to deliver web-based courses, and of "classroom" behaviours by students and instructors on student learning and satisfaction in a sample of web-based MBA courses. The study found that the behavioural characteristics tended to be stronger predictors of student learning and satisfaction. These findings suggest that while technological characteristics are important, the primary drivers of successful course experiences are the extent to which class participants emphasize and invite interaction. These findings should be both encouraging and challenging to business schools. The findings are encouraging in the sense that teaching skill may be more transferable from the classroom to the Internet than originally thought, thereby providing a potential source of advantage against emerging for-profit education providers. They are challenging because they suggest the need for faculty to develop skills using constructivist, rather than objectivist, models of education.

Keywords: Instructor Behaviours; Student Behaviours; Web-based Courses

Avramidis, E., Bayliss, P., & Burden, R. (2000). A survey into mainstream teachers ' attitudes towards the inclusion of childre ... Copyright (C) Edited by Foxit Reader. *Evaluation*, (C), 2005–2008.

Attitudes of mainstream teachers toward the inclusion of children with special needs in ordinary school were surveyed soon after the release of the Green paper. The survey was carried out in one Local education Authority in the southwest of England and the sample comprised of 81 primary and secondary teachers. The analysis revealed that teachers who have been implementing inclusive programmes, and therefore have active experience of inclusion, development in the formation of positive attitudes toward inclusion. In particular, teachers with university-based professional development appeared both to hold more positive attitudes and to be more confident in meeting the IEP requirements of students with SEN. The role that training at both pre-service and post-service levels has in the development of teachers' support for inclusion is discussed.

Keywords: IEP; Inclusion; Special Needs Education

Carnahan, B. C., & Fulton, L. (2013). Virtually Forgotten : Special Education Students in Cyber Schools. *TechTrends*, *57*(August), 46–52.

The area of online K-12 education is experiencing rapid growth, yet practice has greatly surpassed the research. This article looks to add to the field by examining special education students enrolled in the Commonwealth of Pennsylvania. There were over 2600 students in the state that were identified as special education students and enrolled in virtual schools in 2009 according to the Pennsylvania Department of Education. The population of special education students in cyber school mirrors the population of special education students in brick and mortar classrooms, thus it is important to under- stand the characteristics associated with special needs learners as current research and practices are not designed to serve this population. Understanding the characteristics of this group is fundamental for instructional design and educational practice to serve the needs of these di- verse learners.

Keywords: IEP; Inclusion; Special Needs Education

Dede, C. (1996). Emerging technologies and distributed learning. *American Journal of Distance Education*, *10*(2), 4–36. doi:10.1080/08923649609526919

The development of high performance computing and communications is creating new media, such as the World Wide Web and virtual realities. In turn, these new media enable new types of messages and experiences; for example, interpersonal interactions across network channels lead to the formation of virtual communities. The innovative kinds of pedagogy empowered by these emerging media, messages, and experiences make possible an evolution of synchronous, group, presentation-centered forms of distance education-which replicate traditional "teaching by telling" across barriers of distance and time-into an alternative instructional paradigm: distributed learning. In particular, advances in computer-supported collaborative learning, multimedia/hypermedia, and experiential simulation offer the potential to create shared "learning-through-doing environments" available anyplace, any time, on demand. This article speculates about how emerging technologies may reshape both face-to-face and distance education, delineating a three-part conceptual framework (knowledge webs, virtual communities, and shared synthetic environments) for understanding the new types of instructional messages that enable distributed learning.

Keywords: Learning Management System; Teaching by Telling; Learning Environment; Virtual Communities

Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology*, *95*(1), 148–162. doi:10.1037/0022-0663.95.1.148

Children's sense of relatedness is vital to their academic motivation from 3rd to 6th grade. Children's (n = 641) reports of relatedness predicted changes in classroom engagement over the school year and contributed over and above the effects of perceived control. Regression and cumulative risk analyses revealed that relatedness to parents, teachers, and peers each uniquely contributed to students' engagement, especially emotional engagement. Girls reported higher relatedness than boys, but relatedness to teachers was a more salient predictor of engagement for boys. Feelings of relatedness to teachers dropped from 5th to 6th grade, but the effects of relatedness on engagement were stronger for 6th graders. Discussion examines theoretical, empirical, and practical implications of relatedness as a key predictor of children's academic motivation and performance.

Keywords: Engagement; Motivation; Regression; Relatedness

Havice, P. A., Davis, T. T., Foxx, K. W., & Havice, W. L. (2010). THE IMPACT OF RICH MEDIA PRESENTATIONS ON A DISTRIBUTED Engagement and Satisfaction of Undergraduate Students. *The Quarterly Review of Distance Education*, *11*(1), 53–58.

The digital revolution has ushered in a generation shaped by the integration of emerging communication technology into everyday life, including today's traditional-aged college students. While research on how this generation utilizes technology is prevalent, research and reflection on the effective integration of technology into the learning environment is still sparse. This study attempts to fill that gap by blending distance and distributed learning research into analyzing how a distributed learning environment affects the satisfaction and engagement of traditional, face-to-face undergraduate students enrolled in a research project course.

Keywords: Engagement; Distributed Learning; Technology

Hawkins, A., Graham, C. R., & Sudweeks, R. R. (2013). Academic performance , course completion rates , and student perception of the quality and frequency of interaction in a virtual high school. *Open and Distance Learning Association of Australia*, *34*(1), 64–83.

This study examined the relationship between students' perceptions of teacher– student interaction and academic performance at an asynchronous, self-paced, state-wide virtual high school. Academic performance was measured by grade awarded and course completion. There were 2269 students who responded to an 18-item survey designed to measure student perceptions on the quality and frequency of teacher–student interaction. Quality of interaction was subdivided into three constructs representing feedback, procedural, and social interaction. A confirmatory factor analysis helped to establish the fit of the statistical model for teacher–student interaction. Hierarchical logistical regression indicates that an increase in the quality and frequency of interaction resulted in an increased likelihood of course completion but had minimal influence on grade awarded. The estimated effect for quality and frequency composite items on completion was .83 and .56 respectively. Low practical significance of student–teacher interaction on grade awarded may be the result of mastery-based teaching approaches that skew grades for the completers toward the high end.

Keywords: 12 Learning; Completion Rates; Interaction; Online; Virtual Schooling

Heinrich, E. (2004). Electronic repositories of marked student work and their contributions formative evaluation. *Educational Technology and Society*, *7*(3), 82–96. doi:10.1.1.126.3225

The educational literature shows that formative assessment is highly conducive to learning. The tasks given to students in formative assessment generally require open-ended responses that can be given, for example, in essay-type format and that are assessed by a human marker. An essential component is the formative feedback provided by the marker that needs to assist the student in recognising knowledge gaps and in formulating steps to close these gaps. The concepts of 'electronic repositories of marked student work' introduced in this article suggests an approach to support learning from formative assessment. At the core of this concept lies the realisation that the artefacts submitted by students and assessed by markers are a valuable resource. This resource should not just be used by the submitting students but should be made accessible to future students studying the same concepts. These students can learn from the artefacts and the formative feedback attached to these artefacts. Self- and peer-assessment, important concepts closely linked to formative assessment, can be integrated with the repositories to develop the students' subject knowledge, to enhance their critical thinking skills and to familiarise them with assessment procedures. This article develops the concepts of electronic repositories of marked student work. Special emphasis is put on reviewing the educational literature on formative assessment and on binding the concepts introduced into the literature findings.

Keywords: Formative Assessment; Self-Assessment; Peer-Assessment; Electronic Repositories

Hockridge, D. (2013). Challenges for educators using distance and online education to prepare students for relational professions. *Distance Education*, *34*(2), 142–160. doi:10.1080/01587919.2013.793640

There are many challenges for educators in using distance and online education to adequately prepare students for their future professions. These challenges are accentuated in disciplines that prepare people for relational professions, which require people skills and a certain maturity of character. Educators in many disciplines, including theology, have questioned the suitability of distance and online education for preparing students for relational professions. This paper describes research that investigated educators' concerns about distance and online education

in Australian theological education institutions. These concerns focus around "formation" or character development, which is considered an essential element of theological education. The study used a questionnaire and interviews to explore theological educators' understandings of formation and what educational practices can be used to encourage student formation. The coding of participant responses identified a number of categories of understandings and practices of formation. These provide a detailed and nuanced understanding of formation, which may assist educators in the development of formational learning in a variety of contexts and modes of study. It was also found that concerns about formation at a distance cluster around particular categories and practices of formation. Further exploration of these concerns and strategies for addressing them is recommended. These findings may be of interest for other disciplines, which prepare people for relational professions or place value on character development.

Keywords: Distance and Online Education; Formation; Theological Education

Johnson, S. D., & Aragon, S. R. (2003). An Instructional Strategy Framework for Online Learning Environments. *New Directions for Adult and Continuing Education*, (100), 31–43.

The rapid growth of Web-based instruction has raised many questions about the quality of online courses. This chapter presents a conceptual framework that can guide the development of online courses by providing a holistic perspective on online teaching and learning. Examples of instructional strategies that fit the framework are described. The instructional strategy framework discussed in this chapter is clearly a work in progress. Although the framework is baled on well-recognized theories of learning and represents a synthesis of ideas from multiple perspectives, it is not fully developed, nor is it all-inclusive.

Keywords: Online Learning Environments; Online Teaching; Online Education; Traditional Paradigms

Kaymak, Z., & Horzum, M. (2013). Relationship between Online Learning Readiness and Structure and Interaction of Online Learning Students. *Educational Sciences: Theory & Practice*, *13*(3), 1792–1798. doi:10.12738/estp.2013.3.1580

Current study tried to determine whether a relationship exists between readiness levels of the online learning students for online learning and the perceived structure and interaction in online learning environments. In the study, cross sectional survey model was used. The study was conducted with 320 voluntary students studying online learning post-graduate programs in Sakarya University. The participants were administered a questionnaire consisting of readiness for online learning, perceived structure and interaction in the study. The hypotheses of the research were tested with structural equation modeling. It was found at the end of the research that online learning students' readiness for online learning was positively related with their interactions in learning environments and negatively related with perceived structure. In addition, there appeared to be a negative relationship between perceived structure and interaction. In the study, it was found that readiness for online learning was important regarding the structure that affects learning results of students and interaction variables.

Keywords: Interaction; Intercultural and Personalized Knowledge; Online Learning

Lawrence, B., & Lentle-Keenan, S. (2013). Teaching beliefs and practice, institutional context, and the uptake of Web-based technology. *Distance Education*, *34*(1), 4–20. doi:10.1080/01587919.2013.770432

This research examines the relationship between teaching beliefs and practice, institutional constraints, and the uptake of Web-based technology for teaching in higher education. Semi structured interviews were conducted with six teachers at a New Zealand tertiary institution. Using inductive analysis and cultural historical activity theory,

themes in technology use were identified, as well as areas of tension and conflict in the teaching system. Four overarching influences were identified as mediating teachers' use of Web-based technology in teaching: teaching beliefs, experience and practice; perceptions of technology; technology as a teaching and learning tool; and institutional priorities and division of labour. Teaching practices were affected to varying degrees by institutional strategic priorities, workload constraints, and the learning management system provided.

Keywords: Activity Theory; Pedagogy; Teaching Beliefs; Teaching Online; Technology; Web-based Learning

M, J. L., & Jones, P. (2009). Virtual Spaces : Employing a Synchronous Online Classroom to F acilitate Student E ngagement in Online Learning. *International Review of Research in Open and Distance Learning*, *10*(3), 1–17.

This research study is a collaborative project between faculty in social foundations, special education, and instructional technology in which we analyze student data from six undergraduate and graduate courses related to the use of a virtual classroom space. Transactional distance theory (Moore & Kearsley, 1996) operates as our theoretical framework as we explore the role of a virtual classroom in distance education and analyze the ways in which a synchronous learning environment affects students' learning experiences. Elluminate Live! was the software employed in the virtual classroom. In this analysis, particular themes emerged related to dialogue, structure, and learner autonomy. In addition, students rated convenience, technical issues, and pedagogical preferences as important elements in their learning experiences. The article discusses these themes as a contribution to reducing the ―distance‖ that students experience in online learning and to developing quality distance education experiences for students in higher education.

Keywords: Distance Learning; Synchronous Online Learning; Transactional Distance Theory; Virtual

McLaughlin, J. E., Roth, M. T., Glatt, D. M., Gharkholonarehe, N., Davidson, C. a., Griffin, L. M., … Mumper, R. J. (2014). The Flipped Classroom. *Academic Medicine*, *89*(2), 236–243. doi:10.1097/ACM.0000000000000086

Recent calls for educational reform highlight ongoing concerns about the ability of current curricula to equip aspiring health care professionals with the skills for success. Whereas a wide range of proposed solutions attempt to address apparent deficiencies in current educational models, a growing body of literature consistently points to the need to rethink the traditional in-class, lecture based course model. One such proposal is the flipped classroom, in which content is offloaded for students to learn on their own, and class time is dedicated to engaging students in student-centered learning activities, like problem-based learning and inquiry-oriented strategies. In 2012, the authors flipped a required first-year pharmaceutics course at the University of North Carolina Eshelman School of Pharmacy. They offloaded all lectures to self-paced online videos and used class time to engage students in active learning exercises. In this article, the authors describe the philosophy and methodology used to redesign the Basic Pharmaceutics II course and outline the research they conducted to investigate the resulting outcomes. This article is intended to serve as a guide to instructors and educational programs seeking to develop, implement, and evaluate innovative and practical strategies to transform students' learning experience. As class attendance, students' learning, and the perceived value of this model all increased following participation in the flipped classroom, the authors conclude that this approach warrants careful consideration as educators aim to enhance learning, improve outcomes, and fully equip students to address 21st-century health care needs.

Keywords: Educational Reform; Flipped Classroom; Problem-based Learning

Moore, R. (2014). Importance of Developing Community in Distance Education Courses. *TechTrends*, *58*(April), 20–24.

The separation of student and instructor is the core characteristic of distance education (Simonson et al., 2012, p. 28), contributing to one of the biggest challenges to distance education attrition (Dueber & Misanchuk, 2001, p. 2). By the very nature of distance education, students are different locations from one another and their instructor. The instructor's challenge is figuring out how to make students feel connected and able to succeed in this new learning environment. The development of a sense of community is an effective and efficient way to help ensure the success of the distance education program and can directly address the challenge of distance education attrition. By developing a sense of community, an instructor can create an environment that is conducive to student success. This importance was demonstrated when the University of North Carolina at Chapel Hill Department of Romance Languages and Literatures (ROML) transitioned their introductory Spanish course to a hybrid model.

Keywords: Community; Distance; Education; Hybrid Online Environment; Student Perceptions;

Palmer, S., & Holt, D. (2010). Students' perceptions of the value of the elements of an online learning environment: looking back in moving forward. *Interactive Learning Environments*, *18*(2), 135–151. doi:10.1080/09539960802364592

This paper reports on a survey of how Australian undergraduate students perceive the benefits of broad study modes: face-to-face classes, web-based study, and print-based study. Two benefit types were identified through factor analysis: engagement and functionality. Respondents rated face-to-face classes highest on engagement and print-based study highest on functionality. However, they distinguished only marginally between the engagement and functionality benefits of print-based and web-based study. Two variables associated with differences in students' perceptions of study modes were attendance mode and student tenure. The findings raise questions about the learning and marketing rationales for offering web-based delivery of educational programmes at the expense of both the traditional face-to-face experience and the traditional "distance" experience in Australia using print materials.

Keywords: Online Education; Online Learning; Online Learning Environment; Satisfaction; Student Evaluation

Paul, J. A., & Cochran, J. D. (2013). KEY INTERACTIONS FOR ONLINE PROGRAMS BETWEEN FACULTY , STUDENTS , TECHNOLOGIES , AND EDUCATIONAL INSTITUTIONS A Holistic Framework. *The Quarterly Review of Distance Education*, *14*(1), 49–62.

Online education is becoming increasingly popular among both traditional and non-traditional students. Stu- dents gravitate to the flexibility of online courses, which allows them to work around jobs, family, and other responsibilities. While online program growth continues, these programs present several new challenges to educational institutions and their successful implementation requires a clear understanding of several factors that are at the root of these challenges. We propose 2 intuitive relational diagrams featuring roles and interaction among faculty, student, technology, and institution that could serve as a conceptual framework for developing successful online education programs.

Keywords: Online Courses; Online Education; Interaction

Remedios, R., & Richardson, J. T. E. (2013). Achievement goals and approaches to studying: evidence from adult learners in distance education. *Distance Education*, *34*(3), 271–289. doi:10.1080/01587919.2013.835776

Achievement goals predict learning in children and young adults, but it is unclear whether they apply to older adults and how they are related to approaches to studying. An online survey examined achievement goals, approaches to studying and academic attainment in distance learners. The Achievement Goals Questionnaire-Revised and the Approaches to Learning and Studying Inventory were given to 2000 students, yielding 1211 responses. The findings confirmed the 2 × 2 model of mastery-approach, mastery-avoidance, per- formance-approach and performance-avoidance goals in adult distance learners. Mastery goals were positively associated with deep and strategic approaches to studying but negatively associated with a surface approach. Performance goals showed only weak associations with approaches to studying. Performance- approach goals were positively related to attainment, performance-avoidance goals were negatively related to attainment, but mastery goals were unrelated to attainment. The relationship between achievement goals and attainment was partly but not wholly mediated by approaches to studying.

Keywords: Academic Attainment; Achievement Goals; Adult Learners; Distance Education

Reyes, M. R., Brackett, M. a., Rivers, S. E., White, M., & Salovey, P. (2012). Classroom emotional climate, student engagement, and academic achievement. *Journal of Educational Psychology*, *104*(3), 700–712. doi:10.1037/a0027268

The emotional connections students foster in their classrooms are likely to impact their success in school. Using a multi-method, multilevel approach, this study examined the link between classroom emotional climate and academic achievement, including the role of student engagement as a mediator. Data were collected from 63 fifth- and sixth-grade classrooms (N = 1,399 students) and included classroom observations, student reports, and report card grades. As predicted, multilevel mediation analyses showed that the positive relationship between classroom emotional climate and grades was mediated by engagement, while controlling for teacher characteristics and observations of both the organizational and instructional climates of the classrooms. Effects were robust across grade level and student gender. The discussion highlights the role of classroom-based, emotion-related interactions to promote academic achievement.

Keywords: Academic Achievement; Emotional Climate; Engagement; Organizational Climate

Ryan, a. M., & Patrick, H. (2001). The Classroom Social Environment and Changes in Adolescents' Motivation and Engagement During Middle School. *American Educational Research Journal*, *38*(2), 437–460. doi:10.3102/00028312038002437

The authors investigated how students' (N = 233) perceptions of the social environment of their eighth-grade classroom related to changes in motivation and engagement when they moved from seventh to eighth grade. In general, prior motivation and engagement were strong predictors of subsequent motivation and engagement, whereas gender, race, and prior achievement were not related to changes in motivation or engagement. A higher-order classroom social environment factor accounted for significant changes in all motivation and engagement outcomes. Four distinct dimensions of the social environment were differentially important in explaining changes in various indices of motivation and engagement. In general, however, students' perceptions of teacher support, and the teacher as promoting interaction and mutual respect were related to positive changes in their motivation and engagement. Students' perceptions of the teacher as promoting performance goals were related to negative changes in student motivation and engagement. Implications for recent educational reform initiatives were also discussed.

Keywords: Engagement; Motivation; Social Environment; Social Environment Factor

Selma, B., Vonderwell, K., & Boboc, M. (2008). Promoting Formative Assessment in Online Teaching and Learning. *TechTrends*, *57*(4), 22–28.

Using effective assessment techniques can improve an instructor's understanding of student needs and support learner-centered class- rooms. Evaluating student learning takes on a new meaning in online classroom environment where students and instructors do not share physical proximity. According to Garrison (2011), the assessment strategies used to deter- mine student learning send "a very strong signal as to what is important and how they should approach learning" (p. 14). This paper describes formative assessment techniques used by two instructors in their respective online courses at the graduate level. The authors give suggestions in designing assessment activities to improve online teaching and learning by making use of student learning data.

Keywords: Assessment; Formative Assessment; Assessment for Learning; Online Learning

Todhunter, B. (2013). REFLECTION LOL — limitations of online learning — are we selling the open and distance education message short ? *Open and Distance Learning Association of Australia*, *34*(2), 232–252.

The thesis of this paper is that the open and distance education sector is based on a framework of terminology that is typologically inconsistent and which lacks clarity, and open and distance education teaching and learning models are examined to explore these concerns. The findings of this analysis are then used to assist in the articulation of a strategic direction for a regional dual-mode Australian university and to identify appropriate branding for its off-campus model of education. Concerns are raised as to the appropriateness of an "online" message to prospective students given possible adverse perceptions of a learning environment that may not align with the needs and expectations of distance learners.

Keywords: Blended Learning; Distance Education; Flexible Learning; Online Education

Velasquez, A., Graham, C. R., & Osguthorpe, R. (2013). Caring in a technology-mediated online high school context. *Distance Education*, *34*(1), 97–118. doi:10.1080/01587919.2013.770435

The objective of this study was to describe how caring is experienced in the technology-mediated context of the Open High School in Utah, an online charter high school. Two female teachers, two male students, and two female students were interviewed three times over 9 months regarding their experience of caring teacher–student interactions. Data were analyzed using interpretative phenomenoogical analysis (IPA). Discovered themes were then organized into three superordinate themes: engrossment, motivational displacement, and reciprocity. Results suggest not only that caring interactions are possible in the online context, but also that specific caring pedagogies can strengthen the teacher–student relationship online. Additionally, evidence indicates that student reactions play an important role in caring in the online medium.

Keywords: Caring Pedagogy; Engrossment; Motivational Displacement; Reciprocity

Welch, B. K., & Bonnan-White, J. (2012). Twittering to increase student engagement in the university classroom. *Knowledge Management and E-Learning*, *4*(3), 325–345.

In this paper, we explored the research question: Does Twitter in a large-lecture format university course produced a difference in levels of self reported student engagement? To do so, we utilize a quasi-experimental design testing the effect of Twitter on student engagement in introductory sociology and anthropology courses. Our hypotheses predicted that students using Twitter would report higher levels of five forms of student engagement (academic, intellectual, peer, and beyond-class engagement, along with an overall engagement variable). While peer-reviewed literature and others' anecdotal reporting would lead us to expect a positive result, we found no significant difference in any form of engagement when Twitter was part of the course than when it was not. In fact, we found that students enrolled in the control (non Twitter) condition perceived significantly higher levels of academic engagement then those in the experimental (used Twitter) condition. We also included a second set of hypothesis predicting that students who reported enjoying using Twitter would perceive of themselves as more engaged than those who did not enjoy Twitter. These hypotheses were supported across all forms of engagement. We report these findings and utilize comments from an open-ended questionnaire to explore potential reasons accounting

Keywords: Generation Net; Social Media; Student Engagement; Twitter

Wilson, D., & Allen, D. (2011). Success rates of online versus traditional college students. *Research in Higher Education Journal*, *14*, 1–9. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=ehh&AN=70547715&site=ehost-live

Are students setting themselves up for failure by taking online courses? Should students be restricted from taking online courses if they have not reached a certain GPA? Should students who fail or withdraw from an online course be required to take to traditional courses for at least one semester? At one Historically Black College or University (HBCU) there seemed to be a marked difference in the success of students taking online courses versus students taking face-to-face courses. Online students seemed to have a higher withdrawal rate, failure rate and seemed to have more trouble completing assignments by the deadline, if at all. Therefore, in the spring 2010 semester data were gathered from four management courses, two online and two face-to-face, across two different subjects, with different professors and different students to see if there was any notable difference in online achievement versus face-to-face achievement and if there was a difference in achievement why were online students performing so poorly as compared to face-to-face students.

Keywords: College Graduates; College Students; Face-to-Face; Internet Education; Learning Online

Xie, K. (2013). What do the numbers say? The influence of motivation and peer feedback on students' behaviour in online discussions. *British Journal of Educational Technology*, *44*(2), 288–301. doi:10.1111/j.1467-8535.2012.01291.x

Students' non-posting behaviour in online discussions is often neglected in educational research. However, it can be a potential indicator of student learning. This study examined the relationships between motivation, peer feedback and students' posting and non-posting behaviours in online discussions in a distance learning class. Fifty-seven college students participated in collaborative learning activities through online discussions. Their posting and non-posting behavioural data were tracked automatically in the discussion system. Results show that students spent a significant amount of time participating in non-posting activities. Motivation and peer feedback predicted both posting and non-posting behaviours in online discussions.

Keywords: Motivation; Non-Posting Behaviour; Peer Feedback; Posting Behaviour