

ORIGINAL RESEARCH

Persistence among graduate nursing students enrolled in an online course

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Received: November 29, 2012

Accepted: January 16, 2013

Online Published: February 27, 2013

DOI: 10.5430/jnep.v3n9p48

URL: <http://dx.doi.org/10.5430/jnep.v3n9p48>

Abstract

Attrition in online courses, when compared to face-to-face courses, is higher. Student persistence affects the ability to complete an online course. The aim of this study was to quantitatively measure persistence among nursing students enrolled in a master's level required theory course. Study data, collected during the first two weeks of the semester, included responses to the Persistence Scale for Online Education (PSOE) and completion of a demographic data sheet. Data from 26 consented students revealed an overall moderate level of persistence. The four students who reported low levels of persistence failed to complete the course. It appears that the PSOE can reliably identify the student at-risk for course incompleteness and may be useful in identifying those for whom intervention would be helpful.

Key words

Persistence, Online courses, Nursing

1 Introduction

According to the results of the Babson Survey^[1], a course may be classified as online when 80% or more of the content are delivered using web-based formats and there is no face-to-face contact. Colleges are providing online courses as a means of allowing students to complete higher educational requirements while balancing life and work schedules. In the U.S., enrollment in online courses increased from 1.6 million in 2002 to 6.1 million in 2010^[1]. This translates into an annual growth rate of 18.3%. Online learning has become a mainstay of education with more than 50% of all Western universities incorporating distance education into programs of study^[2]. Colleges and universities view online courses as crucial to their success and future planning^[1]. Students' view online course as meeting their scheduling needs and more convenient compared to the traditional classroom^[3-5]. Despite the growth in online courses, persistence, or the ability to complete the courses required for the degree, remain problematic. Research has identified a multitude of reasons which result in higher attrition rates in online courses^[4, 6, 7].

The term persistence, when related to post-secondary education, has been viewed as the opposite behavior of attrition or departure from college^[8]. Berger and Braxton^[9] used intent to return to a program of study as a measure of persistence. Sadler^[10] states that attrition is the antonym of persistence and posits that it influences career decision-making, self-efficacy, perceived stress, financial attitudes, locus of control, and academic and social integration. Persistence in nursing education has been defined as the ability of the student to overcome obstacles and successfully complete a

program of study, thereby predisposing to student success and mastery of content^[11, 12]. Persistence is the continued effort by the student towards online course completion, oftentimes despite obstacles or hardship^[13]. Wood, Saylor, and Cohen^[14] offer similar support for a link between an external locus of control and student success. Table 1 presents a summary of those factors associated with persistence in the online student.

Table 1. Facilitators of Persistence

Facilitators	Author	Synthesis of Studies
College status, graduating term, comfort with online course work	15-16	The closer to graduation, the more persistent the student. This may be related to becoming more technologically savvy and comfortable with online instruction.
Flexibility, asynchronous format. Time management	4, 6, 15, 17-18	The flexibility of an online course is very attractive to student attempting to balance work and family demands. The asynchronous format allows control over one's schedule and course work can be accomplished with less disruption to work and family schedules. Persistent students tend to have better study habits and complete work in a timely manner.
Goal Commitment	6	Desire to attain goals (degree completion) is a powerful motivator in the online student. This intrinsic motivation of pursuing a dream is often coupled with personal challenge, an appreciation of learning, and personal responsibility.
GPA	19-20	Students with a higher GPA are often able to better maneuver through the electronic environment and adopt successful behaviors that allow them to excel in the online course. It may be that success in one class positively motivates the student to work harder in the next class.
Quality of interactions and feedback	6, 21	Feedback that is constructive and adds meaningful input into learning is viewed as valuable by the students and will contribute to persistence. Ambiguity in content or communication can be difficult for the online student to process, thus increasing the importance of quality interactions with faculty and other students.
Satisfaction and relevance	5-6, 16-17	Satisfaction as a facilitator of persistence is a consistent finding when included as a variable. Persistent students voice satisfaction with the quality of the program, interactions with students and peers, the relevancy of the course to individual needs, and satisfaction with the learning environment itself.
Self-efficacy, personal growth, self-motivation	4-6, 15, 17, 21	Although goal attainment is a powerful motivator for online students, on a daily basis personal resolve and determination contribute significantly to persistence. Students who have high personal expectations and self-efficacy as well as those who enjoy the challenge of online learning will also tend to be more persistent. These characteristics may lead the student to engage more in the classroom, ask searching questions, and constructively work through problems. A sense of personal and professional growth can increase motivation to complete the course and promote persistence.
Social connectedness or presence	6, 20-21	Increased comfort with the virtual social interactions of an online environment may increase persistence. When these social connections are transient (i.e. vary by course), they may not create a significant source of support, but instead may create an encouraging environment. The persistent student is able to form connections within each course, increasing the positive nature of the experience. An active and encouraging faculty presence is also viewed as contributing to persistence.
Support	4- 6, 15, 20-21	The role of family, friends, co-workers, and fellow class members in student persistence is well documented. Understanding from family and co-workers in behaviors needed to manage academic workload contributes to persistence. Other class members can also provide support and encouragement to continue with studies despite hardship. This virtual community provides a sense of camaraderie and can assist students in troubleshooting problems. Faculty may also increase perceptions of support through feedback and social presence.

Persistence, both a characteristic and an attitude, allows the student to master content, achieve their educational goal, and experience self-satisfaction^[12, 23, 24]. Attributes which enhance persistence include determination to succeed, perceived satisfaction, course engagement, and positive interactions with the instructor and peers^[10, 14, 23-25]. As a precursor to success, persistence can be positively influenced by the educator through such interventions as feedback, conversation,

clear expectations, and social connectedness^[23, 24, 26, 28]. Certainly, personal challenges exist and can result in the failure to complete a course. These reasons, while related to persistence, maybe beyond the realm of any educational intervention.

According to Perry and associates^[29], unexpected changes in personal situations often result in the need to withdraw from an online course. Thus, a myriad of factors, controllable and uncontrollable, are required for sufficient persistence to be present to complete an online course. Despite an inherent inability to predict unforeseen and often adverse circumstances, attributes and precursors may serve to protect resilience for the student enrolled in an online course. For example, social and academic integration have long been held to positively influence persistence levels^[30-32] despite personal situational changes or a disengaged instructor.

The purpose of this study was to allow master in nursing students to self-describe their perceived persistence in the ability to complete an online nursing theory course. This course is typically the initial course taken within the master's program of study. Data were collected during the first two weeks of the course, making it possible to correlate these results with student success for course completion.

2 The project

The Persistence Scale for Online Education (PSOE) was developed to assess persistence in the student enrolled in an online course. Results of the PSOE allow the educator to objectively identify the student at risk for failure to complete the course, as opposed to failing the course. Based upon a review of the literature, the PSOE obtains data to describe student perceptions of social connectedness, perceived stress and support, self-determination, and goal attachment. Previously validated surveys were modified to develop the PSOE, thus providing construct validity. Face validity for the PSOE was achieved upon review by experienced nurse educators and a researcher with instrument development expertise. After revision, an initial feasibility study determined that the PSOE is reliable, based on a Cronbach's Alpha of 0.85^[33]. The PSOE consists of 32 items; six of these items are descriptive, allowing each participant to self-describe student characteristics and previous experience with online courses, and 26 items are Likert-scaled. Possible responses for these items range from strongly agree (4) to strongly disagree (1), with a possible neutral response (0). Five items assess social connectedness (I look forward to reading other posts on the discussion board); six items assess perceived stress and support (I believe this institution is committed to providing quality education); seven items assess self-motivation (I have many personal strengths); and goal attachment is assessed by five items (When I set goals, I tend to succeed). Summing the responses to the 26 PSOE items determine persistence, as assessed by the constructs within the PSOE, and self-described by the student. Potential scores for the PSOE, as reported by the author (Hart, 2012), range from 0 to 104.

Institutional Review Board (IRB) approval was secured prior to collecting any study data. Each student enrolled in the Nursing Theory course received an email from the course instructor inviting them to participate in the study. If study participation was desired, the student was directed to the survey link in the Blackboard® system^[34]. As a survey, Blackboard® allows the instructor to determine who completed the survey and obtain a total response score; the capability of determining responses to individual items is not feasible. Data were collected during the first two weeks of the semester, prior to any graded course assignment. This was to avoid course content that might impact the student's perceived persistence.

Study participation was offered to students enrolled the master's level Nursing Theory course. These individuals are beginning their educational process toward an advanced nursing degree, within one of six educational tracks (family, adult, pediatric, women's health, neonatal nurse practitioner, and nurse educator) programs. As such, these individuals have completed an undergraduate degree and have met the qualifications for admission into their respective program.

Enrollment rosters indicate that 34 students were enrolled in the Nursing Theory course. Data were obtained from 26 students, representing a 74% response rate. Demographically, these individuals may be described as female (N=23; 88%)

and between the ages of 24 and 49 years (mean = 32.5 years). Ninety six percent (n=25) reported that this course was their first course in the Master's in Nursing Program and their first online course. Each of the six educational tracks was represented.

Reliability of the PSOE, determined by Cronbach's alpha, was .729, indicating that the survey was reliable. Scores on the PSOE ranged from 29 to 59 (mean = 47, SD 7.7). This indicates that while these students self-described their persistence as high (positive responses to over 51% of the items) none described their personal persistence as superior. The four students whose PSOE responses were between 19 and 46 (51% to 68%), or the lowest scores reported, failed to complete the course. Anecdotal data indicates that these individuals dropped the course as a result of misunderstanding the time commitment required for the course, computer access problems, child care difficulties, and an inability to negotiate decreased work responsibilities.

3 Conclusion

The results of this study indicate that the PSOE is capable of measuring persistence among students enrolled an online course. The PSOE appears to be capable of identify the student who, for a variety of reasons, is at risk for the inability to complete, rather than failing, an online course. The PSOE is not capable of identifying the reason for the inability to complete the course. Confidentially sharing individual results of the PSOE with students allows them to be aware of their 'at risk' status, which may encourage them to be proactive with issues, identified by the PSOE, that impact the ability to complete the course.

Further research, which includes administering the PSOE to nursing students in different academic tracks, different geographical locations, and with diverse ethnicity are necessary to further delineate its psychometric properties, generalizability, and educational usefulness. The PSOE provides a method to quantitatively assess persistence, as it impacts the ability to complete an online course. The results of this study support previous research indicating that persistence is an important component in educational success.

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