



# Concerns and Opportunities for Online Student Retention

**H**igher education is undergoing major changes because of increased demands for flexible learning. To meet these demands, online education is developing as an essential mode of delivery and is transforming the educational landscape. This higher education transformation presents us with institutional and instructional challenges (Conceição & Lehman, 2011). These challenges bring into question the concepts of presence, communication, and interaction; redefine the characteristics of the higher education learner; and bring into play new ways of learning.

## **EVOLVING CONCEPTS OF PRESENCE, COMMUNICATION, AND INTERACTION**

To help the reader become aware of the challenges and better understand the evolution of the higher education landscape due to technological advances, we suggest three institutional classifications that illustrate these changes: brick-and-mortar, brick-and-click, and click-link-and-connect. These institutional classifications explain the changing concepts of presence, communication, and interaction in higher education.

*Brick-and-mortar* is the traditional higher education environment, where learners live on campus and are present to others in a specific location; walk to classes; attend regular courses during normal working hours; participate in campus activities; and communicate, socialize, and interact with other students and instructors within the confines of the campus area (Conceição & Lehman, 2011).

*Brick-and-click* is the traditional higher education campus environment, where learners reside in campus housing or near campus, or commute with the advantages of the innovative use of technology (Carroll-Barefield, Smith, Prince, & Campbell, 2005). In this environment, learners communicate with others mostly via technology but also have the advantage of being able to interact with others face-to-face.

In this book, we are introducing the term *click-link-and-connect*, which describes a virtual campus environment composed solely of technology, where presence is elusive, communication is electronic, and interactions take place in cyberspace.

## **REDEFINING THE CHARACTERISTICS OF THE HIGHER EDUCATION LEARNER**

Whereas the majority of *brick-and-mortar* students are traditional college-age students attending classes immediately after high school, some *brick-and-click* students may still live on or near campus or travel to campus but also take advantage of technology, giving them opportunities to better meet their learning and working needs. The *click-link-and-connect* students are those who do not live on campus but learn at a distance through a virtual campus. In this group, many of the students are nontraditional, older, place-bound, goal-oriented, and intrinsically motivated and have full-time jobs and family obligations (Dabbagh, 2007).

## **NEW WAYS OF LEARNING**

Changes in the higher education environment and in learner characteristics call for new ways of learning. Modern technologies have provided the opportunity to learn anytime, anywhere, and at any pace, both informally and formally. Learning is no longer a part of a single formal setting—rather, it is everywhere.

Think of a mobile device that provides access to e-mail, the Internet, games, files, library resources, videos, music, blogs, social networking, and so on. Learning could take place through any of these applications in any location the user chooses. In this type of technology environment, the boundaries between informal and formal learning tend to blur, and students can lose focus.

Although it is more comfortable for students to interact in the informal environment, in the formal environment there is a need for purpose and guidance. With so many available applications, students can easily become distracted and overwhelmed and may lack motivation to accomplish course tasks. With proper direction on how to manage these ubiquitous technologies and focus on learning, students can be successful.

One of the major issues in online education has been students' lack of motivation to persist in their courses or programs. This chapter addresses this issue, as well as the causes for increased enrollment and the state of higher education and online learning. The chapter describes concerns related to online student dropout or retention and persistence in higher education and opportunities pertaining to these concerns. The chapter also identifies new learner behaviors and skills in the 21st century. The chapter concludes with an explanation of the study we conducted to fill the gap in knowledge about motivation and support strategies that could reduce online learner dropout in higher education. The study served as the basis for our writing this book.

## **CAUSES FOR INCREASED ENROLLMENT**

According to Allen and Seaman (2010), institutions of higher education can have a positive influence on overall enrollments and on the increased need for online learning in the United States. At least three causes are generating increased enrollment in institutions of higher education: the economic downturn, market demands, and the exponential rate of emergence of new technologies.

In times of economic downturn, people tend to return to school. This tendency generates higher enrollments, with an impact on institutions' financial situations. Market demands can initiate competition, requiring institutions to reexamine their brick-and-mortar infrastructure and consider the brick-and-click option to increase enrollments and reach out to a wider population through online learning.

Another positive influence on overall enrollments is the rapidly changing development and use of technologies. The life of a technology today is very short and demands constant change and adaptation from users, who must learn new skills. Some advantages of emerging technologies in online education are the capability of creating presence, enhancing communication, and providing opportunities for interaction (Lehman & Conceição, 2010). People highly value these qualities in the face-to-face setting, and these concepts should be the basis for designing brick-and-click and click-link-and-connect environments. In these environments, higher education institutions are finding a new source of revenue without having to build additional physical facilities, recognizing increasing competition, and using emerging technologies to reach out to new audiences (Allen & Seaman, 2010; Maguire, 2005). One example related to this change is the advent of flexible degree programs that integrate MOOCs (Massive Open Online Courses) into their offerings (Ward, 2013).

## **THE STATE OF HIGHER EDUCATION AND ONLINE LEARNING**

A 2009 report by Allen and Seaman (2010) shows that 66% of higher education institutions in the United States reported growing requests for new online courses and programs and 73% reported increasing demand for existing online courses and programs. This compares to 54% of growing requests for existing face-to-face courses and programs.

In an updated report, Allen and Seaman (2011) explain that in 2010 there were more than six million students (or 31% of students) in public, private, and for-profit institutions in the United States taking at least one online course. Participation in online courses has grown by 358% since 2003. Though the growth in online learning enrollments has been outstanding, there is still a misperception by academic leaders and faculty that learning outcomes for online education are inferior to those of face-to-face instruction. However, academic leaders at institutions with online offerings have a much more favorable opinion of the learning outcomes for online courses than do those at institutions with no online courses or programs (Allen & Seaman, 2011).

It is evident that online education still suffers from lack of knowledge of its potential by many leaders. In 2010, there was a small increase (2% over 2009)

in the number of U.S. institutions of higher education reporting that online education is a critical part of their long-term strategy. In this instance, for-profit institutions are more likely to include online learning in their strategic plans (Allen & Seaman, 2011). Based on the 2011 report by Allen and Seaman, distance education continues to show growth. As a result, concerns and opportunities for online student retention must be considered.

## **CONCERNS FOR ONLINE STUDENT RETENTION**

Online student retention has been a major topic of discussion in higher education for more than a decade. This discussion has focused on student dropout (or attrition) and persistence. Most articles have provided anecdotal information or individual studies carried out by universities (Angelino, Williams, & Natvig, 2007). In the past decade, there have been a few national reports on student enrollment, but none has focused specifically on dropout or persistence. What has been widely addressed in the literature is the comparison between the effectiveness of online learning and traditional learning.

Although studies support the effectiveness of learning online compared to learning in the traditional classroom (Hobbs, 2004; Tallent-Runnels et al., 2006), students often fail to complete online courses. In some studies, it is noted that as many as 50–70% drop out of their online courses or programs (Carr, 2000; Roblyer, 2006; Rovai & Wighting, 2005; Simpson, 2004). Among the reasons for student dropout are feelings of isolation, frustration, and disconnection; technology disruption; student failure to make contact with faculty; inadequate contact with students by faculty; lack of student and technology support; lack of instructor participation during class discussion; lack of clarity in instructional direction or expectation; and lack of social interaction. Another way to view the dropout problem is to look at the factors for student persistence in online education. These factors can help us determine what strategies are needed to retain students, reduce dropout rates, and help students persist in online courses or programs.

### **Reasons Online Students Drop Out**

A review of the literature reveals many reasons for online student dropout. For example, Hara and Kling (2001) and Palloff and Pratt (1999, 2005) address the

physical separation of individual students in online education as a reason for their feeling isolated and a major cause of student confusion and anxiety, leading to problems with course retention. The findings of Motteram and Forrester (2005) and Abel (2005) reveal that technology failure and lack of instructor feedback are also reasons for online student dropout. In the online environment, students tend to become frustrated when technology does not function well and lose confidence in their work when they do not receive instructor feedback. For these reasons, technology and student support are essential.

One way for providing support for students is through contact. Motteram and Forrester (2005) say that students rate contact with faculty as more important than contact with other students. Contact can be either proactive or reactive (Simpson, 2004). While proactive contact or intervention means “taking the initiative to contact students either in a teaching or an advisory environment” (p. 80), reactive contact involves responding to student-initiated communication. Proactive contact with a student or interventions from the institution can have an impact on the retention of online learners. Although both proactive contact and reactive contact are important, proactive contact is gaining more attention because students who do not make contact with available systems may be more likely to drop out (Simpson, 2004).

Another way to support students is related to instructor assistance. Chyung and Vachon (2005) found that lack of instructor participation during class discussion and lack of clarity in instructional direction or expectations can cause confusion and frustration and are reasons that students drop out. Inadequate assistance from instructors can also create student dissatisfaction in the online environment and has implications for student retention.

Other reasons that online students drop out were described by Muilenburg and Berge (2005), who identified eight barriers to online learning. We grouped the eight barriers into three categories: skill level, motivation, and support. In Muilenburg and Berge’s study, students identified the barriers to their skill level as academic and technical. In the academic area they lacked skills in reading, writing, or communication. In the area of technical skills they feared the use of new tools and software and their unfamiliarity with technical tools for online learning.

Motivation barriers were intrinsic and extrinsic. Intrinsic motivation barriers included the characteristics of procrastination, selecting easier

aspects of an assignment to complete, or the feeling that the online learning environment was not innately motivating. Extrinsic motivation barriers involved social interaction in which the students felt a lack of peer collaboration online, absence of social cues, or fear of isolation in online courses (Muilenburg & Berge, 2005).

In the area of support, administrative, financial, and technical issues were considered barriers (Muilenburg & Berge, 2005). Administrative issues emerged when administration had control over course materials and the materials were not delivered on time, when academic advisors were not adequately available online, and when there was a lack of timely instructor feedback. Financial barriers occurred when access to the Internet was too expensive. Technical issues arose when there was a lack of consistent platforms, browsers, and software; in addition, a lack of technical assistance caused obstacles to learning.

The barriers cited in Muilenburg and Berge's (2005) study are basic reasons for online student dropout. These reasons can create student frustration, dissatisfaction, lack of confidence, loss of focus, and lack of motivation and have implications for the ability of students to persist in online courses and program. Table 1.1 summarizes the common reasons for online student dropout and how they affect students.

### **Factors for Student Persistence in Online Education**

Persistence means continuing decisively on a course of action in spite of difficulty or opposition. Findings from several studies of student persistence in online higher education have helped us look at the factors involved in retaining students and reducing dropout rates. One model that struck us in looking at persistence in the online environment was Rovai's (2003) composite persistence model, a combination of other models related to persistence.

In his model, Rovai (2003) includes the following elements: student characteristics and student skills (prior to admission) and external and internal factors (after admission). Using this model, institutions can detect students who are at risk to become dropouts and determine intervention methods. For example, if an institution knows the deficiencies in an online student's academic preparation and skills prior to admitting the student, the institution can rectify these deficiencies with early intervention.

**Table 1.1. Common Reasons for Online Student Dropout**

<b>Common Reasons for Online Student Dropout</b>	<b>How Reasons Affect Students</b>
Physical separation	Feeling of isolation and disconnection
Low academic skill level	Leading to remediation in reading, writing, or communication
Low technical skill level	Fearing technology and new software
Lack of intrinsic motivation	Leading to procrastination
Lack of extrinsic motivation	Feeling of isolation
Lack of faculty contact with student	Leading to dissatisfaction
Lack of clarity in direction	Leading to loss of focus
Lack of expectation	Feeling of confusion
Technology failure	Feeling of frustration and loss of confidence
Lack of administrative, financial, and technical support	Causing obstacles to learning
Lack of instructor feedback	Feeling of frustration and loss of confidence

Once a student is enrolled in an online program, the model can be used to recognize external factors to help with student persistence. External factors include nonschool issues that conflict with academic life, such as financial need or child care arrangements. Internal factors are affected by the student's needs and include consistency and clarity of online programs, policies, and procedures; self-esteem; feeling of identity with the school; social integration; and ready access to support services.

One study that addresses persistence from the student's perspective on online participation is Tello's (2007). His study found that student perceptions about their contributions in asynchronous discussion forums and students' frequent use of the forums accounted for 26% of the variance in course persistence rates. This finding shows that the interactive strategies used in the course affected student attitudes and helps explain why students persist or withdraw from online courses.



Another study that caught our attention was Müller's (2008) investigation of undergraduate and graduate women learners' persistence in online degree-completion programs. Her findings suggest that multiple responsibilities and insufficient interaction with faculty, technology, and coursework are the major factors for women's lack of persistence. However, motivation to complete degrees, engagement with the learning community, and gratitude for the convenience of completing a degree online supported persistence. It appears that a learning community approach in an online course or program can be a strategy for retaining students (Brown, 2001).

Park and Choi's (2009) study on factors influencing adult learners' decision to drop out or persist in online learning revealed that persistent learners and dropouts differ in their individual characteristics, course design factors, and workplace support factors. In their study, females accounted for 74.5% of persistent learners and 65.3% of dropouts. Learners in both groups ranged in age from 20 to 39 years old. In the dropout group, age ranged between 20 and 29 years old, the equivalent of 26.5%. Their findings showed that by addressing course design, such as enhancing the relevance of the course, institutions could have lower dropout rates. The results also indicated that adult learners need support from their workplace to persist in and complete their online courses.

Another study that addressed factors in online student persistence was McGivney's (2009) investigation of the persistence of online adult students in two community colleges. This study showed that the strongest predictors of course completion were the desire to complete a degree, previous experience in online courses, and assignment completion. These findings give us clues about how important it is to understand learners' characteristics and how prepared students are for the online environment to help them persist in their online courses and programs.

Rovai's (2003) composite model provides us with a framework to create an environment conducive to a successful online learning experience. It is critical for institutions to recognize student characteristics and skills prior to admitting a student to an online program. As McGivney's (2009) findings indicate, previous experience in online courses is a predictor of persistence. It is also essential for institutions to be aware of factors that influence student academic life. Müller's (2008) findings cite students' multiple responsibilities, and Park

and Choi's (2009) findings address the importance of workplace support. These factors influence how well a student can do after admission to an online program.

The internal factors in Rovai's (2003) composite model encompass institutional interventions and are the ones over which institutions have the most control. Institutional interventions are based on student needs, pedagogy, and institutional support, which can be translated into design, instructional, and support strategies in the classroom. Based on the persistence literature, there is no simple formula to guarantee student success in online learning, because success involves a variety of factors. Institutions control the services they provide, but not external factors. When factors external to the institution come into play with factors internal to the institution, however, the institution needs to understand its learners, use appropriate strategies, and provide effective support in order to retain students and avoid dropout.

## **OPPORTUNITIES FOR ONLINE EDUCATION**

Online learning in higher education presents concerns, but also opportunities. These opportunities can be turned into benefits for students who take advantage of them. Some of the benefits that online education provides are better access, convenience, flexibility, efficiency, creative risk, community building, connection with others without boundaries, and a green environment (Conceição & Lehman, 2011). Students who would otherwise be unable to further their education can have better access through online learning. Online learning is convenient for those who work full time and have families, because students do not need to travel to a physical institution and can work their courses around their own schedules.

Online learning has been called “anytime, anywhere, any pace education,” a description that highlights the flexibility online learning provides to learners. With the advance of technology, we suggest an additional term: “any way education.” Because of the proliferation of innovative technologies available today, students can learn any way they want. For example, students can take an online course that may include using a smartphone, a tablet, a computer, a personal digital assistant (PDA), a global positioning system (GPS), a smart TV, and so on. This versatility provides multiple opportunities for students to learn.

Technology can provide the opportunity to expand knowledge and extend the reach to people and places never considered before. Technology can make it possible to save time, travel, and cost. Technology can help avoid the necessity to take chances by traveling to other locations. Taking creative risks can provide opportunities for students to learn in new ways. Participating in virtual communities, social networking, and 3D environments allows for thinking, feeling, and acting as though students were face-to-face. These online environments connect students to diverse people globally and bring them closer together in communities that are no longer limited to physical places. Students can become psychologically and mentally present with one another without boundaries (Lehman & Conceição, 2010).

Finally, online education can be a benefit for a green environment because it allows students to store information and knowledge in digital devices and carry them and other “green” technologies anywhere. These benefits are not all-inclusive, but they provide a starting point for why online education can be valuable in the 21st century.

In this book, we suggest three institutional classifications based on changes that have transformed the higher education landscape: brick-and-mortar, brick-and-click, and click-link-and-connect. The changes are caused by the economic downturn, market demands, and the exponential emergence of technologies. These causes have impacted the state of higher education and online learning, bringing concerns and opportunities. The concerns can help us see the potential impact of online learning and the possible opportunities for online education. As online courses continue to grow in number, it is essential to provide quality course design, exemplary instructional strategies, and strong support to increase online student retention. It is also important to understand students’ characteristics and the new learner behaviors and skills needed to survive in the 21st century.

## **NEW LEARNER BEHAVIORS AND SKILLS IN THE 21ST CENTURY**

The ECAR National Study of Undergraduate Students and Information Technology (EDUCAUSE, 2011) provides significant data related to student technology ownership, use, and value in the United States. Today, 9 in 10 students

own laptops, more than half have smartphones, and 1 in 10 possesses a tablet. When it comes to technology use and value, students state that technology provides them with easy access to resources and assists them with their administrative tasks and with tracking their academic progress. The results are a more productive academic life and an increased feeling of being connected and engaged in an immersive, relevant experience. Data confirm that student behaviors have changed due to technology usage.

More than a decade ago studies showed that typical online learners were between the ages of 22 and 50 years old, nontraditional, and enrolled in online programs because of work and family responsibilities (Dutton, Dutton, & Perry, 2002). These learners were self-motivated and preferred independent learning (Diaz & Bontenbal, 2001).

A more recent report by Aslanian and Clinefelter (2012) concerning 1,500 prospective and current online students in the United States shows a different online learner profile. Key findings in this report suggest that now individuals from a variety of age groups are taking online courses (40% are younger than 30 years old; 1 in 5 is younger than 25 years old). As high school students and traditional-age college students become more experienced with online education, the percentage of students 30 years and younger will increase.

Although students are interested in online degree programs, certificates will be the most attractive and their popularity is likely to grow. Students enrolled in online programs prefer a nearby campus or service center (within 100 miles) for their online studies. Transfer credits are common to most undergraduate online students prior to entering the intended institution (Aslanian & Clinefelter, 2012).

The changes in student characteristics and behavior go along with the interest in a compressed or flex-degree program of study for a reasonable cost at a reputable institution. For example, in the state of Wisconsin, the University of Wisconsin Flexible Option offers an accessible and inexpensive alternative for earning a degree. This option provides a portfolio of degrees, certificates, and courses, primarily from existing programs, offered through self-paced and competency-based formats (Ward, 2013).

Another online learning option that is being explored by higher education is the emergence of MOOCs (Massive Open Online Courses). The goal of

MOOCs is to reach out to a large number of participants through open Web access. Initially, MOOCs were offered free of charge; students took MOOCs to learn something new for the sake of learning or to prepare for a competency test. Today, in addition to taking some MOOCs without charge, participants may pay a fee for courses that lead to a certificate or degree (Waldrop, 2013).

Changes in student behavior due to technology usage also bring new demands for learning and teaching and new skills to function successfully in the culture of the 21st century. According to Carr (2011), “technology isn’t the problem anymore, but what to do with it” (p. 68). Jukes, McCain, and Crockett (2010) suggest five student fluencies (or skills) needed to succeed in the new learning environment: solution, information, collaboration, creativity, and media. Solution skills consist of creativity and problem-solving skills applied in real life. Information skills give one the ability to access raw data using textbooks, cell phones, wikis, social networks, and other digital and nontraditional sources, images, sound, and video, as well as the ability to gather information and critically evaluate the data found.

Collaboration fluency comprises the ability to work online with virtual and real partners to produce original artifacts. Creativity is the process of being innovative through design, art, and storytelling. Media fluency involves two elements: (1) the ability to analyze and interpret the message of communication media, determine how to select media, and evaluate the usefulness of the message, and (2) the ability to develop and publish original digital artifacts, determining the most appropriate medium for a message (Jukes, McCain, & Crockett, 2010).

With changes in student population behaviors and increased demands for online learning in higher education, there is a need to explore ways to retain students and help them persist in the online classroom. Based on our own experience in administering programs and teaching online, we were concerned about student retention. Our first step was to conduct an extensive library, database, and Web search for empirical studies on online student retention in higher education. In our literature review, we conducted a search by using the terms “student retention, persistence, and motivation”; “online learning and teaching”; “online education”; and “online course design strategies and support,” along with a few variations. We focused our search primarily on studies

and reports ranging from 2002 to 2012. We found 41 empirical studies and four study reports.

We also found a few books related to retention in higher education, but no books related to retention in the online environment. We found a number of research-based manuscripts pertinent to student retention and persistence in online education, published between 1999 and 2001. We found no practical books detailing specific strategies to overcome the barriers influencing student retention and dropout in the online environment. At the time of our writing this book, the few books and manuscripts we found provided surface information and did not address the topic in depth.

## **FILLING THE GAP: STRATEGIES FOR ONLINE PERSISTENCE**

To fill the gap in knowledge related to online student motivation and retention strategies, we decided to expand on the existing literature by conducting a study (Conceição & Lehman, 2012; 2013). Our study investigated students' strategies for staying motivated online and instructors' strategies for supporting students and helping them persist in their online courses. Data were collected by surveying higher education students ( $n = 439$ ) and instructors ( $n = 60$ ). Students completed a survey (see Appendix 1) addressing strategies that motivated and supported their online learning. Instructors completed a survey (see Appendix 2) addressing strategies they used to motivate and support their online students. Using purposeful sampling nationwide, we recruited students in higher education who had taken at least one online course and instructors who had taught at least two online courses.

Participants in the study included students and instructors from 10 disciplines: art, library and information studies, social work/criminal justice, engineering, business, architecture, nursing, health sciences, humanities, and education. Survey results provided descriptive statistics and qualitative comments. We used the constant comparative analysis method to compare incidents to other incidents, incidents to categories, and categories to other categories (Creswell, 1998). Coding of data involved looking for themes and patterns. The two different sets of participant surveys were used to triangulate data, allowing us to cross-examine the data from different perspectives.

The demographic information showed that of the student respondents, 62% were undergraduates and 38% graduate students. Of the instructor respondents, 27% taught undergraduate courses, 33% graduate courses, and 40% taught both. Course duration showed that 85% of the students attended 15–16 week courses, 21% attended 8-week courses, 15% attended 6-week courses, 15% attended 4-week courses, and 7% responded “other.” Course duration for instructors indicated that 94% taught 15–16 week courses, 15% taught 8-week courses, 18% taught 6-week courses, 9% taught 4-week courses, and 7% responded “other.” Among the student respondents, 50% had previously taken four or more courses. Among the instructor respondents, 67% had previously taught four or more courses. Table 1.2 provides a summary of participants’ demographics.

**Table 1.2. Study Participants’ Demographics**

<b>Students (n = 439)</b>	<b>Instructors (n = 60)</b>
<b>Course level</b>	<b>Course level</b>
62% undergraduate	27% taught undergraduate courses
38% graduate	33% taught graduate courses
	40% taught undergrad and grad courses
<b>Course duration</b>	<b>Course duration</b>
85% 15–16 weeks	94% 15–16 weeks
21% 8 weeks	15% 8 weeks
15% 6 weeks	18% 6 weeks
15% 4 weeks	9% 4 weeks
7% other	7% other
<b>Number of courses taken</b>	<b>Number of courses taught</b>
16% 1	6% 1
18% 2	22% 2
16% 3	4% 3
50% 4 or more	67% 4 or more

Based on the analysis of the survey responses and our own experiences, the next three chapters are organized into types of strategies used by students and instructors. Chapter 2 focuses on design strategies for retaining online students, Chapter 3 addresses student strategies for staying motivated online, and Chapter 4 identifies support strategies for helping online students persist. The last chapter in this book brings all these strategies together and offers our Persistence Model for Online Student Retention.