Predicting online learning success: Applying the situational theory of publics to the virtual classroom

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\section*{A B S T R A C T}

Following the trend of increased interest by students to take online courses and by institutions to offer them, scholars have taken many different approaches to understand what makes one student successful in online learning while another may fail. This study proposes that using the situational theory of publics will provide a better understanding of online learning success. The situational theory of publics states that an individual’s ability to recognize the value of a situation and the desire and ability to remove obstacles in that situation will lead to greater involvement in that situation. Results from a survey of students ($n = 182$) who completed an online "Introduction to Public Relations" course shows that awareness of course concepts and recognition that the field was important for their post-college careers and that the students’ abilities to overcome course and technical constraints significantly impacted students’ information processing abilities, which lead to greater involvement in the class and greater exam scores. The implications of the findings are discussed to better inform online instructors about methods to increase awareness and involvement in the course and reduce constraints to participation.

\section*{1. Introduction}

Distance education and online course offerings have been and will continue to be on an exponential upward trend (Allen & Seaman, 2007; 2005). In the 2006–2007 academic year the National Center for Education Statistics reported that $89\%$ of public, four-year institutions provided students with online learning opportunities. The US Department of Education concluded that students perform on average in online learning environments as well as in face-to-face environments. The Sloan Consortium reported that approximately $5.6$ million students from $2500$ institutions were enrolled in at least one online course in the 2009 fall semester, representing a $23\%$ increase in the number of online enrollments as opposed to the $2\%$ overall growth within higher education (Sloan Consortium, 2010).

Students are also looking for programs that meet their needs with very full lives and time-dependent jobs and family responsibilities. Many students cannot afford to take time away from their jobs or supporting their family to go to a brick and mortar classroom (Conrad & Donaldson, 2004). Online programs offer the flexibility that students are looking for while maintaining the universities’ academic commitment.

The expansion of online programs spans across disciplinary lines and includes programs within top schools and colleges of journalism and mass communications. The Accrediting Council on Education in Journalism and Mass Communications (ACEJMC) has deemed that two online journalism and mass communication programs have programs worthy of its accreditation. The University of Memphis now offers both undergraduate and graduate degrees in journalism via synchronous instruction, and the University of Missouri has developed a graduate degree in journalism both of which are delivered primarily through asynchronous communication (Harris-Gershon, 2010). It is expected that additional online programs will be developed and launched based on recent research into student enrollment in similar disciplinary programs (Sloan Consortium, 2010).

With the increase in online education, a growing conversation has been occurring about how to best meet the needs of online students as well as practices that can predict their success in online courses. A multitude of scholars have proposed new scales for determining online
learning success as well as adapting existing traditional classroom learning success scales to the online environment (Lin, 2007; Fleece, 2001; Wang, Wang, & Shee, 2007). However, this paper proposes that understanding student success in the virtual classroom can be defined more clearly by using public relations’ situational theory of publics as a framework for the study. The situational theory of publics states that individuals can be classified into different groupings based on their level of awareness about a particular topic and the extent to which they do something about the topic, whether that be inaction, seeking additional information, or removing obstacles preventing them from becoming more involved.

Although this theory may have been devised for strategic communication situations, it is applicable to online learning given that students’ awareness of various topics differs as do the actions they engage in to excel in the online learning environment. Though the correlation between a student’s academic performance and the four resulting public types is not perfect, the literature demonstrates that an argument can be made for using a student’s involvement in a class (Al-Qirim, 2011; Beauchamp & Kennewell, 2010), awareness of the class topic (Shih, Feng, & Tsaì, 2008), and overcoming constraints to participation to predict their classroom success (Hamuy & Galaz, 2010; Lopez, 2010). This study posits that student success in online courses can be predicted using the situational theory of publics.

2. Literature review

Online learning or e-learning grew out of the distance education tradition. Distance education involves “various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which, nevertheless, benefit from the planning, guidance and tuition of a tutorial organization” (Holmberg, 1986, p. 26). Distance education has evolved on the sidelines of universities and is often seen more as an extension rather than a central component to an institution’s academic mission. While its placement in the university has shifted and its prominence in academia is growing (Feenberg, 1999), the roots of online learning can still be seen in ongoing debates about how to authenticate courses delivered outside the traditional classroom.

Evolving from the initial distance education paradigm, online learning primarily began as an asynchronous activity (National Center for Education Statistics, 2008) including posting responses on discussion boards (Vrasidas & Stock-Mclissac, 1999), consulting course websites, and uploading course assignments (Conrad & Donaldson, 2004). Online learning is formally defined as “instruction through a connection to a computer system at a venue distant from the learner’s personal computer” (Larreamendy-Joerns & Leinhardt, 2006, p. 568). Means, Toyama, Murphy, Bakia, and Jones (2009) note that online learning “encompasses earlier technologies such as correspondence courses, educational television and videoconferencing” (p. xi). With advancements in technology and Web 2.0 tools specifically, synchronous opportunities are now available for online instructors and students (Walker, 2007). Instructors are now looking to Web 2.0 technologies to help facilitate traditionally asynchronous activities (Maloney, 2007) as well as using these technologies for online instruction (Collis & Moonen, 2008).

When viewed as a shift from asynchronous to synchronous, online learning can be situated as a compelling alternative to the face-to-face classroom. Increased scholarly attention and strong online learning results have caused online learning and classroom management to come full circle to impact not only what is taught but also how it is taught (Dede, 2008). Instructors are exploring how emerging technologies are changing the landscape of teaching and learning in higher education (Beldarrain, 2006). One positive trend is the growing acceptance of open source learning management systems. Embracing learning management systems on the whole presents other challenges including how online courses are structured and in turn shape pedagogy (Dalsgaard, 2006). The use of wikis, blogs, RSS, and podcasting (common Web 2.0 technologies) in the classroom were once incomprehensible but have now become commonplace. Such tools, while still asynchronous, represent a marked departure from traditional conceptual understandings of knowledge, information, and media (Dede, 2008). With the emergence and availability of virtual worlds such as SecondLife, instructors are now exploring how these new technologies might assist in lowering the barriers to synchronous interactions with students (Warburton, 2009).

The increase in the methods of interacting with students synchronously outside the traditional classroom have led some scholars to propose that higher education is nearing a learning revolution. Specifically, Keengwe and Kidd (2010) have proposed that online education began to shift away from static, individualistic, and limited web-based education in 1995 to a more comprehensive e-learning approach in 2005 more fully embracing such activities as video and audio conference made available by newer technologies. They further argue that the age of social networking and mobile learning are shaping educational technology and how traditional and online instructors deliver their course material (Keengwe & Kidd, 2010).

2.1. Success in the online learning environment

There are many challenges to success in distance education and the online learning environment that have been known for quite some time. Research has shown that some of the major social obstacles include feeling isolated and disconnected (Pigliapoco & Bogliolo, 2008; Song, Singleton, Hill, & Koh, 2004; Tello, 2007; Vonderwell, 2003; Woods, 2002). When specifically looking at online environments, students have also noted their concerns about how to use specific technologies and software to successfully complete online courses as well as their ability to manage their time (Beaudoin, Kurtz, & Eden, 2009). Lack of clarity with regards to instructor and course expectations, underestimated time needed to fully complete assignments, and fitting academic responsibilities into already-full personal lives are also recorded challenges for students in online courses (Conrad & Donaldson, 2004; Palloff & Pratt, 2001). This has even led to new strands of educational research to try and understand online students’ lack of success and higher percentage of dropout rates (Lee & Choi, 2010).

With students’ concerns and challenges to their personal and academic success being noted, researchers have invested significant time and resources into understanding what leads one to feel successful in the online learning environment. In 2000, researchers first began the process of developing a measurement instrument that would allow for predicting online learner success (McVay, 2001; 2000). The online readiness questionnaire focuses on quantifying students’ comfort with technology, belief and perception of the effectiveness of online learning, and having high degrees of self-discipline, motivation, and initiative (McVay, 2001; 2000). Recently researchers have aimed to expand these traditional models by incorporating research including technical abilities (Peng, Tsai, & Wu, 2006), learner perceptions and
beliefs about online learning prior to the online learning experience (Tsai & Lin, 2004), ability to self-direct their own learning (Hartley & Bendixen, 2001; Hsu & Shiue, 2005), ability for time-management (Hill, 2002; Roper, 2007), and ability to take control over their learning (Stansfield, McLellan, & Connolly, 2004). Adding to the complexity of online learning, these studies created new measures or adopted scales from research on traditional classroom success.

In summarizing the research on the dimensions of online learning success and providing a more clear direction for future research, five key traits that successful online learning students possessed were identified, including self-directed learning, motivation for learning and awareness of and interest in the topic, computer and Internet self-efficacy, learner control, and online communication self-efficacy (Hung, Chou, Chen, & Own, 2010). This work expounded upon the traditional personality and skills traits that previous research has found by also examining student demographics.

The measures used in the current study seek to collapse the variables proposed and measured in other studies into four main dimensions proposed by the situational theory of publics: awareness of an issue, involvement in the issue, constraint recognition and removal, and information seeking. When applying these dimensions to the online learning environment, the constructs as operationalized in Table 1 reflect the many dimensions of success, or lack thereof, in distance education and the online learning environment. These dimensions include the self-motivation and time-management with personal and professional lives, understanding course expectations and class assignments, and having technical skills and knowledge needed to navigate the online learning environment.

2.2. Situational theory of publics

Although not created specifically with the goal of measuring and predicting student performance, the situational theory of publics theoretically can be used to identify key behaviors needed for online learning success. In the online learning environment, students face the problems of testing, assignments, or simply learning the material. After recognizing the situation, students work to reach a solution in the virtual classroom. How students respond to the situation is largely dependent on their attitudes and behaviors. Publics differ in the extent to which they participate in active behavior to resolve situations based on how they react when facing similar problems, recognize the problems, and attempt to resolve them (Grunig, 1983). The situational theory of publics argues that there are four types of publics. When a group of people faces a similar problem but fails to detect the problem, it is defined as a latent public. In the online learning environment, a latent public may be the student who is enrolled in the course but fails behind in time-management tasks and does not realize that deadlines for tests or assignments are looming, or it may be a student who fails to grasp why a particular topic (e.g., history of the discipline) may be relevant to current practices and teachings. When a group faces and recognizes the problem, it is termed an aware public though these publics often face obstacles to prevent full involvement. These may be students who work full-time during the week and may not have sufficient time to study for an exam even though they know the exam is scheduled on their calendars. Those who face, recognize, and attempt to resolve the problem, constitute active publics. Educational technology literature has frequently concluded that those who are most successful in online learning efforts are the most active students (Rovai & Barnum, 2003). Grunig (1997) differentiated between the communication behaviors of these publics. Latent publics are likely to process information but rarely will be motivated to move to action regarding the situation they face whereas active publics are more likely to engage in communication behavior that raises awareness levels of other public typologies to elevate their levels of action and behavior. In the classroom, these active publics may be group leaders in team projects or those who actively ask questions for clarification of concepts. Grunig termed those who do not face the problem in question as a nonpublic. For this scenario, these nonpublics would be students who have not registered for the course using online learning technologies.

The situational theory of publics consists of three independent variables (problem recognition, constraint recognition and level of involvement) and two dependent variables (information seeking and information processing) (Grunig, 1997). Problem recognition, or constraint recognition, refers to the mental state that exists when an individual stops thinking about the situation at hand and starts reflecting on its importance or how to resolve the issue. Constraint recognition is the extent to which a person views perceives barriers that limit one’s abilities to resolve the problem, and the involvement level focuses on the importance an individual assigns to the situation. Information seeking is premeditated actions designed to gather messages about the situation or issue at hand whereas information processing is the continued reflection and absorption of a message after it has been sought (Grunig, 1989a).

The situational theory has been used in numerous studies to assess the communication behavior of a variety of publics in an even greater number of situations, such as the general public’s response to natural disasters (Major, 1998), Fortune 500 investors’ reaction to corporate messaging (Cameron, 1992), consumers’ behavior in different cultural settings (Sriramesh, Moghan, & Wei, 2007), women’s understanding of health messages (Aldoory, 2001), and activist behavior by Sierra Club members (Grunig, 1989b) just to name a few.

Despite the situational theory’s success in grouping publics and predicting attitudes and behaviors, it has not been applied to the higher education learning environment even though its major variables certainly are reflected in instructional design and technology literature. Returning to recent meta-analysis of online learning success scales (Hung et al., 2010) reveals that an individual’s motivation and interest in a topic (awareness), communication and technology skills (overcoming constraints), and ability to stay focused on the topics (involvement) all touch on the concepts outlined in the situational theory of publics. Additionally, educational technology literature has frequently referenced the importance of the active pursuit of knowledge (information seeking), and students’ success on assignments and tests have been discussed in reference to how well students process course materials in the online learning environment.

Given the apparent connection between student success in the online environment and the situational theory of publics, the study’s primary research question was created:

RQ1: Can the situational theory of publics be used to predict success in the virtual classroom?

To answer this question, the study will examine self-reported student attitudes of the application of public relations and communication skills to their future career choices, student behavior toward participation in the online course and preparation for the semester exams, and student attitudes and behaviors dedicated to overcome barriers to their success. In doing so, the study will measure the three key independent variables of the situational theory (awareness, involvement, and constraint recognition) and their impact on the two dependent variables (information seeking and information processing) in the online learning environment.
3. Method

Surveys were administered to students enrolled in online “Introduction to Public Relations” courses at three ACEJMC-accredited universities in the Southeastern United States. The three courses were taught online in a similar manner with the instructor distributing three recorded lectures each week that students could watch when they wanted and holding synchronous virtual office hours for 5 h that allowed students to use institution-provided web-conferencing technologies and Web 2.0 tools, such as RSS feeds, blogs, and Twitter feeds, in addition to sending e-mails throughout the week. The courses all used a learning management system (e.g., Moodle and WebCT) to help students manage the online courses.

After taking the comprehensive final exam in the class online, students were instantly provided their final exam grade and offered the opportunity to complete an optional survey for extra credit. Students were informed that the five points of extra credit would be applied toward their lowest quiz grade – not their final exam grade – for participation in the study. Students were given three days after taking the final exam to complete the survey so that extra credit could be applied to their lowest quiz grade before final grades were due. Rather than having the instructors of the courses solicit participation, the lead researcher distributed e-mail invitations to the 256 students enrolled in the three courses. Of those students invited to participate, 182 completed usable surveys, achieving a 71% response rate. Though they were a convenience sample that limits the generalizability of the results to the study participants, the courses were located in three different states and represented different cultural and socio-economic communities. Sampling from a range of communities should help ensure that a wide variety of perspectives were collected.

The survey used modified versions of existing scales to measure the situational theory of publics variables. For the study, the modifications that were made focused on making the statements related to the students’ experiences in the online education environment. For the three dependent variables, the career decision-making self-effacy scale (Betz & Luzzo, 1996) was modified to specifically focus on the awareness and recognition of the value of public relations concepts and skills to measure the problem recognition/awareness measure while a subset of Snyder’s (2002) hope theory scale that focuses on how individuals work around obstacles to attain success was used to measure constraint recognition. Additionally, the expectancy for success scale (Fibel & Hale, 1978) was modified to measure involvement in the online learning environment. The two independent variables – information seeking and information processing – were measured based on the students’ self-reported behavioral data involving various methods of acquiring knowledge about the topic and self-reported comprehensive final exam scores, respectively.

Cronbach alpha values are measures of internal consistency, or how similarly related items in a scale are to one another. According to Carmines and Zeller (1979), alpha values are generally considered reliable when they are greater than 0.70. However, they note that newly developed scales, or scales being tested in a new domain, may have less than desirable alpha values and need further refinement. The awareness/career decision-making scale (α = .95), constraint recognition/hope theory (α = .94), and involvement/success expectancy (α = .74) were all found to be reliable. Collapsing textbook reading and the usage of e-mail, instant messaging, and Skype/web-conferencing technologies into one measure for information seeking proved to be problematic for scale reliability (α = .61) given that students were not required to use any of the methods for acquiring information about public relations though they were strongly encouraged to do so by the professors.

4. Results

Reflecting trends in public relations education and practice, the vast majority of students who completed the survey were female (75.8%). Caucasians (69.8%) and Hispanic/Latinos (18.7%) represented the two largest ethnicities followed by African-American/Black (6.6%) and Asian-American (3.3%). The students’ average age was 22.53 years (standard deviation = 4.24 years) with a range from 18 years of age to 41.

The students enrolled in the “Introduction to Public Relations” course represented a wide range of the academic continuum. In terms of their grade point averages, survey participants had an average of 2.91 (sd = 0.61). Most of the participants were either seniors (35%) or juniors (27.5%). However, sophomores (25.8%), students who had already earned a bachelor’s degree (6%), and nondegree seeking students (11%) and freshman (0.5%) also were enrolled in the courses and completed the survey. The remaining students were majoring in the humanities and social sciences (14.3%), physical sciences (7.1%), agricultural management (4.4%), education (2.7%), or had not declared a major (16%). The introductory public relations course was not the students’ first experience with online learning as they had used online technologies in an average of 3.49 classes (sd = 2.27); it should be noted that there were multiple students who had expressed that this was their first course that used online learning technologies.

To address the study’s research question about whether the situational theory of publics could describe and predict success in the online learning environment the researchers first had to group the students into three public types (latent, aware, and active); as conceptualized by Grunig and applied to this scenario, nonpublics would not have registered and participated in the online introductory course. To divide the students into the public types, their self-reported final exam scores were divided into three roughly equal groups (high, medium, and low) using the argument that the students’ level of awareness, constraint recognition, and involvement in the class would impact their comprehensive final exam scores. This division was made by calculating the separation points using SPSS so that one-third of the scores were in each of the three groups (high, medium, and low). Table 1 shows that dividing the students into these groups does accurately reflect the principles of the situational theory.

Table 1 shows a consistent trend emerged when looking across the three public types after testing the data using one-way ANOVA tests. For all variables, active publics had higher mean scores than aware publics. Aware publics, in turn, had higher mean scores than latent publics. Bonferroni tests revealed that the differences were statistically significant between active and aware publics, active and latent publics, and latent and aware publics for four of the five situational theory of publics variables: awareness (F(2, 179) = 9.79, p < .001), involvement (F(2, 179) = 34.85, p < .001), information seeking (F(2, 179) = 20.55, p < .001), and information processing (F(2, 179) = 99.98, p < .001). For constraint recognition, there were statistically different mean scores for the active and latent publics according to Bonferroni test results; however, there was no statistical difference between either the latent and aware publics or the aware and active publics.
any time they chose; however, students who watched lectures in the first part of the week (Sunday and Monday) had higher test scores (93.87, df = 2, p = .013) than those who watched the lectures in the middle of the week (Tuesday through Thursday) (m = 83.34, sd = 11.27), the end of the week (Friday the following Sunday) (m = 79.06, sd = 22.57), and more than one week after the recorded lectures were sent (m = 37.19, sd = 29.11). These differences were statistically significant using a one-way ANOVA final exam scores (F(3, 178) = 24.08, p < .001), and Bonferroni tests confirmed that statistical differences existed between every group except for those students who watched in the first and middle part of the week. This provides further evidence that those who were involved in the course and gave themselves more time in the week to reflect on the course concepts absorbed the material more and performed better on the final exam. Although the first table shows that the situational theory of publics does an adequate job of describing online learning success in the virtual classroom, the researchers wanted to explore specific behaviors that the students engage in to better understand how students can succeed. The second table provides insights into how distracting behaviors impact students’ ability to seek and process course concepts (Table 2). Specifically the table shows that members of latent publics were more likely to watch television (χ² = 8.68, df = 2, p = .013), listen to music (χ² = 27.87, df = 2, p < .001), or monitor their social networking site profile (χ² = 9.37, df = 2, p = .009) while watching online lectures or completing online assignments. Having one’s cell phone nearby was something that nearly every student engaged in (χ² = 72.57, df = 2, p = .000). Few students reported monitoring educational websites (χ² = 1.56, df = 2, p = .459), such as the learning management systems (e.g., Moodle or WebCT), and e-mail was found to be used by similar proportions of all the students (χ² = 2.40, df = 2, p = .301).

Self-created distractions may be used more often by members of the latent publics in many cases, but the researchers found that proactive behaviors by students also corresponded to success in the virtual classroom. The students who participated in the survey all were members of the aware public (n = 57), and more than one week after the recorded lectures were sent (m = 37.19, sd = 29.11). These differences were statistically significant using a one-way ANOVA final exam scores (F(3, 178) = 24.08, p < .001), and Bonferroni tests confirmed that statistical differences existed between every group except for those students who watched in the first and middle part of the week. This provides further evidence that those who were involved in the course and gave themselves more time in the week to reflect on the course concepts absorbed the material more and performed better on the final exam.

### Table 2
Students engaging in behaviors that may create personal constraints to online learning success while participating in the virtual classroom.

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Latent public (n = 61)</th>
<th>Aware public (n = 61)</th>
<th>Active public (n = 60)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watching television</td>
<td>21</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Listening to music</td>
<td>21</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Monitoring e-mail</td>
<td>24</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>Monitoring social networking sites</td>
<td>38</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>Monitoring educational websites</td>
<td>5</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Having cell phone at one’s side</td>
<td>58</td>
<td>56</td>
<td>57</td>
</tr>
</tbody>
</table>

*χ² (2, 179) = 9.79, p < .000.*
*χ² (2, 179) = 34.85, p < .000.*
*χ² (2, 179) = 7.84, p = .001.*
*χ² (2, 179) = 20.55, p < .000.*
*χ² (2, 179) = 99.98, p < .000.*
Additionally, students that watched all three lectures in one sitting performed lower on the semester tests ($m = 77.94, sd = 9.04$) than those who watched one ($m = 83.21, sd = 13.23$) or two lectures ($m = 81.03, sd = 19.5$) each time they sat down to watch the recorded lectures. Although these differences are not statistically significant ($F(2, 179) = 0.96, p = .384$), the mean scores demonstrate that students who did not try to rush through the weekly lectures had slightly higher mean scores than those who took time to watch and reflect on the concepts in multiple sittings.

While the situational theory of publics appears to do an accurate job of describing online learning success, the true test of a theory is its ability to predict outcomes. To test the relationships between the situational theory variables to see if they can predict student success, a path analysis was conducted. Parameters for a successful model were set at the following levels: (1) a Chi-square score equal or greater than 0.05, (2) a nonsignificant Chi-Square, (3) a ratio of Chi-square to degrees of freedom of equal or less than 3, (4) a comparative fit analysis (CFI) greater than or equal to 0.90, (5) a goodness of fit index (GFI) score of greater than or equal to 0.90, (6) a normed fit index (NFI) score of greater than or equal to 0.90, and (7) root mean squared error approximation (RMSEA) of less than or equal to 0.08 (Raykov & Marcoulides, 2000).

The model that was tested followed the propositions of the situational theory, and the model met all minimum requirements for a good model fit. The final accepted model shown in Fig. 1 reveals that the situational theory variables impact each other as indicated by the existing literature on the theory. Students' awareness of public relations as being important to their future careers lead students to seek ways to remove the obstacles that prevented them from learning about the industry ($b = 0.647, s.e. = 0.05, p < .001$). Additionally, the removal of obstacles had a statistically significant impact on increased involvement in the virtual classroom ($b = 0.414, s.e. = 0.06, p < .001$), and increased involvement lead to students' pursuit of finding more information about the course concepts and materials ($b = 0.353, s.e. = 0.04, p < .001$). Ultimately, information seeking behaviors had the strongest statistical impact on students' ability to process information, which was measured by their final exam test scores ($b = 0.813, s.e. = 0.05, p < .001$).

5. Discussion

Using data from students enrolled in three separate online introductory public relations classes at three separate ACEJMC-accredited universities, there is evidence that the situational theory of publics both describes and predicts success in the online learning environment. The key concepts espoused by the theory can be correlated with research conducted by educational technology and instructional design scholars. This study's survey data found that active, aware, and latent public groupings not only described how students' awareness of the course concepts, how they approached recognized constraints and sought to overcome them, and how they were involved in the course, but also were very accurate in predicting test scores. The insights provided by the structural equation modeling of the situational theory variables to online learning provide suggestions for how online instructors can improve their courses to help students be more successful not only with their test and assignment grades but more importantly truly learning the material.

5.1. Increasing the involvement of online students

One of the key variables in online student involvement and success is the actual and perceived availability to the course instructor (Stein & Glazer, 2003). This can be facilitated by offering students multiple avenues of communication including scheduled, revolving virtual office hours, availability via instant messaging systems, such as AOL Instant Messenger or Google’s chat function, or even access through social networks like Facebook and Twitter (Collis & Moonen, 2008). In addition and based on technological availability, instructors can explore such alternatives as video and audio conferencing with free software such as Skype. Availability to these technologies must be clearly expressed for students as well as expectations for timeliness and appropriateness in communications early in the course for these methods to be most effective. With the quickening pace of everything in student’s lives, it is important to address response time head on to avoid misunderstandings and anxiety-ridden students (Vonderwell, 2003).

By choosing a centralized organizational structure, instructors can boost online student success. Students can best achieve clarity about course expectations, assignments, and test dates by accessing a learning management system (e.g. Moodle, Blackboard, course website) that serves as the primary location for everything regarding the course. This results in greater student involvement as opposed to having multiple sites containing dispersed information and instructions. Students' comfortableness with e-learning and technologies (and lack thereof) can make even the seemingly simplest activities incredibly challenging and frustrating (Lee & Choi, 2010). Providing students with one place for assignments, questions, and answers can alleviate this tension, possibly avoid unwanted stress, and increase participation.

As referenced in educational and online learning research, social presence and connection with peers must be addressed for students to feel and experience success in online courses. Developing community can be supported by exploring synchronous meetings with students, creating an online space for students to “hang out” and connect outside of course experiences, and requiring students to complete group projects and assignments. Student involvement is known to increase in all cases where an instructor has deliberately attempted to create and maintain community online (Johnson & Johnson, 2005; Poole & Zhang, 2005).

![Fig. 1. Final model of student success as supported by the situational theory of publics.](image-url)
5.2. Reducing obstacles for online students

Technology support sites and information must be provided within primary course documents including syllabi and course calendars and schedules. These can include, but are not limited to, links to department, college/school, and university Help Desks and technology resources. Phone numbers, e-mail addresses, and other contact information should also be included such that the online student knows who to contact and when to help solve their technology challenges. Students have noted repeatedly that technological glitches were to blame for lack of success and satisfaction in online learning experiences (Dupin-Bryant, 2004). Providing as many avenues for support upfront can assist in addressing this complaint and therefore reduce further obstacles to online learning success.

In addition, when specific software is required (e.g. Internet browsers, statistical software, Flash-based websites, Javascript-dependent applets) these should be communicated to students before the assignment or activity. Computer hardware and operating systems vary widely from platform to platform including individual consumer customization. Although enormous advancement has helped, it cannot be assumed that because a website works on a browser within the university computer system that students will be able to access the site from their home or office computer browsers. Fluency in required software by consulting minimum requirements set by distance education and online learning support teams can help instructors lower this barrier for their students.

Not all technological challenges can be accounted and planned for and as such instructors should aim to empower their online students to seek out solutions for the problems that they will inevitably encounter in the online learning environment (Beaudoin et al., 2009; Hung et al., 2010; Holder, 2007). Instructing students in how to best formulate search strings with popular Internet search engines and providing links to trusted support resources (outside of provided university support) can not only increase student success and satisfaction in the course at present but also effect their performance in future online learning classes and activities. These resources could include the Google, Bing, and Yahoo search engines as well as video sites such as YouTube and Vimeo. As web-based technologies continue to evolve and emerge, practitioners and educators alike will have to continue to seek out and confirm additional troubleshooting sites.

5.3. Increasing awareness of content for online students

While there is no guarantee that these obstacle reduction and involvement strategies will increase student performance, they certainly will aid in creating a more hospitable environment for online learning. Perhaps the most important strategy for online instructors is to focus on making students aware of how the course content is relevant to their lives beyond the course. Many instructors take for granted that updating lectures with current examples is a standard aspect of lecturing when assigned to teach courses that have been taught before. But, a virtual classroom provides many opportunities for students to connect with their future profession and current practitioners in ways that the traditional classroom cannot.

For a public relations relation, students can engage in online conversations with practitioners and other students on online forums, such as PROopenMic.org (social network for public relations students, faculty, and practitioners) or during regularly scheduled Twitter chats (e.g., #PRStudChat, a monthly Twitter chat designed to bring together PR students, professionals, and educators for a dynamic conversation about the Public Relations Industry and to provide opportunities for learning, networking and mentoring relationships). Students can use web-cams and web-conferencing technology to interview practitioners around the world after connecting with them through Facebook, LinkedIn, and other social media platforms. Through virtual field trips to public relations agencies on SecondLife or to the online museum of public relations exhibits (pr museum.org), students are able to experience aspects of the industry that they simply cannot do in a traditional classroom without sacrificing the interpersonal connectivity. Additionally, students can take advantage of webinars offered by the Public Relations Society of America and other professional groups as well as watch in-depth interviews with industry leaders provided by the Plank Center for Leadership in Public Relations to add to their online learning experience. While these experiences are specific to public relations, equivalent opportunities and offerings are available for other academic disciplines that can easily be incorporated into the virtual classroom. Highlighting how the concepts learned in the classroom correspond to what goes on outside the class will help make students more aware and strengthen their desires to seek out and process information pertaining to new academic concepts.

6. Conclusion

This study found that the situational theory of publics both describes and predicts success in the virtual classroom. In attempting to better understand what instructors can do to help their students better prepare for online learning, this study also expanded the scope of the situational theory of publics. While the theory has been tested in many domains, this appears to be the first study to examine the public relations concepts of awareness/problem recognition, involvement, and constraint recognition as they apply to information seeking and information processing in the higher education environment, specifically with online learning. This study demonstrates that using public relations theories and concepts may provide significant insights into how presumably unrelated disciplines. However, the limitations of the study must be acknowledged before pursuing further educational success studies using public relations theory.

6.1. Limitations

This study suffers from the use of a convenience sample. Although the students who participated in this survey represent different geographical areas, insights from their data cannot be generalized beyond their own classes. Fortunately, the domain of the virtual classroom is the global community, so traditional geographic limitations have the potential to be eliminated by tapping into the vast network of online public relations communities. Perhaps the most significantly, this study demonstrates complications of taking theories from one academic discipline and applying them to another completely unrelated discipline. Even though there were parallels in the literature on online learning and educational technology to the concepts outlined in the situational theory of publics, there were no direct connections using the same terminology and conceptual definitions.

Additionally, since there are no established scales for measuring the situational theory of publics, arriving at reliable, valid scales to measure awareness, involvement, and constraint recognition proved to be problematic. This study modified established scales from other
disciplines to measure the three dependent variables; however, the creation of lasting scales to measure the situational theory would greatly benefit the reliability and validity of public relations theory in the future.

Finally, it should be stressed that this study used one measure of student performance – the self-reported final exam score – to determine online learning success. As noted in the literature review, there are many ways that online learning success has been operationalized and measured. Test scores are not the only measure, and future research should dive into other dimensions of online learning success, including long-term information retention, mastery of skills, and pursuit of additional information outside of course requirements, to explore the impact of the situational theory of publics variables more fully.

6.2. Future research

In regards to virtual instruction, the results of this study show that more work needs to be done examining students’ motivations for online success as well as what professors can do to encourage online involvement with their students. Involvement was the main variable that predicted online learning success, so research should be carried out to determine what forms of engagement are most rewarding for students and instructors. This research could be vital in helping transition students from thinking that an assignment is something that must be completed to something that is helping them grow professionally.

But, this study also opens the door to researching the dynamics of education through the public relations lens. While studies have examined the nature of the students’ relationship with their universities (e.g. Ki & Hon, 2007; Jo, Hon, & Brunner, 2005), applying the relationship management paradigm to the classroom to better understand students’ relationships with their instructors may provide even greater insights into how students succeed academically. Does trust, satisfaction, and a balance of power in the classroom help lead students to being more committed to learning course content? Or, does an instructor’s use of Kent and Taylor’s (1998) dialogic principles help influence student success? The questions are plentiful as scholars begin to pursue public relations concepts in this completely new environment.

References
