Electronic Media: A Motivational Strategy for Student Success

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Abstract

Motivation, engagement, goal attainment and effective interaction are essential components for college students to be successful in the online educational environment. The popularity and influx of electronic media applications has allowed educators the opportunity to incorporate social media (Facebook, Twitter), and volitional messages (Simple Truths, Animoto) in order to enhance the online student learning experience. As a result, student-teacher interaction can be more personal, satisfying, and relevant to students' efforts in meeting their academic needs. Research has shown that students who are motivated, engaged, and interactive are more likely to be successful in an online classroom. However, exactly how motivational strategies work and which specific ones are effective is still an area of uncertainty. This report presents a review of recent literature and trends in order to determine the impact of various electronic media as a motivational strategy geared towards promoting student success in undergraduate online college courses. The researchers for this study will review various targeted electronic media applications as motivational strategies based on Keller's ARCS Motivational Model (Attention, Relevance, Confidence and Satisfaction) and volition in an online environment and how these strategies can impact student success. Kuhl (1987) added the fifth component, volition, to the integrated theory. Volition or self-regulatory strategies are used by students to overcome obstacles that may impede success attainment. Kuhl defined volition as a "mediating factor that energizes the maintenance and enactment of intended actions" (1987, p. 90).

Introduction

Although measuring student success has been associated with an array of learning strategies, the relationship between specific targeted electronic media sources as motivational teaching strategies and student success remains unclear, especially among online college students (Huett, Moller, Young, Bray, & Huett, 2008). With the explosion of electronic media and social networking, it seems like a natural vehicle to incorporate these communication sources into the college curriculum. The Higher Education Research Institute (HERI) reported, "94% of first year college students use social networking daily" (2007, p. 1). In 2010, The Pew Institute researchers asked 2, 257 males and females if they used Twitter on a regular basis. Of the group, 14% of individuals between ages 18-29 reported using Twitter, and 7% of adults between 30-49 use the social networking site (Lenhart, Purcell, Smith & Zickuhr, 2010). Clearly, educators are faced with how they can use some of these electronic media sources to enhance the classroom experience. Thus far, no one model has been identified that integrates the many factors contributing to student motivation and success.

Purpose of the Study

This report presents a review of recent literature and trends in order to determine the impact of various electronic media as a motivational strategy geared towards promoting student success in undergraduate online college courses. Comparing targeted electronic media sources (Animoto, Simple Truths, Twitter, Facebook) as possible motivational strategies on student success can provide greater insight in developing best practices for success in the online college environment.

Literature Review

The researchers will review the available literature to explore how targeted electronic media sources can be used to promote student success in the online classroom. The review will be divided into three sections. The first part will review the various models of motivation, the second half will review Keller's ARCS Model of Motivation, and the third section will examine how electronic media sources are currently being used in the classroom.

Intrinsic Motivation

Motivation is the drive to complete a task. Research has focused primarily on two types of motivation: intrinsic and extrinsic. Ryan and Deci (2000a) defined intrinsic motivation as "doing something because it is inherently interesting or enjoyable" (p. 55). Intrinsic motivation is innate in human beings, but the level of intrinsic motivation differs depending on the task at hand. Some people are highly motivated for one activity because they enjoy doing it, but have very low intrinsic motivation to do another activity because they dislike it. This is in stark contrast to extrinsic motivation, which focuses on external rewards or praise. While intrinsic motivation comes from within a person, extrinsic motivation is contingent upon outside influences. In education, intrinsic motivation is based upon the internal drive for students to complete their work, and can be diminished by extrinsic motivators. While extrinsic motivators are influential for some students, research has shown that "Rewards can at times undermine rather than enhance self-motivation, curiosity, interest, and persistence at learning tasks" (Deci, Koestner, & Ryan, 2001, p. 1). Brownlow and Reasinger (2000) noted that "Motivation toward academic endeavors may be unstable because of the dependence on external rewards (such as grades or praise) for the work" (p. 18).

There is no doubt that intrinsic motivation is critically important to student success. While some external praise or rewards may encourage students along the way, the internal desire to learn and master concepts will propel students as they move from one course to the next, on their way toward successful completion of a degree program. Shroff, Vogel, Coombes and Lee (2007) suggested that technology delivered education makes intrinsic motivation more important, and "Students wishing to stay engaged (and institutions providing education) need to increasingly rely upon intrinsic motivation on the part of the students" (p. 241). However, it is not always easy to know which students are intrinsically motivated, or how one can impact the intrinsic motivation of a student. According to Martens, Gulikers and Bastiaens (2004), it is "unclear what correlates with intrinsic motivation and what causes intrinsic motivation or results from intrinsic motivation" (p. 369). Furthermore, students in distance education programs are at risk to lose intrinsic motivation if their sense of community (relatedness) is not sufficient, and may eventually leave their program (Rovai & Lucking, 2003, p. 5). Therefore, it is important for instructors and course designers to structure online learning in such a way as to foster intrinsic motivation in each student.

Extrinsic Motivation

The focus on extrinsic motivation is equally important to student learning as intrinsic motivation. According to Ryan and Deci (2000a), "Extrinsic motivation is a construct that pertains whenever an activity is done in order to attain some separable outcome" (p. 60). Ryan and Deci (2000a) identified the following four categories that detail the validity of extrinsic motivation: External regulations are when a student's behavior is to meet an outside expectation or to attain a reward that is contingent on completing a task. Introjection regulation represents the students that are pressured into or feel guilty to complete a task. They may also be attempting to gain pride. Putting it simply, it would be 'regulation by contingent self-esteem.' Identification regulation reflects the importance of the task and how it relates personally. The personal implication motivates the student to accept the regulation specific to them. The final extrinsic motivation is integrated regulation. Integrated regulation requires that students first know their own identification regulation. This would require "self-examination and bringing new regulations into congruence with one's other values and needs. The more one internalizes the reasons for an action and assimilates them to the self, the more one's extrinsically motivated actions become self-determined" (p. 61-62).

Crow and Small (2011) explained that the relevance of an award can make a difference on whether the motivation will be temporary or permanent. As an example, students who receive

tangible rewards for outstanding reading performance, such as "a bookmark, a book of their choice, a customized booklist," may be permanently or internally motivated (Crow & Small, 2011, p. 2). Conversely, if the reward has no relevance, such as extra free time, the students' motivation may be temporary rather than permanent. According to Small (2009), the end result of offering a student a non-relevant reward for temporary motivation may actually de-motivate that student who may have originally been intrinsically motivated for the task itself.

There are definitely benefits and negative aspects to both motivational techniques. Lei (2010) lists (a) receiving external rewards or reinforcements, (b) learning for recognition, (c) learning for high grades, (d) competition in learning, (e) competition for tangible rewards, (f) learning compliance, (g) social reasons for learning, and (h) high performance goals as positive benefits to extrinsic motivation (p. 160). Lei (2010) follows with a list (a) exert minimal effort needed to complete tasks, (b) may stop an activity when reinforcement ceases, (c) may slow down an activity when reinforcement is delayed, (d) students are motivated for the wrong reasons, (e) low self-esteem, (f) poor relationship quality with peers and instructors, (g) high anxiety and depression, and (h) do not guarantee personal growth, enrichment, and fulfillment as possible drawbacks to extrinsic motivation (p. 160). It is up to the instructor to offer both intrinsic and extrinsic motivation techniques when appropriate. The learning environment is complex as the learner may require different levels or degrees of one or both as they move through their educational degree.

Self-Determination Theory

Often considered a macro theory of human motivation and attributed to the work of Edward L. Deci and Richard M. Ryan, self-determination theory (SDT) categorizes motivation into autonomous and controlled types and clearly identifies the psychological needs of autonomy, competency and relatedness as critical catalysts in determining motivational levels (Deci & Ryan, 1985, 2008; Ryan & Deci, 2000b). Learning environments that sustain high levels of autonomous motivation and establish conditions that support autonomy, competency and relatedness tend to increase student motivation levels. Alternatively, student motivation levels tend to decrease in learning environments that perpetuate high levels of controlled motivation and fail to support the three basic psychological needs (Deci & Ryan, 1985, 2008; Ryan & Deci, 2000b). In distance education programs, just as in more traditional educational settings, classroom instructors and support personnel play vital roles in determining which type of motivation, autonomous or controlled, prevails and whether or not students feel autonomous, competent and related (Ryan & Deci, 2000b; Schuetz, 2008).

According to Ryan and Deci (2000b), "Strong links between intrinsic motivation and satisfaction of the needs for autonomy and competence have been clearly demonstrated" (p. 71). Learning environments that are highly controlled and rigid tend to stifle feelings of autonomy, resulting in reduced motivation levels. In contrast, environments that promote independent thinking, personal responsibility and self-discovery enable this need to flourish, resulting in higher motivation levels. Additionally, constructive comments, positive reinforcement and respectful communication all serve to encourage feelings of competence and enhance motivational levels (Ryan & Deci, 2000b). Although not as critical or as easy to demonstrate as autonomy and competence, Ryan and Deci (2000b) also noted that relatedness is an important component of self-determined motivation. Learning environments that leave students feeling isolated, unsupported and disconnected negatively impact motivation levels; while environments that promote feelings of security and connection positively impact motivation.

SDT theory further classifies motivation into autonomous and controlled types. According to Vansteenkiste, Lens, and Deci (2006), "Autonomous motivation involves the experience of volition and choice, whereas controlled motivation involves the experience of being pressured or coerced" (p. 19). Autonomous motivation includes both intrinsic motivation and what Vansteenkiste, Lens, and Deci (2006) refer to as "well-internalized forms of extrinsic motivation" (p. 19). According to Ryan and Deci (2000b; Deci & Ryan, 2008), intrinsic forces include those items that individuals personally embrace and see as critical to their personal sense of self. An extrinsic force can become internalized (identified regulation or integrated regulation) once individuals personally embrace the force and sees it as something valuable and vital to their sense of self. Controlled motivation, conversely, includes external motivation (external regulation) that has not been internalized or only partially internalized (introjected regulation). Partially internalized forces are those that individuals only adhere to because they prevent feelings of guilt or shame; individuals feel no other personal connection or value to their sense of self.

Vallerand, Pelletier and Koestner (2008) concluded that "The most positive outcomes are derived from the self-determined types of motivation (i.e., intrinsic motivation, integrated and identified regulations), while the less self-determined forms of motivation (introjected and external regulation) are either unrelated out negatively related to adaptive outcomes" (p. 259). A critical focus for distance educators and educational institutions, therefore, should be on how to promote self-determined types of motivation by focusing on ways in which they can design learning environments and promote facilitation practices that encourage autonomous motivation (self-determined motivation) and conditions in which autonomy, competence and relatedness all flourish (Ryan & Deci, 2000b; Vansteenkiste, Lens, & Deci 2006; Schuetz, 2008).

Kellar's ARCS Model of Motivation

Most of the studies on motivation and student success do not integrate theories, but focus on only one or two disparate but related models. As Keller asserts, (2010), a need to integrate theories is the only way to understand the many factors that contribute to student success and design a study that fulfills this need. This study is exploratory in nature and will focus on five factors that can impact learning and success in the online classroom using targeted specific electronic media sources. As ChanLin notes, "Motivational factors are those that are prominently anchored in the cognitive engagement and learner-control aspect of the learning process" (2009, p. 92). This idea is in alignment with the ARCS model. The researchers of this study will explore which specific targeted electronic motivational strategies help students achieve success in the online classroom. In 2002, researchers concluded that "Only 6 of 801 studies focused on motivational concerns for online learners" (Visser, Plomp, Arimault, & Kuiper, p. 95). A need exists to identify which specific factors may help motivate students in the online environment so that specific targeted electronic media sources can be included in developing curricula. One model that repeatedly appears in the literature on motivation in online learning is Keller's ARCS (Attention, Relevance, Confidence, and Satisfaction) Motivational Model (ChanLin, 2009; Chang, & Lehman, 2002; Keller, 1987) with volition added by Kuhl. Volition or self-regulatory strategies can be used to overcome obstacles that may impede student success. Although Keller has since expanded on the well-established model, for the purposes of this research, the first model will be used with volition added as the fifth motivational element. The ARCS model of motivation is a well-established and validated theory (Astleitner & Hufnagl, 2003; Means, House, 2003; Jonassen, & Dwyer, 1997; Naime-Diffenbach, 1991; Small & Gluck, 1994, Visser & Keller, 1990) that synthesizes the motivational constructs into four categories. The fifth, volition, (Kuhl, 1987) will be added to identify any self-regulatory strategies used to overcome challenges.

Keeping student's *attention* (A) is integral for educators in the online environment if they hope to engage students. This may be enhanced by consistent engagement through the use of various electronic media. Making the material *relevant* (R) to student's lives will help students apply what they are learning in practice. Many online learners are adults, working full-time jobs. Time is limited and demands are high. Educators can help build *self-confidence* (C) which mediates motivation, thus students can build personal responsibility for learning outcomes. Students can remain engaged while educators demonstrate the new learning relates to their present and future goals. Student *satisfaction* (S) can be attained and cultivated by students adopting new learning strategies and hence, better manage intrinsic and extrinsic motivation through the use of electronic media sources such as Facebook, Twitter, and Animoto. When students have a sense of engagement, identify the material as relevant, have confidence in their abilities, and feel satisfied that the college experience is worthwhile, motivation can be maintained through a combination of intrinsic and extrinsic sources. Volition or self-regulatory strategies can be used to overcome obstacles that may impede any of the first four motivational elements for success attainment.

Another model often cited in the literature is Bandura's Self-Efficacy theory (Bandura, 1987). The author stated that self-efficacy is integral to motivation. Fostering and maintaining engagement and motivation through the use of electronic media is one possible strategy; given the popularity and proliferation of electronic and social media. Student self-efficacy and motivation are necessary if educators hope to maintain engagement and provide an enhanced educational experience. However, researchers must consider other situational factors such as time constraints, physical environment and self-regulatory efforts. In one study, Puzziferro found that "Online technologies self-efficacy scores were not correlated with student performance but time and study environment, and effort regulation were" (2008, p. 72). Self-efficacy is predicated on student's perception that they can persist at achieving e tasks and goals that affect motivation. Self-regulatory efforts refer to the student's strategy to manage situational variables which affect motivation. Both Kuhl and Keller identified volitional strategies as necessary if students are to overcome mediating variables by managing life challenges that can interfere with learning while attending college.

Comparing and identifying electronic media sources as motivational strategies that promote student success can provide greater insight in developing best practices and improving retention in the online college environment. According to Puzziferro (2009), "Students who preferred online learning reported higher general self-efficacy than students who enrolled because of course availability" (p 73), but the challenge remains for increasing and sustaining motivation. Helping students maintain self-efficacy and motivation may be enhanced by various electronic media sources. In a study of 128 elite youth soccer players, Jonker, Elferink-Gemser, Toering, Lyons, and Visscher (2010) asserted that effort regulation was significant in student success. Athletes, aged 12-16 years, were compared with 164 age-matched controls (typical students). Results demonstrated that the elite players reported an increased use of self-regulatory skills, in particular self-monitoring, evaluation, reflection, and effort. This suggests that the relatively stronger self-regulatory skills may be essential for high performance at in sport competition and academia (p. 1605). In this case, intrinsic motivational factors were key.

In another study, Junco, Heiberger and Loken (2010) found that using Twitter in the college classroom increased engagement and higher grades, demonstrating that social electronic media has the potential to enhance active participation of student and instructor. They invited 125 undergraduates to participate in the study; 70 experimental, in the 55 control group. The researchers measured engagement using the National Survey of Student Engagement, and used content analyses to determine Twitter exchanges. Kim and Keller measured the effects of email motivational messages on student success; researchers demonstrated that affect and persistence were positively enhanced (Kim & Keller, 2008).

Electronic Media Sources

The online classroom is constantly changing due to evolving technology, and part of that change involves the use of electronic media sources. Social media has been around for years in various forms, but was recently been defined by Kaplan and Haenlein (2010) as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content" (p. 61). According to Shu-Chuan and Yoojung (2011), "Social media encompass a variety of online information-sharing formats including social networking sites (SNSs) (e.g. Facebook, MySpace and Friendster), creativity works-sharing sites (e.g. YouTube and Flickr), collaborative websites (e.g. Wikipedia) and microblogging sites (e.g. Twitter)" (p. 48).
Some examples of the social media that may be used in the online classroom are:

- Twitter (www.twitter.com) - Microblogging
- Facebook (www.facebook.com) - Social networking
- Simple Truths (www.simpletruths.com) - Creativity works-sharing
- Animoto (www.animoto.com) - Creativity works-sharing

Twitter is described as,

> Twitter is a service for friends, family, and co–workers to communicate and stay connected through the exchange of quick, frequent messages. People write short updates, often called "tweets" of 140 characters or fewer. These messages are posted to your profile or your blog, sent to your followers, and are searchable on Twitter search (Twitter, 2011).

When a faculty member uses Twitter to communicate with students, they may view these updates on their computer, cell phone, or tablet. Students following an instructor on Facebook may also see tweets if the Facebook account has been linked to Twitter.

Facebook is a social networking site that allows users to connect with others (friends, family, colleagues, classmates,) on a regular basis. As suggested on the Facebook site, "Millions of people use Facebook every day to keep up with friends, upload an unlimited number of photos, share links and videos, and learn more about the people they meet" (Facebook, 2011). Many students log in and spend time on Facebook, so this gives instructors an opportunity to connect with their students where they are on a regular basis. While they may only log into the online classroom four days a week, they may check Facebook daily.

An instructor can create a Facebook page and provide it to students who choose to "friend" the instructor. Then, the instructor can use Facebook to communicate important reminders (such as assignment deadlines) and updates (such as notifications that grading is complete), and post additional resources when a student does not understand a certain concept. For example, the instructor could post a video, website link, or article to reinforce the concept being taught. This also allows students to ask questions on the instructor's Facebook page and share their ideas or reasoning. Additionally, there is "an emerging interest in sharing academic achievements through social sites" (Yan, 2008, p. 27). In the long run, this can result in a sense of community among students from different sections and classes, and perhaps at different points in their degree program.

It is important for educators to understand their students' needs and preferred learning styles. While some may do very well with traditional learning methods, others may prefer to engage in social networking as a part of the learning process. It is especially important to be aware of trends that impact the way that students learn. The Pew Internet and American Life Project conducts surveys related to Internet and mobile device usage. According to a recent survey, "In August 2011, 65% of adult Internet users said they use a social networking site like MySpace, Facebook, or LinkedIn, an increase from 61% a year prior" (Madden & Zickuhr, 2011, p. 2). They also found that 83% of Internet users aged 18-29, and 70% of Internet users aged 30-49 use social networking sites (Madden & Zickuhr, 2011, p. 4). With such a large percentage of adult Internet users using social networking sites, it is important for instructors to learn how to leverage these sites to motivate and encourage students in the online classroom.

Simple Truths are short movies that are based on inspirational stories. They are available online and can be sent directly to students via email or classroom announcement. Students can access them by clicking on the hyperlink, which takes them directly to the movie. According to the Simple Truths website, "Today, more than 75,000 people each day around the world are watching an inspirational movie from Simple Truths" (Simple Truths, 2011). Each story is motivational in nature, so an instructor can share the story in an attempt to encourage students to make a difference. For example, the instructor may share a link to a story about goals, providing excellent service, or having a positive attitude.

Animoto is a user-friendly website that facilitates the creation of videos from pictures, PowerPoint slides, text and music. The service is free and easily shared through a hyperlink. Instructors can create Animoto videos to share with students via email or announcements, or post to Facebook or Twitter. The initial time to create a video varies depending on its length, and the videos can be used in future courses.

Keeping students engaged can be difficult, especially in an online environment. There is not one electronic media source that meets the needs of all students, so it is important to explore the possibilities and determine which practices have the most influence on students. Instructors should keep in mind that students may have varying levels of technological expertise, so one student may benefit greatly from interacting on Facebook and Twitter, while another may be motivated by the use of inspirational videos.

Conclusion

Identifying targeted electronic media sources (Animoto, Simple Truths, Twitter, Facebook) as possible motivational strategies on student success can provide greater insight in developing best practices for success in the online college environment. With the proliferation of social networking sources, students in the online environment can use them to stay motivated and on target as they work toward academic goals. It is especially important to be aware of trends that impact the way that students learn, based on research in the field of motivation and learning. Although research has shown that motivated students are more engaged and interactive, specific targeted strategies using electronic social media, have been limited. This exploratory study found that the Keller's ARCS Model of Motivation was useful in identifying factors that could be useful for students in the online environment. In addition, Ryan and Deci's motivation research demonstrates the relationship between student success and intrinsic and extrinsic motivation.

The authors found that targeted electronic media sources can be an asset to student engagement, to help maintain motivation in the online environment. As Yan has noted, "an emerging interest in sharing academic achievements through social sites" (2008, p. 27) has begun and the momentum for social networking is well documented.This literature review is a preliminary step that will provide direction for further research in motivation, electronic media and student success in the online environment.

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