
Overcoming Student Retention Issues In Higher Education Online Programs

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Abstract

Pressure exists to attract and retain students in higher education. Online educational programs have the potential to increase the number of students who can enroll in degree-bearing institutions. Explored in the qualitative study using a modified three-round Delphi technique was the phenomenon of consistently lower student retention rates in fully online programs in higher education, as compared to student retention rates in ground-based programs. Experts suggested that student self-discipline, instructor engagement and response time in courses, and the need for institutions to offer online students an array of support services contribute to student retention in fully online programs. Panelists revealed concerns and practices that may influence student retention. These practices ultimately relate to social and academic integration.

Introduction

The number of students enrolling into online programs continues to grow in the United States (Allen & Seaman, 2007, 2008, 2010; DiRamio & Wolverton, 2006; Trenholm, 2007). President Obama's 2009 stimulus package included "the creation of a \$2.5-billion grant program to help states improve college-completion rates" (Field, 2009, para. 2). Higher education leaders implemented new programs and online delivery methods, in part, in an effort to attract and retain more students (Allen & Seaman, 2006, 2007, 2008).

The increase of online courses and programs in higher education led to a point of view that education had the potential to be more expansive than ever before in United States' history (Allen & Seaman, 2006; Sileo & Sileo, 2008). Despite the continual growth of online students, one of the largest challenges for educational leaders is that student retention in online programs is lower than in traditional, campus-based programs (DiRamio & Wolverton, 2006; Hoyer, 2006; Liu et al., 2007; Stanford-Bowers, 2008; Terry, 2007). This qualitative study included an exploration of potential influences on and recommendations to help improve the consistently lower student retention numbers in fully online, undergraduate higher education programs.

The purpose of the qualitative study, using a modified Delphi technique, was to examine what a panel of 20 experts would identify as priority issues or concerns influencing student retention in fully online undergraduate programs in higher education. Examined in the study were the panelists' experiences, perceptions, and opinions. Results of the study and recommendations from the experts may have implications for educational leaders' decisions and institutional policies, organizational structures, and instructional activities, especially as they relate to fully online programs. Demonstrated in Table 1 is the growth in online enrollment between 2002 and 2008.

Table 1

Online Education in Degree-Granting Postsecondary Institutions: Fall 2002 through Fall 2008

Year	Total Enrollment	Annual Growth Rate Total Enrollment	Students Taking at Least one Online Course	Annual Growth Rate Online Enrollment	Online Enrollments as a Percent of Total Enrollment
Fall 2002	16,611,710	NA	1,602,970	NA	9.6%
Fall 2003	16,911,481	1.8%	1,971,397	23%	11.7%
Fall 2004	17,272,043	2.1%	2,329,783	18.2%	13.5%
Fall 2005	17,487,481	1.2%	3,180,050	36.5%	18.2%
Fall 2006	17,758,872	1.6%	3,488,381	9.7%	19.6%
Fall 2007	17,975,830	1.2%	3,938,111	12.9%	21.9%
Fall 2008	18,199,920	1.2%	4,606,353	16.9%	25.3%

Note. Developed from “Learning on demand: Online education in the United States, 2009,” by I. E. Allen and J. Seaman, 2010, *The Sloan Consortium*.

Learner-centered Education

Learner-centered theories represent a shift in instructional paradigms, wherein traditional educational approaches were largely teacher-centered (Stanford-Bowers, 2008). Learner-centered models “emphasize students’ responsibility for their own learning” (Howell et al., 2003, para. 31). Howell et al. (2003) noted:

Instructional approaches are becoming more learner-centered. . . . Whereas in the past, most instructors followed a “transmission” or lecture-style approach to teaching, more instructional diversity is occurring among teachers who are trying a larger variety of approaches. A pedagogical shift is likewise occurring within distance education, moving from a transmission model to constructivist, sociocultural and metacognitive models. (para. 31)

Retention

Retention concerns in online education is often related to the higher attrition rates in fully online programs. Administrators in charge of online programs may look to retention models for solutions. Prominent student retention researchers, such as Tinto and Bean, offered theories and models, such as Tinto’s Student Integration Model and Bean’s Model of Student Departure, to help educators understand potential variables that affect student retention, attrition, and persistence in educational programs (Herbert, 2007; Soen & Davidovitch, 2008; Veenstra, 2009; Woodley, 2004). Tinto (as cited in Soen & Davidovitch, 2008) suggested that “academic as well as social integration [are] the primary predictors of student success” (p. 128).

Distance and Online Education

Distance education has evolved since correspondence methods, which typically consisted of essays and tests being physically mailed to and from instructor and student. Buckley and Smith (2007) posited, “Distance education is a brave new world: dynamic, engaging, evolving, and growing” (p. 57). Simonson (2006) observed that online education was becoming a part of the mainstream in higher education. Sileo and Sileo (2008) examined the impact of online education in rural areas and suggested that one reason online education might be of great importance to education was the ability to reach rural areas of the United States, noting online education had the potential to bring the educational experience to more students than ever possible in the past.

Students may notice that their roles could be shifting, due to the increased availability of online programs, and they have more control over and more responsibility for their own learning (Allen & Seaman, 2005;

Dykman & Davis, 2008; Stanford-Brown, 2008). Educators have witnessed a shift in the type of student that enrolls in colleges and universities. Increasing numbers of non-traditional students make up the population in colleges and universities (Allen & Seaman, 2008, 2010; Howell et al., 2003).

Literature

Researchers specifically explored the phenomenon of lower student retention rates in fully online programs and reviewed issues and practices that may lead to improvement in student retention in fully online programs. Learner-centered educational theories and approaches, such as constructivism (Khare & Lam, 2008; Magnussen, 2008; McCrory et al., 2008; Pai & Adler, 2001), situational and authentic learning (Correia & Davis, 2008; Khare & Lam; Stanford-Bowers, 2008), and transformative learning (Correia & Davis, 2008; Glickman et al., 2006; Imel, 1999; Stanford-Bowers, 2008) have been found to offer insight into the nature of learning in the online environment.

Method

The study was structured as a modified three-round Delphi. A Delphi study relies on experts in a field and takes place in a series of rounds. In each round, responses from participants are analyzed and then continually reflected upon by panelists and refined for further analysis (Linstone & Turoff, 2002). The 20 selected Delphi panel experts identified priority issues, practices, and concerns regarding student retention in online programs. Participants in the study were administrators who had at least three years working directly with fully online programs. They provided perceptions, opinions, and recommendations on an individual basis. The experts' collective suggestions may lead to formation of future best practices regarding how to retain more successfully and efficiently students in online programs.

Responses from the Delphi panel were retrieved over the three rounds, analyzed, and priority issues that may affect policies, organizational structures, and student retention practices in online programs were identified, considered, and refined in order to offer predictions for best practices in the online forum (Linstone & Turoff, 2002). One strength of the Delphi technique is to determine future predictions or, in this case, recommendations.

After completion of the first round of questions, content themes from the responses from the first questions emerged with the aid of NVivo8[®] qualitative analysis software (QSR International, 2009). Panelists reviewed the themes in the second round, where they rated the themes identified in terms of perceived priorities (Linstone & Turoff, 2002). Round 2 included a Likert-type survey, and panelists were asked to rate content themes generated from the first round responses in terms of priority concerns or impact on student retention in online programs. Upon completion of the second round survey, results were tabulated and shared with panelists in the third and final round. Participants had the opportunity to reflect upon their original responses from Round 1 (Skulmoski et al., 2007) and to offer recommendations that may positively affect student retention in fully online programs. Reliability was established through a pilot study. Pilot participants received two open-ended questions, intended to be the questions for the first Delphi round. They suggested revisions to help ensure clear and unambiguous questions, which are important for establishing reliability for the formal study (Creswell, 2005).

Panelists' responses to the initial broad, open-ended question (Linstone & Turoff, 2002; Skulmoski et al., 2007) were collected from PsychData.com. Responses were reviewed and emergent themes identified, with the assistance of NVivo8[®] (QSR International, 2009) software (Babbie, 2010; Neuman, 2003). Participants reviewed the themes in the second round and were asked to rate the consolidated responses in terms of perceived concern or impact on student retention. The second round included a Likert-type scale, where panelists rated responses in terms of *priority concern or impact on student retention*, *medium concern or impact on student retention*, *low concern or impact on student retention*, or *no concern or impact on student retention*. Responses were collected, and simple quantitative statistical analysis was performed to reveal the mean level of agreement related to each theme (Neuman, 2003).

In the third and final Delphi round, the top four issues or aspects identified from Round 2 were presented, and panelists had the opportunity to rank the issues, from *most influential* to *least influential*. They were also asked to express the degree to which their highest ranked issue corresponded with their initial

response to the Round 1 question. Finally, participants provided their recommendations, based on their highest ranked option in the third round.

Results

Common themes emerged as panelists considered and refined their collective responses during the three-round process (Linstone & Turoff, 2002; Skulmoski et al., 2007). The following emergent themes were identified (see Table 2):

1. Student Support and Student Connection with the Institution.
2. Quality of Interaction between Faculty and Students.
3. Student Self-Discipline.

In Round 1, the theme, *student support and connection with the institution* was predominant. Results from Round 2 indicated that panelists placed importance on *quality interaction between faculty and students* as theme, and *student self-discipline* was the second-most identified theme. During Round 3, panelists rated *student self-discipline* as having a high influence on student retention in fully online programs. *Instructor response time and ongoing presence and activity in online courses* was rated in second position, which is related to the theme, *quality of interaction between faculty and students*.

Table 2
Top Four Themes Identified from Round 1

Theme	Frequency of theme in responses
Students receive adequate and ongoing support from institution in all areas	14
Expectations of students forthcoming / proper “fit” for student and online environment	13
Instructor response time and ongoing presence and activity in online courses	9
Student orientation and preparation for online environment	8

During the second round, panelists received a survey with a Likert-type scale, and were asked to rate the 32 themes identified from Round 1 in terms of *priority concern or impact on student retention, medium concern or impact on student retention, low concern or impact on student retention, or no concern or impact on student retention*. For the current study, one purpose of Round 2 was to “pare down” (Skulmoski et al., 2007, p. 4) the list of 32 themes generated in Round 1 to a more manageable list that could be presented back to the panel in Round 3, for additional refinement and development of possible consensus (Linstone & Turoff, 2002; Skulmoski et al., 2007).

Panelists in Round 2 suggested that the ability for students to *self-regulate* (Artino, 2008) had a high influence on student retention in online programs. Responses were collected and quantitative statistical analysis was performed to determine the mean level of agreement and standard deviation (*SD*) related to each theme (Neuman, 2003). The value for the mean level of agreement was computed across the entire sample for each theme. Results were based on a Likert-type scale where a value of 4.00 represents priority concern. Presented in Table 3 are the four highest-rated results from Round 2.

Table 3

Round 2 – Highest Rated Priorities Identified Based on Themes Generated from Round 1 (n=20)

Theme	Priority concern or Impact n(%)	Medium concern or impact n(%)	Low concern or impact n(%)	No concern or impact n(%)	M	SD
Quality of interaction, faculty-student	18(90)	2(10)	0(0)	0(0)	3.9	.31
Student self-discipline	17(85)	3(15)	0(0)	0(0)	3.85	.37
Quality of academic program	17(85)	3(15)	0(0)	0(0)	3.85	.37
Instructor response time and on going presence and activity in online courses	16(80)	4(20)	0(0)	0(0)	3.8	.41

Based on highest mean score and lowest standard deviation ($M=3.9$, $SD=.31$), *quality interaction between faculty and students* was rated as the highest *priority concern or impact* on student retention in fully online programs by the panelists in Round 2. In Round 1, this theme was identified only once. Likewise, *student self-discipline* and *quality of academic program* were both rated second highest ($M=3.85$, $SD=.37$) as *priority concern or impact* in round two but were identified only once, each, in Round 1. The third-rated ($M=3.8$, $SD=.41$) *priority concern or impact*, *instructor response time and on-going presence in online courses*, was identified nine times in Round 1.

Table 4

Top Four Theses Identified from Round 1 and Mean Level of Agreement from Round 2

Theme	Number of times theme appeared in Round 1	Mean level of agreement in Round 2
Students receive adequate and ongoing support from institution in all areas	14	3.35
Expectations of students forthcoming / proper “Fit” for student and online environment	13	3.05
Instructor response time and ongoing presence and activity in online courses	9	3.8
Student orientation and preparation for online environment	8	3.3

Presented in Table 5 are the four highest-rated results by panelists in Round 3.

Table 5
Round 3 Panelists' Rankings of Top Four Aspects from Round 2 (n=20)

Theme	1 (Most influential) n (%)	2 n(%)	3 n(%)	4 (Least influential) n (%)	M
Student self-discipline	8(40)	5(25)	1(5)	6(30)	2.25
Instructor response time and ongoing presence and activity in online courses	6(30)	5(25)	6(30)	3(15)	2.3
Quality of interaction, faculty-student	1(5)	8(40)	8(40)	3(15)	2.65
Quality of academic program	4(20)	2(10)	5(25)	9(45)	2.95

In Round 3, panelists rated *student self-discipline* as being the *most influential* priority concern or impact on student retention in higher education fully online programs. This aspect was rated as the second *priority or concern* in Round 2. Participants rated *instructor response time and ongoing presence in online courses* as second-most influential in Round 3, whereas this aspect was rated fourth in Round 2. *Quality of interaction, faculty-student* was rated as the top priority or concern in Round 2, but in Round 3, the aspect was rated as third. Panelists rated *quality of academic program* as fourth in Round 3; this aspect was also a second-rated priority in Round 2.

In order to allow panelists to revisit their responses from the first round (Linstone & Turoff, 2002; Skulmoski et al., 2007), the following question was posed in Round 3:

Regarding your highest ranked issue/aspect, to what degree does this correspond with your initial response regarding priority issues, concerns, or practices that influence student retention in undergraduate higher education, degree-bearing fully online programs that should be addressed?

Thirteen panelists, or 65%, answered *highly corresponds*; 7 participants, or 35%, answered *somewhat corresponds*. No panelists responded *does not correspond*.

Lastly, an open-ended question asked panelists to reflect upon their own responses and asked them to offer recommendations for future practices (Linstone & Turoff, 2002; Skulmoski et al., 2007). The question was *Regarding the issue/aspect with which you most agree, what is your recommendation for future institutional practices and policies in efforts to improve student retention in higher education fully online programs?*

Table 6
Top Recommendations from Panelists in Round 3

Recommendation	Frequency
Proper expectations should be set for students regarding online courses and programs from the start of admission or enrollment into a fully online program.	7
Institutions should have mandatory student orientations and training processes prior to students' first online course.	6
More student support services are needed for online students, including access to online enrollment and admission counseling, initially. Services such as tutoring and financial aid counseling should be readily available for students throughout their programs.	5
Students need to be provided with guidance or counseling to improve self-discipline, including time-management skills.	5
Institutions should have mechanisms in place to help identify at-risk students early in a program. And remediation should be readily, if not systematically, available to struggling students.	5
Students should be better screened for proper fit for online programs prior to enrollment. Computer access and literacy, as well as self-discipline aspects should be assessed during the admissions process.	5
Institutions should monitor instructor response time and on-going presence in online courses in order to better identify potential performance issues and professional development opportunities for online instructors.	5

Degree of Consensus

In the current Delphi study, Round 1 involved gathering responses in order to determine emergent themes. Degree of consensus in Round 1 was not considered, initially. The theme that was noted most frequently, *students receive adequate and ongoing support from institution in all areas*, was noted 14 times, however. Out of 20 participants, 70% of panelists noted that adequate and ongoing institutional support was a priority concern or impact on student retention in fully online programs.

In Round 2, panelists were asked to rate the emergent themes based on a sense of priority. Based on Vernon's (2009) description, consensus was most evident with the theme, *quality of interaction, faculty-student*, with a mean of 3.9 and a standard deviation of .31. Moving from Round 2 to Round 3, the expectation was that panelists would come to consensus by repeating the ranking of top themes. Although exact replication of responses did not occur, the issue, *student self-discipline*, ranked as the highest level of consensus, with a rating of first and second places over the second and third rounds.

Conclusion

Results from the Delphi rounds led to the identification of emergent themes regarding priority concerns or practices that may affect student retention in fully online programs:

1. Student Support and Student Connection with the Institution,
2. Quality of Interaction between Faculty and Students, and
3. Student Self-discipline.

Student Support and Student Connection with the Institution

After responses were collected, 32 emergent themes were identified. The following theme was identified most frequently: *Students need to receive adequate and ongoing support from institution in all areas (financial aid, academic, counseling, tutoring)*. Panelists' suggestion that online students should be provided with adequate and ongoing institutional support can be related to Tinto's and Bean's theories on

student retention, which linked positive student retention to students' sense of academic and social connections to a school (Herbert, 2007; Soen & Davidovitch, 2008; Veenstra, 2009; Woodley, 2004). Soen and Davidovitch (2008) noted, "The attrition-persistence outcome is a result of a longitudinal interaction between the student and the academic and social systems of the college" (p. 128).

Students may be more apt to drop-out if they do not feel adequately supported by the institution (Stanford-Bowers, 2008; Tinto, 1993; Veenstra, 2009). Stanford-Bowers (2008) noted institutional factors that might negatively influence student retention can be related to difficulties with institutions' programs, policies, and procedures, including issues with support areas such admissions, registration, financial aid, and tutoring. In Round 1, panelists identified the need for a range of student support services as a priority concern that influenced student retention in fully online programs, which might suggest that in fully online programs, such student support services were not as integrated into the total student experience as the services were in ground-based programs.

Appana (2008) posited, "Online education can appear to be an impersonal exercise, which leads students to feel 'eSolated' from instructional staff" (p. 15). In Round 1, panelists frequently indicated the need for an institution to provide adequate student support services along with the importance of a sense of community for students in online courses in the same responses. Participants noted that instructors can also help build community through ongoing presence in the online courses, along with their responsiveness to students (frequency of theme in Round 1 = 9). This theme became more prominent in Round 2.

Quality of Interaction between Faculty and Students

In Round 2, panelists received a list of themes generated from Round 1 (see Appendix H). Participants rated the 32 themes that were identified from Round 1 in terms of *priority concern or impact on student retention, medium concern or impact on student retention, low concern or impact on student retention, or no concern or impact on student retention.*

The most frequent theme in Round 1 related to the need for schools to provide students taking fully online programs with a full-spectrum of institutional support services. In Round 2, panelists shifted focus from institutional-wide support to instructor-related support. A new theme emerged as the *priority concern or impact on student retention. Quality of interaction between faculty and students* was rated as the priority concern or impact, with 90% of the panelists rating the theme as a *priority concern or impact.*

In Round 2, the most frequently identified theme in Round 1, *students need to receive adequate and ongoing support from institution in all areas (financial aid, academic, counseling, tutoring),* was identified by 45% of the panelists as being a *priority concern or impact on student retention.*

In Round 2, panelists noted that quality interactions between faculty and students were a priority concern or impact on student retention in fully online programs. The theme, *quality interactions between faculty and student,* is closely related to *importance of instructor presence and response time to students in online classes.* In Rounds 2 and 3, the two themes were named as top influences on student retention in online programs. Both can be associated with literature that suggests the importance of quality and responsive instructor actions and interactions with students in online courses (Artino, 2008; Ni & Aust, 2008; Wuensch, Aziz, Ozan, Kinshore, & Tabrizi, 2008).

Student satisfaction in online programs can be significantly impacted by perceived interaction in the online environment (Wuensch et al., 2008). Wuensch et al. added, "Instructor interaction had the largest influence on student satisfaction with the distance course. Student-instructor interactions enhance student retention, self-motivation, and pass rates" (p. 525). Most dissatisfaction among students was the result of perceived poor quality of interaction with the instructors and among other students (Wuensch et al.). In Round 3, *Instructor response time and ongoing presence and activity in online courses* was rated in second place in the final round as influencing student retention (30% rated the theme as *most influential*).

Student Self-Discipline

Learner-centered models “emphasize students’ responsibility for their own learning” (Howell et al., 2003, para. 31). Responses in Round 2 suggest that panelists reported that the ability for students to *self-regulate* (Artino, 2008) had a high influence on student retention in online programs. Panelists rated *student self-discipline* as having the second highest *priority concern or impact on student retention*. In online education, the view that instructors deliver knowledge to learners has been replaced with the idea that students become more responsible for their own learning (Howell et al., 2003; Stanford-Bowers, 2008). The tenet is that students taking responsibility for their own learning helps promote authentic and meaningful learning (Khare & Lam, 2008). The panelists’ responses in Round 2 suggest that if students do not have sufficient self-discipline, the likelihood of students dropping out from fully online programs is higher than in ground-based programs, where students often receive more directives in the face-to-face environment.

Refinement of Themes

In Round 3 of a Delphi study, “The research participants are given the opportunity to change their answers and to comment on the emerging and collective perspective of the research participants” (Skulmoski et al., 2007, p. 5). Panelists again rated *student self-discipline* as having a high influence on student retention in fully online programs (40% rated the theme as *most influential*). The theme, *quality of interaction between faculty and students*, which was rated as the highest *impact or concern* in the second round, was rated by just one panelist (5%) as being *most influential* on student retention in Round 3.

Panelists continued to refine themes that were rated as top priority or concern for student retention in fully online programs, with *student self-discipline* and *instructor response time and ongoing presence* both rated as top influential factors (70% total) in the final round. They confirmed that their top rated factors corresponded with their responses in the first round. Based on the recurring and top-ranked themes, panelists offered recommendations that may positively influence student retention in fully online programs. Panelists provided recommendations only in Round 3.

Limitations

One limitation of the study was that one research question that provided framework for the study was not sufficiently addressed by the end of the final round. Research Question 3 was *What will the experts identify are the primary impacts of the issues, concerns, or practices on students’ educational experiences?* The point of the question was to delve into potential impacts, positive or negative, that the increasingly present attention to student retention may be effecting. The research question was not explicitly posed to panelists, and because the panel was comprised of administration-level experts, not faculty, perhaps that idea did not occur to many of them, who, in many instances, are responsible for student retention metrics. Issues and priorities that were refined in the Delphi process related solely to influence on student retention, not on how student retention efforts may be impacting the overall student experience. This is a limitation of the study because one of the guiding research questions was not addressed as anticipated.

An initial undefined target for a level of consensus might have limited the study’s depth in formulating subsequent questions. A defined number of rounds might have also limited the depth to which the guiding research questions could be answered. A fourth round might have allowed for more probing and more insight toward perceived impacts of retention efforts on students’ overall educational experience.

Recommendations

Recommendations offered by the panel of online education experts may help to substantiate consistency in organizational best practices that may improve student enrollment in fully online programs over time. Most frequently identified recommendations concentrated on student needs and subsequent support for students, followed by instructor and institutional recommendations, followed by online course-specific design and set-up. Students’ connection to an institution, both socially and academically, not only affect traditional, ground-based students, but panelists’ recommendations in this study also suggest the aspects are important to online student retention.

Implications

Recommendations included student support needs and services, instructor-related actions, and online course-related design. Implications of the recommendations include the need to work with admission departments to set more realistic expectations for prospective online students, and perhaps to implement a set of questions or pre-tests that may better assess student fit and readiness for the online environment. Once students are admitted to an online program, the next set of recommendations imply that instructors have great influence over student satisfaction in individual online courses. Implications include the need for rigorous hiring and training procedures for online faculty. Instructors should set clear expectations in classes, and their presence and ongoing high participation was indicated multiple times by the panel of experts as being highly influential on student retention. Ongoing monitoring and professional development for instructors may then be necessary to help ensure these actions and activities are taking place in individual online courses.

The importance of a sense of community for online students was noted frequently by panelists and through research on retention in general (Soen & Davidovitch, 2008; Tinto, 1993). Participants referred to the importance that institutions offered a full-range of student support to online students as an important factor that might translate into a sense of community. Implications include the need for more, and more integrated, student support to be provided to students taking online programs, just as the services (tutoring, financial aid advising, general counseling, and other student services) are offered to students taking ground-based programs. Such recommendations may translate into policy, structural, or organizational changes that could positively affect student retention in undergraduate online programs.

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